ยุทธศาสตร์การปฏิรูปการบริหารการศึกษาเพื่อเสริมสร้างความเป็นพลเมืองคุณภาพในกัมพูชา
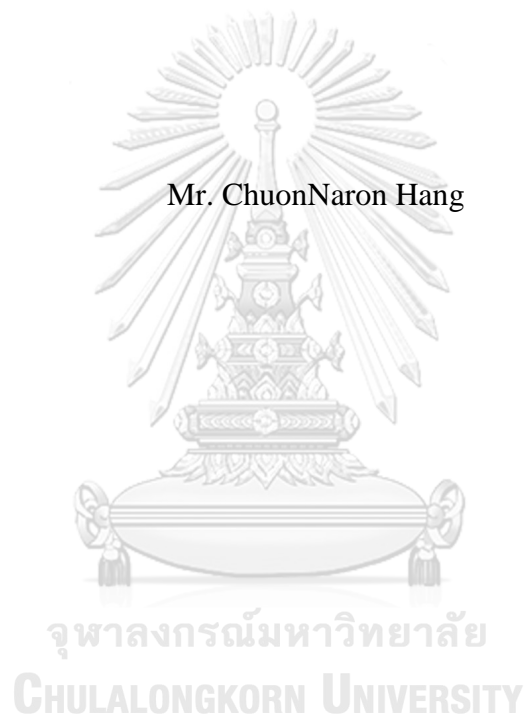
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Education Management Reform Strategies for Enhancing

the Quality Citizenship in Cambodia

Mr. ChuonNaron Hang

A Dissertation Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy Program in Educational Administration
Department of Educational Policy Management and Leadership
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ชวนนะรน ฮาง : ยุทธศาสตร์การปฏิรูปการบริหารการศึกษาเพื่อเสริมสร้างความเป็นพลเมืองคุณภาพในกัมพูชา (Education Management Reform Strategies for Enhancing the Quality Citizenship in Cambodia) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ศ. ดร. พฤทธิ์ ศิริบรรณพิทักษ์, อ.ที่ปรึกษาวิทยานิพนธ์ร่วม: ผศ. ดร. ชญาพิมพ์ อุสาโห, 461 **หน้า.**

การวิจัยครั้งนี้ มีวัตถุประสงค์เพื่อ 1) ศึกษากรอบแนวคิดของการปฏิรูปการบริหารการศึกษา และความเป็นพลเมืองคุณภาพ 2) ศึกษาสภาพปัจจุบัน และสภาพที่พึงประสงค์ของการปฏิรูปการบริหารการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพในกัมพูชา 3) ศึกษาวิเคราะห์ความต้องการจำเป็นในการปฏิรูปการบริหารการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพในกัมพูชา และ 4) พัฒนายุทธศาสตร์การปฏิรูปการบริหารการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพในกัมพูชา ซึ่งใช้ระเบียบวิธีการวิจัยแบบวิจัยและพัฒนา (R & D) การเก็บรวบรวมข้อมูลเกี่ยวกับสภาพปัจจุบันและสภาพที่พึงประสงค์ของการปฏิรูปการบริหารศึกษา มีผู้ให้ข้อมูลหลักจำนวน 710 คน ได้แก่ ผู้กำหนดนโยบายการศึกษา จำนวน 10 คน ผู้อำนวยการสำนักงานการศึกษาจำนวน 30 คน ผู้อำนวยการโรงเรียนจำนวน 80 คน ครู จำนวน 150 คน คณะกรรมการสถานศึกษาจำนวน 80 คน นักเรียนจำนวน 300 คน และผู้เกี่ยวข้อง จำนวน 60 คน ประเมินร่างยุทธศาสตร์การปฏิรูปการบริหารการศึกษาเป็นรายบุคคลโดยผู้ทรงคุณวุฒิจำนวน 51 คน และประเมินโดยผู้ทรงคุณวุฒิจำนวน 14 คนในการประชุมสนทนากลุ่ม วิเคราะห์ข้อมูลโดยใช้สถิติเชิงบรรยายและสูตรคำนวณค่าความต้องการจำเป็น (PNI $_{modified}$) เครื่องมือที่ใช้ในการวิจัยประกอบด้วย แบบสอบถาม แบบการประเมินยุทธศาสตร์ และแบบการสนทนากลุ่ม

ผลการวิจัยพบว่า 1) ความต้องการจำเป็นในการปฏิรูปการบริหารการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพ อันดับที่ 1 คือการปฏิรูปการบริหารการเงินการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพ อันดับที่ 2 คือการปฏิรูปการบริหารงานทั่วไปเพื่อเสริมสร้างพลเมืองคุณภาพ อันดับที่ 3 คือการปฏิรูปการบริหารวิชาการเพื่อเสริมสร้างพลเมืองคุณภาพ (PNI $_{modified}$ = 0.360) และอันดับที่ 4 คือการปฏิรูปการบริหารบุคคลเพื่อเสริมสร้างพลเมืองคุณภาพ 2) ยุทธศาสตร์การปฏิรูปการบริหารการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพในกัมพูชา ประกอบด้วย 4 ยุทธศาสตร์หลัก และ 12 ยุทธศาสตร์รอง ซึ่งได้จัดลำดับตามอันดับความต้องการจำเป็นได้แก่ (1) ปฏิรูปการบริหารการเงินการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพ ประกอบด้วย 3 ยุทธศาสตร์รอง คือ (1.1) เพิ่มความเป็นอิสระ และความรับผิดชอบที่ตรวจสอบได้ในด้านการบริหารการเงินของโรงเรียนเพื่อเสริมสร้างพลเมืองคุณภาพ (1.2) ดำเนินงานระบบตรวจสอบงบประมาณด้านการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพ และ (1.3) เชื่อมต่อระหว่างงบประมาณกับนโยบายการศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพ (2) ปฏิรูปการบริหารงานทั่วไปเพื่อเสริมสร้างพลเมืองคุณภาพ ประกอบด้วย 3 ยุทธศาสตร์รอง คือ (2.1) รับประกันให้ชุมชนเข้าไปมีส่วนร่วมในการบริหารโรงเรียน (2.2) นำรูปแบบการบริหารโรงเรียนเป็นฐานไปปฏิบัติใช้เพื่อเสริมสร้างพลเมืองคุณภาพ (2.3) กำหนดนโยบาย และแผนยุทธศาสตร์การศึกษาเพื่อเสริมสร้างพลเมืองคุณภาพ (3) ปฏิรูปการบริหารวิชาการเพื่อเสริมสร้างพลเมืองคุณภาพ ประกอบด้วย 3 ยุทธศาสตร์รอง คือ (3.1) ดำเนินงานการประเมินผลการเรียนของนักเรียนเป็นประจำเพื่อเสริมสร้างพลเมืองคุณภาพ (3.2) ส่งเสริมวิธีการสอนเพื่อเสริมสร้างพลเมืองคุณภาพ (3.3) บูรณาการความเป็นพลเมืองที่ดีในหลักสูตร และคู่มือการเรียน เพื่อเสริมสร้างพลเมืองคุณภาพ และ (4) การปฏิรูปการบริหารบุคคลเพื่อเสริมสร้างพลเมืองคุณภาพ ประกอบด้วย 3 ยุทธศาสตร์รอง คือ (4.1) พัฒนาครูประจำการ โดยเน้นที่วิธีการสอน และระบบการติดตามดูแลครู เพื่อเสริมสร้างพลเมืองคุณภาพ (4.2) พัฒนาการผลิตครู เพื่อเสริมสร้างพลเมืองคุณภาพ (4.3) นำระบบการประเมินผลงานของครูไปใช้เพื่อเสริมสร้างพลเมืองคุณภาพ

ภาควิชา	นโยบาย การจัดการและความเป็นผู้นำทางการศึกษา	ลายมือชื่อนิสิต _____
		ลายมือชื่อ อ.ที่ปรึกษาหลัก _____
สาขาวิชา	บริหารการศึกษา	ลายมือชื่อ อ.ที่ปรึกษาร่วม _____
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KEYWORDS: EDUCATION MANAGEMENT REFORM STRATEGY / QUALITY CITIZENSHIP / CAMBODIA

CHUONNARON HANG: Education Management Reform Strategies for Enhancing the Quality Citizenship in Cambodia. ADVISOR: PROF. PRUET SIRIBANPITAK, Ph.D., CO-ADVISOR: ASST. PROF. CHAYAPIM USAHO, Ph.D., 461 pp.

This research study aimed to 1) study the conceptual framework of education management reform and the quality citizenship; 2) study the current and desirable state of education management reform for enhancing the quality citizenship in Cambodia; 3) find out the needs in education management reform for enhancing the quality citizenship in Cambodia; 4) develop education management reform strategies for enhancing the quality citizenship in Cambodia. This study employed the research and development method (R&D). The data were collected from 710 respondents, consisting of 10 education policymakers, 30 Directors of MoEYS departments, 80 school administrators, 150 teachers, 80 School Support Committee members, 300 students and 60 other stakeholders. Following the preliminary data analysis, 51 experts and stakeholders were invited to individually validate the first draft of education management reform strategies. Another 14 Cambodian experts and stakeholders were invited to focus group discussion to validate the second draft of education management reform strategies. The collected data were analyzed using descriptive statistics, and the formula of PNI $_{modified}$ was also used to find out the priority need of education management reform.

The findings revealed that 1) The first priority need in education management reform for enhancing quality citizenship in Cambodia was education financial management reform, while administrative and general management reform was the second priority, academic management reform for quality citizenship was the third priority, and personnel management reform was the forth priority. 2) The education management reform strategies for enhancing quality citizenship in Cambodia consist of 4 main strategies and 12 sub-strategies, which are prioritized by the PNI $_{modified}$ as follows: (1) Education financial management reform for quality citizenship consists of the following three sub-strategies: (1.1) Increase financial autonomy and accountability of schools for quality citizenship; (1.2) Conduct education budget audit for quality citizenship; and (1.3) Linking budget to education policies for quality citizenship; (2) Administrative and general management reform for quality citizenship consists of the following three sub-strategies: (2.1) Ensure community involvement in school management for quality citizenship 2.2) Implement school-based management for quality citizenship and (2.3) Education policy and education strategic plan for quality citizenship; (3) Academic management reform for quality citizenship consists of the following three sub-strategies: (3.1) Conduct regular assessment of students for quality citizenship; (3.2) Improve teaching methods for quality citizenship; and (3.3) Integrate good citizenship into school curriculum and textbooks for quality citizenship; and (4) Personnel management reform for quality citizenship consists of the following three sub-strategies: (4.1) Provide INSET training, focusing on teaching methods and mentoring program for quality citizenship; (4.2) Increase teacher PRESET qualifications for quality citizenship; and (4.3) Implement teacher performance assessment for quality citizenship.

Department:	Educational Policy Management and Leadership	Student's Signature _____
		Advisor's Signature _____
Field of Study:	Educational Administration	Co-Advisor's Signature _____
Academic Year:	2017	

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1
INTRODUCTION

1.1. Rationale and Problem Statement

During the 19th century, education system in Cambodia existed only in a pagoda, which had been the village moral and social training center. Cambodian males were ordained as monks to get education. Upon completion of the Buddhist studies, many of them returned to the layman life. In the Buddhist monastic (wat) schools, monks and scholars learned Buddhist religious texts. Nation building during the second half of the 19th century required the development of human resources to work in the public administration. Education reform was introduced by improving the curriculum and providing materials for teaching science and other subjects in pagoda schools. This led to education reform in the 1920s, which had two objectives: modernize the traditional education system within the wat schools and create Franco-Khmer public schools which aimed at training local executives needed by the public administration. The modernization of wat schools focused on teaching new subject matter including arithmetic, French and geography in addition to traditional subjects (Bilodeau, Pathammavong, & Le, 1955).

However, the Cambodian education system was under-developed, as by the beginning of World War II there were only 125 primary schools. For that reason, Buddhist education continued to play an important role in Cambodian education system in the first half of the 20th century. Three Buddhist educational institutions played a crucial role in the development of human resources in Cambodia: the Pali schools, the Royal Library, and the Buddhist Institute.

After independence from France in 1953, Cambodia's education system had undergone massive expansion in the 1950s and 1960s. Education became the top priority for nation building and a real educational revolution took place during the first years following Cambodia's independence. In 1953 there were some 800 primary and lower secondary schools in Cambodia. The policy was to transform modernized pagoda schools into public schools and the number of public schools increased rapidly to 1,653 in 1958 and to 5,026 in 1968/69. Some 20 percent of national budget was spent on

education. The school system served as a selection machine to prepare the best graduates for prestigious institutions of higher learning. Teacher was considered as the most prestigious profession in the Cambodian society. They were respected and well-paid (Prud'homme, 1969).

By the end of the 1960s, teaching in Khmer was gradually introduced in public schools under the Khmer civilization movement. Education was a ticket for many poor young people from rural, outback areas of Cambodia to get out of poverty and to enter political establishment. Special attention was also given to higher education, with six higher education institutions established in the 1950s. Thus, higher education experienced rapid expansion in the second half of the 1950s: the number of higher education institutions increased from 2 in 1955 to 37 in 1966, with some 7,360 students enrolled in higher education institutions.

Education expansion in Cambodia came to an abrupt stop, as civil war broke out in 1970 after the coup organized by General Lon Nol to overthrow King Sihanouk. Most schools across Cambodia had to close down and only those in Phnom Penh continued to operate. The Khmer Rouge regime between1975-1979 dealt a fatal blow to the education system in Cambodia, as civil wars and revolution led to the tragic loss of human resources in the country.

The new Cambodian Government, during 1979-1992, had to rebuild the education system from ground zero. A system of pre-service and in-service training was established. The need to retrain teachers and education managers at all levels was a priority. Immediately after 1979, no qualifications to become a teacher had been established. "Crash training courses" were organized for a large number of people who were willing to become teachers. Many of these had no more than a primary education. As a result, between 1979 and 1983, some 36,000 teachers were trained or re-trained for primary education in the "crash training" system. It means that there are many under-qualified teachers in the system.

In 1993, all Cambodian warring factions, except the Khmer Rouge, took part in the national elections in order to put an end to more than three decades of civil war. The Ministry of Education, Youth and Sports (MoEYS) engaged in the improvement of the quality of education through reform of the formal education system, the school

curriculum, textbooks, and the teaching learning approach. A full peace was only restored in 1998, when all the remnants of the Khmer Rouge joined the Royal Government of Cambodia (RGC).

Since the restoration of full peace, actions have been taken to promote socio-economic development in Cambodia. Cambodia has made significant progress in the education sector. The country has greatly expanded educational opportunities, especially by providing free universal primary education, enabling a rising share of rural girls and ethnic minorities to access educational services. The Education sector improved its budget planning and execution processes as well as introducing elements of program-based budgeting. As a share of GDP, education expenditure rose from 0.9 percent in 1997 to 1.5 percent in 2006, then to 2.3 percent of GDP in 2015. The education sector share of the total RGC recurrent budget increased from 15 percent in 2000 to 17.3 percent in 2015. Alongside the increase in budget, the net enrollment rate in primary schools increased from 87.0 percent in 1999/00 to 98.0 percent in school year 2014/15 (MoEYS, 2013-2018). Much of the gain can be attributed to abolishing formal school entry fees in 2001, the construction of primary schools in almost every village, the improvement in road infrastructure and wellbeing of the people.

Despite considerable progress, the education sector continues to face significant challenges (MoEYS, 2013-2018):

(i) Late entry: Late entry to primary school has been pervasive in basic education. Trends in gross and net intake rates showed that the bulk of the new student intake between 1999 and 2004 occurred among children older than six years of age. Children from vulnerable groups were much more likely to be over-aged. Of children entering the first grade, where the standard entry age is six, only 28.0 percent of new entrants were six or younger. Age seven was the most common school entry age, and almost half the children were entering school at least two years behind schedule.

(ii) Low completion rate: Low completion rate at the primary level and high primary repetition and dropout rates. This has been serious among poor children, and Cambodia faced difficulty in keeping those from disadvantaged backgrounds in school beyond the first few grades. Overall, approximately 85.0 percent of children who began the educational cycle graduated from primary school, but only 65.0 percent completed

basic education. Repetition and dropout rates in primary schools were also high, though Cambodia was experiencing a downward trend in these areas. Between 1997 and 2006 primary repetition rates fell from 26.3 percent to 11.0 percent. Boys are now at a slightly greater risk of dropping out than girls, and children in remote and rural areas were more than twice as likely to dropout as children in urban areas. Given the high levels of student dropout, the upper primary grades were comprised of significantly wealthier segments of the population. On the supply side, there was a high percentage of incomplete primary schools which did not offer the complete cycle of grades 1 to 6.

(iii) Barriers to access: Barriers to access include demand side factors such as high direct and indirect costs of schooling. Although the introduction of the School Operating Budget (SOB) helped reduce household direct costs to some degree, the costs were still substantial. SOB provides schools with public resources that partially compensate for the removal of school charges for registration, learning materials, and tests, particularly at the primary level. However, these expenses were relatively small in proportion to other household costs such as uniforms, pocket money, transport, and supplementary tutoring.

(iv) High pupil teacher ratio: During the last decade, the national average primary pupil to teacher ratio fluctuated from 48.1 to 50.8, despite an increase in the overall number of classrooms. Low teacher qualifications presented a risk of declining instructional quality and learning outcomes. Furthermore, teachers and school directors were not equitably deployed throughout Cambodia. This was a reality due in part to low salaries and a lack of sufficient incentives to draw staff to rural and remote areas.

(v) Overloaded curriculum: The curriculum became overloaded, frequently having new subjects added, and often made more complicated, within the framework of a competency-based curriculum. Overall, the curriculum became both more accelerated (teach faster) and congested (teach more)—moving from the essentials of reading, writing, and arithmetic to a wider range of content areas. Sometimes the new content areas were treated as separate subjects, and sometimes they were integrated into a basic subject such as Khmer Language. These frequent changes have often been difficult for most teachers, many of whom are quite senior but with weak subject knowledge, limited professional support, and few opportunities for further training.

(vi) Decreasing financial returns: Financial returns on education in Cambodia have been dropping, from seven per cent per completed year beyond primary in 2004 to six per cent in 2015, i.e. each completed year of education resulted in a gain of six percent in income. Thus for households and individuals going to work at age 16, it was financially more beneficial over the long term to leave school in Grade 7 or 8 rather than stay on to complete Grade 9 and then go to work.

(vii) Low teachers' qualifications: Educational levels of teachers in Cambodia are quite low. Among the total number of 87,203 teaching staff, (i) 1,923 teachers hold primary school certificates; (ii) 27,542 teachers hold lower secondary school certificates; (iii) 46,230 teachers hold upper secondary school certificates; (iv) 10,988 teachers hold a BA degree; (v) 518 teachers hold a Master degree; and (vi) only one teacher hold a PhD degree. Research by the World Bank also shows that the teaching quality in Cambodia is low, due to the following factors: (i) The best students are not attracted to teaching career; (ii) Pre-service training is not delivering graduates with high content mastery; and (iii) Teacher performance has been inhabited by ineffective incentives, irrelevant evaluation system, and lack of peer supports/interactions (Tandon & Fukao, 2015).

The MoEYS, under the framework of the National Strategic Development Plan of the Royal Government of Cambodia, developed the Education Strategic Plan (ESP) 2014-2018, with the ambition to develop human capital to lead the transformation of Cambodia to an upper-middle income country by 2030 and a developed country by 2050. The key factor in the coming years, as Cambodia is moving from a low-income to a middle-income status, it will significantly increase the number of youth and adults with strong literacy, numeracy and soft-skills combined with technical and vocational skills, for employment and entrepreneurship. However, the Cambodian education system is facing the following challenges of producing quality citizenship:

Firstly, the knowledge, technical, soft and life skills of the Cambodian graduates are not responsive to the level of social and economic development of Cambodia. A survey revealed that investors were not able to find sufficient numbers of skilled workers while the university graduates cannot find employments due to skill mismatch. In Cambodia, the low level of workers 'skills is the cause of their low salary.

Secondly, young people migrate to the urban areas and overseas and are not committed to the sustainable development of their communities.

Thirdly, the Cambodian economy is small and open and is therefore facing the impact of global challenges, such as climate change, global terrorism and backlashes against globalization. Thus, the Cambodian young people must be aware of these challenges to better prepare to mitigate their impacts on the country's economic development.

Fourthly, as member of ASEAN, Cambodia is required to be integrated into the region and the world. Cambodian graduates must learn to appreciate divergent cultures and values.

The world is now at the dawn of the Fourth Industrial Revolution, shaped by globalization, the unfolding technological transformation, triggered by the confluence of emerging technology breakthroughs, covering wide-ranging fields such as artificial intelligence (AI), robotics, the Internet of things (IoT), autonomous vehicles, 3D printing, nanotechnology, biotechnology, material science, energy storage and quantum computing. The new revolution will have a big impact on how the new generation will be educated in order to get them prepared for future job market (Schwab, 2016). According to research from the World Economic Forum (WEF), 35% of the skills necessary to get a job today will be different ten years from now. The Fourth Industrial Revolution will mean that, over the next ten years, a third of the skills the economy needs will change due to automation. A child today will have to change jobs at least seven times over the course of their lives – and five of those jobs don't exist yet. It is therefore impossible to predict which "hard skills" children in today's classrooms will need for jobs their future jobs. A survey of 900 companies confirmed that soft skills are the most relevant for the future. These skills include teamwork, knowledge of digital tools, an understanding of rules and regulations, responsibility and commitment. The jobs that even artificial intelligence can't replace will be those that require strong human character traits. The workers will need a positive attitude to relearn and adapt to new situations as old skills become obsolete (Thomson, 2016). Therefore, the rapidly changing technologies and economic and political landscapes of the world require that education and skill policies should take center stage. Education and skills will have

significant impact on individuals' and societies' capacity to adapt to the changes and to take advantage of the opportunities brought about by globalization (Woessmann, 2011).

Education therefore is an important factor in the access and exploitation of available science and technology, thus for long-term economic growth in Cambodia. Educated population provide the types of labor force necessary for industrial development. Cognitive skills and non-cognitive skills are important for productivity and social outcomes. Thus, policy discussion revolves around the quality of education. However, skill mismatch has emerged in Cambodia since 2008, as a result of rapidly changing social and economic landscapes, while education institutions are too slow to catch up with the changes. A successful strategy requires implementation of systemic education reform in order to deal with complex entities and to solve multiple problems simultaneously. Actually, reform should take place at the school level. There is a trend in many countries toward increasing autonomy and devolving responsibility to the school level, by encouraging responsiveness to local needs. The objectives of the school reform is to raise performance through the implementation of School-Based Management. Therefore, developing countries should embark on education reform in other to improve school and teacher characteristics, as well as child and family characteristics.

More importantly, education has been considered as an effective tool for ASEAN integration. The Initiative for ASEAN Integration (IAI) and its Work Plans focus on capacity building, language training and scholarships. Even though on average ASEAN region is doing well in education, compared to other regions of the world, this masks wide discrepancy in terms of access and quality. The shortages of skilled labor and especially skill mismatch have become common problems in all ASEAN countries. Moreover, students also lack problem-solving skills and creativity. The shortages of skilled labor and especially skill mismatch have become common problems in all ASEAN countries. To address this problem there is a desire among the ASEAN Member States to establish a single ASEAN skills recognition framework.

In this regard, education quality and not just access to education should be at the heart of education policies. Education must equip students with both cognitive and non-cognitive skills, so that they will be able to face the uncertain future. Moreover, to

meet future needs of the economy, education reforms should be implemented by both developed and developing countries to achieve the Sustainable Development Goals (SDGs), notable lifelong learning, with strong emphasis on the 21st century skills. Improving critical thinking and problem solving skills of the students is essential and will enable students to adapt better to the rapidly changing technologies and labor markets. In response to the above educational challenges, the Cambodian Ministry of Education, Youth and Sport (MOEYS) has embarked on education reform by adopting the Medium-Term Review of the Education Strategic Plan 2014-2018 with projections until 2020, which outlines the twenty-first century educational agenda (MoEYS, 2016).

Therefore, the most pressing issue for MoEYS is to embark on an in-depth reform programs that will contribute to significantly increasing the number of youth and adults with strong literacy, numeracy and soft-skills combined with technical and vocational skills, for gainful employment and entrepreneurship. Taking into account the rapidly changing technologies and economic and political landscapes of South-East Asia and the world, especially in Cambodia, the researcher has chosen a topic of 'Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia.

1.2. Research Questions

1. What is the research framework of education management reform and the quality citizenship?

2. What is the current and desirable state of the education management reform for enhancing the quality citizenship in Cambodia?

3. What are the priority needs in education management reform for enhancing the quality citizenship in Cambodia?

4. What are the education management reform strategies for enhancing the quality citizenship in Cambodia?

1.3. Research Objectives

1. To study the conceptual framework of education management reform and the quality citizenship.

2. To study the current and desirable state of education management reform for enhancing the quality citizenship in Cambodia.

3. To find out the priority needs in education management reform for enhancing the quality citizenship in Cambodia.

4. To develop education management reform strategies for enhancing the quality citizenship in Cambodia.

1.4. Operational Definition of Terms

The key terms used in this study are specifically defined and contextualized only as follows:

1. **Education Management** refers to the education management process that focused on Planning, Implementation and Evaluation in 4 managerial elements: 1. Administrative and general management 2. Academic management, 3. Educational finance management, and 4. Personnel management (Hoy & Miskel, 2008; MoEYS, 2017; Newby, Stepich, Lehman, & Russell, 2000; UNESCO, 1989).

2. **Education Management Reform** refers to a thorough changing in the structure of the educational system of a country, or resulting in a fundamental change in national educational policies, or causing in turn major changes in some education management sectors that focused on administrative and general management reform, academic management reform, educational finance management reform, and personnel management reform.

3. **Quality Citizenship** refer to a multi-faceted nation that consists of: (1) Quality of good national citizen; and (2) Quality of good global citizen (OXFAM, 2015; UNESCO, 2014, 2015a).

4. **Education Management Reform Strategy** for Quality Citizenship refers to a successful reform strategy in education management that requires dealing with complex entities and solving multiple desirable education elements simultaneously in order to promote quality citizenship. The strategy consists of (1) the vision, mission and values; (2) the concrete goals and outcomes that would represent the achievement of the vision; (3) strategic analysis of key issues, including internal

and external forces that might affect the strategy; and (4) the new strategy needs to be formulated and the case for change needs to be created (Kaplan & Norton, 2008; Siribanpitak, 2009).

1.5. Conceptual Framework

In this study, the researcher employed the following steps to develop the conceptual framework for the Education Management Reform Strategies for Enhancing the Quality Citizenship in Cambodia:

1. Literature review;

2. Interview with five experts in education;

3. Analysis/ synthesis of the draft conceptual framework;

4. Experts examine the draft conceptual framework.

5. The researcher analyzed and synthetized the concepts and theories related to education management, education management reform (EMR) and quality citizenship. Then the researcher interviewed five experts in education. After analyzing and synthetizing the interviews, the researcher prepared the draft conceptual framework of Education Management Reform Strategies for Enhancing the Quality Citizenship in Cambodia. It was then examined, modified and approved by the experts as follows:

1.5.1 **Systemic Education Management Reform** (Anson, 1994; Bruns et al., 2011; Elmore, 2004; Fullan, 2007; P. Glewwe, 2014; Hoy & Miskel, 2008; MoEYS, 2017; UNESCO, 1989):

1. Administrative and General Management Reform: (1) Education policy and Education Strategic Plan (ESP); (2) School-Based Management (SBM); (3) Community involvement in school management.

2. Academic Management Reform: (1) Education Curriculum and textbook management; (2) Learning and Teaching process management; (3) Student assessment and school inspection management.

3. Educational Finance Management Reform: (1) Education finance allocation by linking education budget to education policies; (2) Financial autonomy and accountability of schools; and (3) Education budget audit.

4. Human Resources Management Reform: (1) Preservice teacher education (PRESET); (2) In-service teacher training (INSET); and (3) Teacher performance assessment.

1.5.2. **Quality Citizenship**: The concept of quality citizenship represents a dialectic relationships between good domestic citizenship and good global citizenship. In this research, the concept of quality citizenship consists of the following (Ban, 2012; OXFAM, 2015; Tawil, 2013; Torney-Purta et al., 2001; UNESCO, 2014, 2015a, 2015b, 2016):

i. **Quality of good national citizen**, which includes: (1) Economic component of good national citizen: (a) knowledge; (b) hard and soft skills, including inter-personal skills, such as communication, cooperation, problem-solving and conflict resolution; (c) core life skills and emotional awareness; and (2) Socio-political component of good domestic citizen: (a) conventional citizenship: obey the law, national identity, patriotism and loyalty to the country, social cohesion and respect for diversity; (b) actions taken individually or collectively to promote quality citizenship; (c) social-movement-related citizenship activities, such as commitment to social justice, equity, human rights, environment protection, sustainable development and community development; (d) conventional political activities: membership in political party, engage in political discussions and vote in every election.

ii. **Quality of good global citizen**: (1) Economic component of good global citizenship: (a) awareness of the wider world and has a sense of their own role as a world citizen; (2) respect and value diversity; and (2) Social component of good global citizenship: (a) willingness to act to make the world a more equitable and sustainable place; and (b) responsibility for their actions.

It is expected that, with the systemic EMR, more quality inputs (such as classrooms, textbooks, computers, instructional materials, teachers, and students) will be used for the teaching and learning process, in which these inputs are transformed in the internal processes and structures to produce better quality outputs (Hoy and Miskel, 2008). These outputs are usually products and services, but they may also include employee satisfaction and other by-products of the transformation process. The transformation process includes the following:

a) Administrative and general management reform would lead to better Quality Learning Environment, which includes: (1) Safe, protective and gender-sensitive environment; (2) Adequate resources and facilities.

b) Academic management reform would result in better Quality Content: (1) Basic skills acquisition of related contents: literacy, numeracy and life skills-related content; and (2) Social knowledge related content: gender, health and nutrition and citizenship-related commitment.

c) Education financial management reform would lead to: (i) Quality Process, such as: (1) Professional teacher training process; (2) Child-centered teaching approaches; (3) Well-managed classrooms and parity reduction; and (ii) Quality Learner: (1) Healthy and well-nourished; (2) Ready to participate and learn; (3) Family and community's support in learning.

d) Human resources management reform would result in Quality Outcome, which covers: (1) Literacy and numeracy outcome; (2) Skills and attitude outcomes; (3) Community participating, learner confident and life-long learning outcome; and (4) Health and life skill outcome.

As stated earlier, during the process of educational transformation, the EMR is expected to produce the outcomes, which can be considered as five components of quality education. Education quality constitutes, therefore, the intermediate output of the EMR. It is expected that, the students, with better knowledge, hard and soft skills and core life skills, will be more engaged in actions to become: (i) good national citizen;

and (ii) good global citizen. This linkage of the EMR to quality citizenship constitutes the ultimate objectives of this research study.

However, this conceptual framework is too broad. Therefore, the researcher will interview five experts in education management and quality citizenship to narrow down the focus of the research.

The conceptual framework was be then validated by a focus group discussion and will be brought to the thesis advisors for final approval.

Therefore, researcher can combine these related concepts and theories to be the conceptual framework for this research as follows:

Systemic Education Management Reform (Anson, 1994; Bruns et al., 2011; Elmore, 2004; Fullan, 2007; P. Glewwe, 2014; Hoy & Miskel, 2008; MoEYS, 2017; UNESCO, 1989):

    1. Administrative and general management reform:
       1.1 Education policy and Strategic Plan;
       1.2 School-Based Management;
       1.3 Community involvement.
    2. Academic management reform
       2.1 Education curriculum and textbooks;
       2.2 Learning and teaching process;
       2.3 Student assessment.
    3. Education finance management reform
       3.1 Education financial allocation linking budget to education policies;
       3.2 Increased financial autonomy and accountability of schools;
       3.3 Education budget audit.
    4. Human Resources Management Reform
       4.1 Preservice teacher education;
       4.2 Inservice teacher training;
       4.3 Teacher performance assessment.

Quality Citizen (Ban, 2012; OXFAM, 2015; Tawil, 2013; Torney-Purta, Lehmann, Oswald, & Schulz, 2001; UNESCO, 2014, 2015a, 2015b):

    1. Quality of good national citizen:
    1.1 Economic component:
    (1) Knowledge and hard skills;
    (2) Soft and life skills;
    1.2 Socio-political component:
    (1) Respect the law and order;
    (2) Community and sustainable development;
    (3) Participation in political activities.

    2. Quality of good global citizen:
    2.1 Economic component:
    (1) Recognition of global issues;
    (2) Respect for diversity and human values;
    2.2 Socio-political component:
    (1) Make the world a better place
    (2) Responsibility for their actions

Development of Strategy:
1. Analyzing the current and desirable state of education management reform in Cambodia for enhancing quality citizen
2. Analyzing the internal and external environment of education management reform in Cambodia by conducting PIN $_{modified}$ and SWOT analysis
3. Developing education management reform strategy using TOWS Matrix Analysis,
4. Adjusting strategy using validation check of experts and stakeholders

An Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia

Figure 1 The conceptual framework of the research

1.6 Scope of Research Study

1.6.1 Scope and Limitation of Content

The study aims to measure the effectiveness of Education Management Reform (EMR) 2013 of the Ministry of Education, Youth and Sport (MoEYS), Kingdom of Cambodia. Thus, this research study will be conducted in education institutions under supervision of the MoEYS. This EMR has been considered by key stakeholders as ambitious, covering wide-ranging issues from teacher reform to curriculum review. As a result, many aspects of these reform programs have not been prioritized. Thus, this research study was conducted in the form of a series of survey to investigate the planning, implementation and evaluation of the EMR in four components of the education management: administrative, academic, financial and human resource management reform.

1.6.2 Scope and Limitation of Population and Sample

1) Informants:

The population used in this research is the education experts, directors of MoEYS departments, school administrators, teachers, members of School Support Committee (SSC), students under the Ministry of Education, Youth and Sport (MoEYS) of the Kingdom of Cambodia and other stakeholders.

2) Sample:

The sample of this study is about 710 respondents, consisting of 10 education policymakers, 30 Directors of MoEYS departments, 80 school administrators, 150 teachers, 80 School Support Committee members, 300 students and 60 other stakeholders (members of the Development Parnters and NGOs).

1.6.3 Scope and Limitation of Time Frame

The research study will be conducted over a period of one year from June 2017 to May 2018.

1.7 The Expected Result

1.7.1 Significance of the study for the field of educational management

The findings of this study will make a number of contributions to the field of education management:

1) ***Academically***, this research documents theoretical framework, concepts, paradigms and approaches dealing with systemic EMR and quality citizenship. It is expected that, the systemic EMR would ensure more quality inputs that will be used for the teaching and learning process to produce better quality education, which can be regarded as the outputs. Therefore, education quality can be considered as the intermediate output of the EMR. It is expected that, the students, with better knowledge, hard and soft skills and core life skills, will be more engaged in actions to become: (i) good national citizen; and (ii) good global citizen. This linkage of the EMR to quality citizenship constitutes the ultimate objectives of this research study. Therefore, the result of this research would be an academic source for other researchers, scholars and education ministries to take further studies on education management reforms. It provides especially a conceptual framework and strategies for a systemic education reform for enhancing the quality citizenship.

2) The study on education management reform for enhancing the quality citizenship will contribute to the Educational Science by addressing the following questions:

- How to respond to the needs of the rapidly changing economy and to sustain high economic growth?
- How can we incorporate technology in education in an optimal manner?
- How to address skill mismatch?
- How to develop among the students cognitive and non-cognitive skills that are useful for the job market?
- How to ensure education quality, which will enhance good citizenship in Cambodia?
- How to promote quality citizenship among young people?
- Ongoing developments in the world of educational theory and practice are considered in the concept paper, including institutional reform, teacher development, school leadership etc.

1.7.2 Significance of the study for the educational leader and professional practitioners

1.7.2.1 Policy Level: This research will provide possible solutions to education reform in Cambodia in order to achieve the SDG4 and the objectives of Education 2030 as set by the global agenda. The education reform strategies will be developed to guide the Cambodian Ministry of Education, Youth and Sport in implementing the education reform program. The obtained education reform strategies provide direction for the Cambodian education institutions to move effectively improve the quality education and enhance the quality citizenship in Cambodia.

The research results are expected to help Cambodia address the skill mismatch, to provide young people with both cognitive and non-cognitive skills for industrial development in Cambodia, to prepare better Cambodian young people for future job markets, and especially for them to become good national and global citizen.

1.7.2.2 Practical Level

1) It can be used as a model for education institutions to improve education quality and promote civic and citizenship education at the school level by implementing school-based management.

2) It is useful informative resources for researchers as it adds up to the existing literature on education management reforms and education for global citizenship.

3) It can be used as a useful guideline for teacher education provider (TEPS) to implement practical teacher policies for both pre-service and in-service training.

CHAPTER 2
LITERATURE REVIEW

This research applies the theoretical framework that has been developed to provide background for this study, the following topics are respectively addressed:

2.1 The Concepts and Theories of Education Management Reform

2.2 The Concepts of Education Management Reform Strategies

2.3 The Link between Education Management Reform and Quality Citizenship

2.4 Related Research.

2.1 The Concepts and Theories of Education Management Reform

In this section, the researcher reviewed the concepts and theories of education management, education management reforms and policies and plan for education management reform in Cambodia.

2.1.1 Conceptual Pluralism

There are different theories of educational management, because it is based on conceptual pluralism (Bolman and Deal, 1984 cited in Bush & Bell, 2009). Educational management was derived from the principles of management applied to industry and commerce (Bush & Bell, 2009).

2.1.2 Management

Drucker (2008) defines management as a system of inter-related elements or as an organic whole. Management is polycentric, as it has many centers and inter-related elements. It consists of two main parts, which can also be adapted and applied to educational management:

(1) Internal Part: Environment, managerial skills, management effectiveness, personal skills and tasks; and

(2) External Part: Innovation, spirit of performance, organizational results, serving common good, social impacts and environment.

The fundamental task of management is to make people capable of working together to achieve common goals, common values, by providing the right incentives, training and capacity they need to perform and respond to change (Drucker, 2008). It means that management is to anticipate the future, which is incorporated as common goals, to attempt to mold the future, and to balance between short-term, medium-term and long-term goals (Drucker, 1993). Thus, educational management requires strategic planning.

2.1.3 Educational Management

Guruge and Berstecher (1977), attempted to apply the general principles of management to educational planning and administration. Educational management puts a major emphasis on the inter-action of people – people inside and outside the educational institutions and people above and below the operational position. Educational management can be defined as an art of guiding the activities of all educational stakeholders toward the achievement of a common goal (Guruge & Berstecher, 1977). Educational management process can be broken down into five different functions, widely known as "Fayol elements": (i) Planning (programming and project formulation); (ii) Organization (financial and human resources mobilization); (iii) Commanding (implementation, motivation, supervision); (iv) Coordination (implementation at different levels and between different stakeholders); and (v) Control (Budgeting, reporting and evaluation). Within each stage, the management process consists of four basic elements: decision-making, problem-solving, human relations and communication (Guruge & Berstecher, 1977).

2.1.4 Education Management at School Level

Hoy and Miskel (2008) provided a synthesis of education management at school level. Schools are open social systems with five important elements or subsystems: the structural, the individual, the cultural, the political, and the pedagogical. Organizational behavior is a function of the interaction of these elements in the context of teaching and learning. The teaching-learning process is the technical core of the school social system. The environment is also a critical aspect of organizational life. It not only provides resources for the system but also provides additional constraints and opportunities. Effectiveness indicators can be derived for each phase of the open-systems cycle-inputs

(human and financial resources), transformations (internal processes and structures), and outputs (performance outcomes).

School as an open system is a set of interaction elements that acquires inputs from the outside, transforms them, and produces outputs for the environment. People, raw materials, information, and money are the typical inputs for schools. In the transformational process, these inputs are changed into something of value called outputs, which are then exported back into the environment. Outputs are usually products and services, but they may also include employee satisfaction and other by-products of the transformation process. Classrooms, books, computers, instructional materials, teachers, and students are critical inputs for schools.

Transformational criteria are the quantity, quality, and consistency of the internal processes and structures that transform the inputs to outcomes. Examples of transformation criteria are the structure and content of the curriculum, health of the interpersonal climate, motivation levels of students and teachers, teachers and administrator leadership, quality and quantity of instruction, and quality-control procedures such as the number of tests given, evaluation of teaching, use of instructional technologies, and personnel evaluations. To maximize school effectiveness, the internal elements of teaching and learning, bureaucratic expectations, group culture, political expectations, and individual needs must work harmoniously to produce the desired performance goals.

Performance outcomes constitute the quantity of the school's services and products for students, educators and other constituents. From a social-system perspective, important outputs include: (i) for students, academic achievement, creativity, self-confidence, aspirations, expectations, and attendance, graduation and dropout rates; (ii) for teachers, job satisfaction, absenteeism, and turnover; (iii) for administrators, job satisfaction, budgets, and commitment to school.

2.1.5 Educational Management Process

Newby et al. (2000) proposed a PIE model, that can be used for educational management. The model contains general rules that can be adapted to fit each situation.

The PIE model is useful as it follows a sequence of activities for each of the three phases.

1. Planning,

2. Implementation

3. Evaluation

2.1.6 Education Management Models

Bush and Bell (2009) proposed six theories related to management models. However, there is no single framework, as all of them represent only partial models of education management.

(i) The formal models were proposed during the early stages of theory of educational management. It consists of formal structure, rational decision-making and top-down leadership.

(ii) The collegial models enable teacher participation in decision-making. Many principals aspire to collegiality. The collegial models provide the setting for top-down decision-making.

(iii) The cultural model is based on values and beliefs, and the emphasis on the significance of individual meanings. But this model can be manipulated by leaders, who seek to impose their own values on schools and colleges.

(iv) The ambiguity model put emphasis on turbulence and anarchy. This approach provides few guidelines for managerial action.

2.1.7 Education Management Dimensions

UNESCO (1989) identified three major classifications of educational management theories in the professional literature and suggested four criterion-based models: efficiency-based administration, effectiveness-based administration, responsiveness-based administration, and relevance-based administration.

(i) Efficiency-based administration is derived from the classical school of administration and is induced from the practice of school executives who behave according to the views of general, scientific and bureaucratic management, based on

the criterion of economic efficiency. The objective of educational administration is to secure the means suitable for attaining production goals and a high degree of productivity.

(ii) Effectiveness-based administration is related to the psychosocial school of administration and is derived from the evaluation of the practical experience of school executives who adopt the principles of the behavioral approach to administration.

(iii) Responsiveness-based administration is proposed based on management theories and is analytically induced from different practical experiences in public and educational administration. The protagonists of these contemporary movements consider the organization as an open and adaptive system.

(iv) Relevance-based administration is derived from recent and current interactionist formulations founded upon phenomenology, existentialism, the dialectical method, critical theory and the human action approach.

UNESCO (1989) synthesized the four models of educational administration into a multidimensional paradigm, which is composed of four interacting dimensions: the economic, pedagogical, political, and cultural.
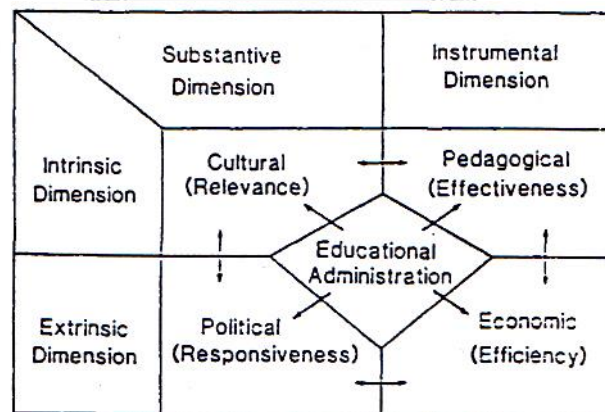
Figure 2 A Multidimensional Paradigm of Educational Management (UNESCO, 1989)

1. The political or administrative and general dimension of educational management: involves the strategies of concrete action of the participants in the educational system and its community. To study and understand the political dimension of educational administration, fundamental principles can be sought from political science, administrative law and public administration.

2. The pedagogical or academic dimension of educational management: refers to the educational principles, teaching and learning, and techniques that are intrinsically committed to the effective attainment of the objectives of the educational system.

3. The economic dimension of educational management: involves financial and material resources, structures, bureaucratic norms, and mechanisms of coordination and communication. In this dimension, educational administration is concerned with the distribution and control of resources, the organization of the institution, the definition of roles and responsibilities and the distribution of work.

4. The cultural or human resources dimension of educational management: covers the values and characteristics of the participants in the educational system and society in general. The role of the educational administrator is one of coordinating the action and interaction of the persons and groups who participate directly or indirectly in the educational process of the community.

Overall, there are different theories of education management, as it derives from the multiple concepts applied to business management. Education management theories posit that education management constitute a multidimensional paradigm consisting of administrative, academic, financial and human resources dimensions.

2.1.8. Education Reform

Education reform is a process of change that cover different aspects of education. The recent popularity of the concept of educational reforms as a paradigm shift reflects the trends of moving away from the education reform as the ideological change towards new requirements of the reform to meet the needs of the changing structure of the global economy. Many countries around the world have embarked on educational change in order to provide appropriate response to their varying needs at different phases of economic development (Fagerlind & Saha, 1989). The process of education reform has taken place in the context of different culture and governance regimes, as well as competing interests of different groups and social strata in the society (Verdugo, 2014).

2.1.8.1 The Role of Education in National Development:

Education must respond to the needs of the changing economy (Fägerlind and Saha, 1989). The national education systems consist of three key elements: policy drivers, economic rationales and education mechanisms (Adamson, Astrand, & Darling-Hammond, 2016).

Adamson et al. (2016) pointed out to two policy options that are made available to policymakers: public investment policy or neoliberal policy. Public investment focuses on public ownership, public responsibility, equity and democratic decision-making, while neoliberal policy drivers focus on privatization, deregulation, decentralization and liberalization.

As education should respond to economic goals of a country, the economic rationales of the education systems are driven by the goals, the providers and the different approaches of the education systems. The economic rationales of the public investment proponents focus on universal access, preparing the citizens for the economy and democracy and equity, while neoliberal economic rationales are aimed towards efficiency, competition, quality and quality.

Education mechanisms of the education systems consist of three main components: education delivery mechanism, curriculum and student achievement. The public investment approach to education mechanisms highlight the needs to prepare teachers well, to provide equitable funding to schools, to build high-quality infrastructure and to provide whole-child curriculum and pedagogy. National education mechanisms focus on vouchers, Charter schools, school markets, market-based teaching and test-based accountability (Adamson et al., 2016).

Attempts to reform educational systems take place in both developing and advanced industrial societies. During the 1960s, the theoretical framework for linking education to development was known as human capital theory (Becker, 1960 cited in Fagerlind & Saha, 1989; Schultz, 1961). For any country, two sine qua non conditions are required for national development: (i) improvement and efficiency of technology; and (ii) the employment of technology. Formal education provides the skills and motivation for productive behavior (Fagerlind & Saha, 1989). The human capital policy reform should consists of the following: (i) increases workers' productivity by

providing education; (ii) strengthening the quality of years of schooling; and (iii) increase more social returns by the positive effects of education.

During the 1970s, another theoretical framework, known as the theory of economic growth, emerged as the mainstream ideology. Rostow, 1971 cited in Fagerlind and Saha (1989) considers education as an important factor in the access and exploitation of available science and technology, as well as the acquisition of value by the population. There are at least three mechanisms through which education may affect economic growth (E. A. Hanushek & Woessmann, 2008). First, education increases the human capital embedded in the labor force, which increases labor productivity for a higher equilibrium level of output as in neoclassical growth theories (Mankiw, Romer, & Weil, 1992). Second, education may increase innovative capacity of the economy, and the new knowledge on new technologies, products and processes promotes growth (as in theories of endogenous growth by (Lucas, 1988) and (Romer, 1990). Third, education may facilitate the transmission of knowledge needed to understand and process new information and to implement successfully new technologies devised by others, which again promotes economic growth (Benhabib & Spiegel, 1994).

During the 1960s and 1970s, the dominant ideology was a welfare state and education reform agenda in Europe shifted toward creating the welfare state. The reform strategy focused on building up high quality and equality in education by constructing a publicly funded comprehensive school system without selecting, tracking or streaming students during their basic education until the age of 16. Centralization was considered as a means of implementing comprehensive school reform to promote equitable access (Antikainen & Pitkänen, 2014). The centralized education system enabled the State to control all aspects of education, from contents and resources to organization. This concept of equity does not mean that schools should receive equal resources. It rather means that all students should receive equal educational opportunities. However, equal opportunities did not guarantee equal education standards and disparities in educational quality emerged, prompting the political parties to introduce neo-liberal education reform in the 1980s (Francia, 2014).

With rising inequality and the onset of globalization, education reform during the 1980s aimed to implement liberal policies according market-based views on

education. The neo-liberal educational reforms were aimed to respond to market demands. The neo-liberal educational reforms focus on quality, efficiency, individualization and standardized assessment, the right of choice, institutional diversity, decentralization and privatization. Globalization is having a significant impact on education in many countries, as it has reduced the services provided by welfare states (Hill, 2003). Although national interest in education remains, the State plays a less important role in providing educational services.

Neo-liberal policies consist of decentralization and minimalist State. Within a context of unequal resource availability, decentralization undermined educational cohesion, as there are discrepancies between regions as to subsidizing the cost of text books, granting scholarships and school financing. The Neo-Liberals consider education only in a narrow sense, as a mechanism for imparting 'skills' and 'employability', and that schools act as factories equipping the 'knowledge economy' with human capital (Beltran, 2014). The neoliberal policies led to inequality, especially in different level of education quality.

Education has also been considered as an investment. Research by Psacharopoulos (1985) focused on the returns to education and confirmed the human capital approach: (i) the social and private returns are higher for primary education; (ii) private returns exceed social returns, especially at the university level; (iii) all rates of return to investment in education are above the 10 percent criterion of the opportunity cost of capital; and (iv) the rates of return are higher in less-developed countries than in developed countries at comparable levels. A large body of education literature has accumulated the evidence that education increases workers' productivity (P. W. Glewwe, Hanushek, Humpage, & Ravina, 2011; E. A. Hanushek & Zhang, 2009; Mincer, 1974; Psacharopoulos & Patrinos, 2004). We can synthesize the theories of human capital policy reform of (Schultz, 1961), (Becker, 1960), (Psacharopoulos, 1985), (Mincer, 1974), (Psacharopoulos & Patrinos, 2004),(P. W. Glewwe et al., 2011), and (E. A. Hanushek & Zhang, 2009) that education improves the individual choices and an educated population provide the types of labor force necessary for industrial development and economic growth.

To address the discrepancies in education quality and inequality, a standard-based education movement has emerged during the 1990s in the US. During the year 2000s, the United States embarked on standard-based education reform. Nelson, Palonsky, and McCarthy (2012) provide a comprehensive analysis of standard-based education reform movement in the United States. The 1983 publication of A Nation at Risk was the catalyst for the No Child Left Behind (NCLB) legislation. It considers that the US once unchallenged pre-eminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world (National Commission on Excellence in Education, 1983). Problems found in schools include low achievement scores on standardized tests and unfavorable international comparisons.

The report's recommendations for public education were as follows: (1) improve education for all students and (2) develop higher standards (Nelson et al., 2012). The NCLB Act (2001) is designed to create a stronger, more accountable education system. States are required to develop their own standards for what students should know at every grade level in math, English/ language, arts, and science. All states must administer academic assessments in reading and mathematics to students in grades 3 to 5, 6 to 9, and 10 to 12. The legislation requires each school, school district, and state to make adequate yearly progress toward meeting state standards (NCLB, 2001). The standards movement is designed to bring all students up to higher levels of academic performance (Tucker & Codding, 1998). Support for the standards movement is based on the assumption that the subject matter that students learn in school is important. The store of knowledge possessed by individuals operates to determine success or failure in school and, to a large measure, success or failure in life (Hirsch Jr, 1996). States must establish content standards appropriate for success, and students must demonstrate command of subject matter and academic skills at the level described in the standards.

The standard approach to learning denies any other learning methods. When schools focus on content-free goals, such as self-esteem exercises, discovery techniques, and cooperative learning strategies, all students suffer because they learn less subject-matter content (S. J. Bennett, 1999; Hirsch Jr, 1996). Any approach to

learning that emphasizes a process approach limits the futures of children by denying them access to intellectual capital, i.e. the store of knowledge needed to do well in school and life.

2.1.8.2. Education Management Reform Theories

Educational systems are contested terrains (Verdugo, 2014). Industrial development requires that the workforce to be well trained to meet the needs of the economy. To this end, educational policy and reform aim to provide appropriate response to these varying needs at different phases of economic development. However, history, culture and governance regime set the context for education policy and reform (Verdugo, 2014).Therefore, educational reform is not a homogenous process. Moreover, competing groups have tried to influence the reform process.

There are different theories of education reforms, which have evolved over the years. Paulston (1976) divided them into three categories: (i) education reform as part of social change and from a conflict perspective; (ii) education reform as ideological change; and (iii) education reform as paradigm shift. Paulston (1976) analyzed the theories of education reform as part of social and ideological change and from a conflict and equilibrium perspective. He classified them into six theories: (i) the equilibrium theories consisting of evolutionary and neo-evolutionary, structural-functionary and systems theories; and (ii) the conflict theories consisting of Marxian and neo-Marxian, cultural revitalization and anarchistic-utopian theories. He also postulates that education reform is a paradigm shift. We will use the theory of education reform as a paradigm shift to guide our research.

Theories of education reforms have been largely based on political ideology or popular support rather than on reliable research evidence. In general, education reforms aims to improve educational programs and practices which will, in turn, assist to meet overall objectives of education in more effective ways (Fullan, 2007). Educational reforms involve changes in organizational structures, communications, resource allocation, practices, and believes and attitudes. Paulston (1976) argues that major educational reforms always involve a political process with implications for the redistribution of power. Educational change is viewed by some adherents of conflict theory (Applebaum, 1970 cited in Fagerlind & Saha, 1989; Horton, 1966) as a part of

the larger field of social change. Freire (1971) elaborates a highly ideological strategy for education that supposedly liberates oppressed people through dialogue, language development, and struggle to emerge from self-perceived cultural inferiority.

Moreover, Paulston (1976) compares educational reforms to Kuhn's paradigm shift or the shift in conceptual world-view. As in paradigm shift, education reforms bring new conceptual frameworks, introduce new educational aims and view on how people learn, require to adopt new teaching and assessment approaches and materials etc. (Irez & Han, 2011).

A body of research pointed to that educational change is based on political ideology rather than research evidence. This explains why there are many unsuccessful cases of education reforms to date (Levin, 2010). Verdugo (2014) considers that education reform policies are set within the context of political regimes, within which nations are organized and managed.

Fagerlind and Saha (1989) stated that education resources allocation reform resulting in 'a fundamental alteration in national educational policies, causing in turn major changes in some or all of the following: (i) increase the national allocation of resources to the field of education; (ii) increase the allocation of resources within the existing educational system to other levels of the system; (iii) the percentage of students completing different levels of the educational system; (iv) the percentage of students from different social strata or the percentage of female students that complete different levels of the educational system; and (v) the aims of the curricula and their content.

Education reform in developing countries covers a wide range of issues, not just educational by nature. During the last two decades, educational reforms have shifted from ideology toward a paradigm shift. While reviewing factors that determine how many years children are enrolled in school, and how much they learn while they are in school, Glewwe (2014) classified them into two broad groups: (1) school and teacher characteristics; and (2) child and family characteristics.

Wideen (1994) identified the context of educational change, which is based on five areas – curriculum reform, school improvement, school effectiveness, teacher research, and teacher development. Curriculum reform involves better use of

curriculum materials. The school improvement reform considers school as the unit for change. Therefore, the reform is aimed to solve the problems and the internal conditions that the school is facing. The school effectiveness approach focuses on student achievement. The teacher research approach requires the teacher to conduct research to improve teaching. The teacher development approach focuses on the teacher as the innovator and change agent. In all these approaches, the teacher remains central to the process of school reform.

Fullan (2007) considers that education management reform constitutes a process of change, consisting of three consecutive phases: initiation, implementation and institutionalization. The relationships between the three phases are interactive. Fullan (2007) attributed three factors that are conducive to initiate educational reform: relevance, readiness and resources. At the institutionalization phase, all stakeholders have already embraced change and the reforms are embedded in the day-to-day activities. Research shows that there are influencing factors that form a set of variables that interact dynamically with each other to determine the success or failure of the education reform.

When the education system fails to match to job market, skill mismatch emerges. The skill mismatch or gaps between level of educational attainment, levels of aspiration, and job opportunities can have considerable implications on economic growth. Skill mismatch is multidimensional (Gardner, 1983; Guvenen, Kuruscu, Tanaka, & Wiczer, 2015). The mismatch is based on the discrepancy between the portfolio of skills required by an occupation (for performing the tasks that produce output) and the abilities possessed by a worker for learning those skills.

Skill mismatch emerges as a result of rapidly changing social and economic landscapes, because education institutions are too slow to catch up with the changes. Skill mismatch refers to a failure of skills supply to meet skills demand (World; Bank, 2010; Gambin et al., 2016; Gardner, 1983; Guvenen et al., 2015). So addressing skill mismatch should focus on: (i) Matching schools to jobs is difficult, because of the disparity in educational philosophies, divergent view between parents and the national planners; (ii) Skill mismatch can act as a drag on economic growth; and (iii) Education reform is required to improve education quality and address skill mismatch.

There has been impressive progress in expanding total exposure to schooling (enrolment, retention, grades completed) in nearly every developing country. But in many developing countries learning levels remain low and no evidence of the same type of rapid uniform progress. In some countries it got worse. However, in some countries, such as Vietnam, learning outcomes are at or above OECD levels (Pritchett, 2015). The Education E. Commission (2016) considers that by 2030, more than half a generation of young people will be denied a future because they will not have the skills needed for the changing job market. The Commission considers that 'for any improvement in the design and delivery of education to succeed, they must be underpinned by a system that is built to deliver results'. Therefore, systemic educational management reform is crucial for developing countries to ensure high and sustained economic growth. Strong result-driven systems are those which ensure coherence across goals, policies, and spending, a clear route from policy to implementation and effective governance and accountability.

Therefore, in order to take advantage of the opportunities created by the unfolding fourth industrial revolution, developing countries will be required to embark on education reforms in order to improve education quality and address skill mismatch. Poor skilled workforce makes it more difficult for employers to adapt to new, more productive technologies (World; Bank, 2010). Moreover, scarcity of a skilled workforce rather the availability of capital is more likely to constrain innovation, competitiveness and growth (Schwab, 2016).

Therefore, developed and developing countries alike should embark on education management reform in order to make education more relevant and responsive to each phase of economic development.

2.1.8.3. Systemic Education Management Reform

Educational management reforms cover wide-ranging issues, from curriculum review to teacher professional development and innovations in classroom activities. Often education reforms have sought system-wide change in educational goals, priorities, and structures. Research on systemic educational management reform is well advanced and may be found in (Conley, 1993); (Anson, 1994); (Fuhrman, Elmore, & Massell, 1993); (Fullan, 2007); (Glewwe, 2014); (Pritchett, 2015); Education

Commission, 2016, among others. The results of the research revealed that successful educational management reforms require two conditions: (i) systemic reform, that ensures (ii) coordination between top-down and bottom-up reforms.

1). Systemic Education Reform

Education is a complex system embedded in a political, cultural and economic context. The political, cultural and economic dimensions of education are interdependent and influencing each other. Therefore, education is systemic in nature. Some previous studies reveal that the key to successful education reform is to embark on systemic reform, which deals with complex entities and resolve multiple elements and problems simultaneously (Anson, 1994; Fullan, 2007). Recent research has also shown that increasing investment in educational inputs does not lead to improvements, so education performance depends on systems (Pritchett, 2015). If the education systems are weak, adding more resources will not lead to quality improvement. Pritchett (2015) provides the following explanation:

- Indonesia doubled teacher salaries and a rigorous evaluation show exactly zero impact on learning.

- India increased federal spending by tenfold and overall per pupil expenditure tripled and yet a decade of ASER assessments (and other sources) show learning getting worse.

- A rigorous evaluation of reducing class sizes in Kenya by hiring contract teacher shows learning improvements when implemented by an NGO – but the exact same program had zero impact when implemented by the MoE.

- Additional textbooks had zero impact unless they were accompanied by changes in teacher incentives.

- The Commission found that 'for any improvement in the design and delivery of education to succeed, they must be underpinned by a system that is built to deliver results'.

So what is a systemic education reform? Anson (1994) proposed a systemic school management reform framework that include many aspects of education services, such as implementation of assessments, teachers' professional development, School-Based Management (SBM), the use of technology etc. Fuhrman (1994) regards the concept of systemic reform as covering curriculum framework, student assessment, instructional materials, teacher licensing and staff development. Tiongson (2005) considers that education reforms concern policy changes to expenditure structure, financing schemes and management. Ouellette (2000) defines systemic reforms to include: content standards, performance standards, student assessments, accountability system, teacher preparation, professional teacher development, governance structure and public support. Fullan (2007) is of the view that successful implementation of systemic reform requires clarity of goals of the reform, institutional capacity, financial and technical support to teachers, principals and other stakeholders, as well as a sound monitoring and evaluation mechanism.

Conley (1993), cited in (Thompson, 1994), proposes a framework of twelve dimensions of a systemic educational reform that are grouped into three components: (i) The central subset consists of: learner outcomes, curriculum, instruction, and assessment; (ii) The enabling component includes: learning environment, technology, school-community relations, and time; (iii) The supporting variable is made up by governance, teacher leadership, personnel structure, and working relationships.

Systemic reform is a comprehensive change program designed to modify schools in an integrated, coordinated, and coherent fashion to achieve clearly stated educational outcomes (Fuhrman, Elmore & Massell, 1993 cited in Hoy & Miskel, 2008). The basic priority of systemic reform is to define ambitious curriculum content and achievement standards in core academic subjects and to tightly couple the goals with an assessment program. The alignment of curriculum content and achievement standards with assessment procedures creates an accountability system for monitoring the effciency and effectiveness of K-12 schools.

Ogawa, 1994, 2002, 2003 cited in Hoy and Miskel (2008) considers that a crucial point in systemic reform is whether the current initiatives promote technical efficiency and effectiveness or societal arguments, further governmental

standardization, and professional control. If the goals of systemic reformers are to be achieved, technical environments must become the dominant form for schools and tight linkages must develop for accountability, efficiency, and effectiveness. If the switch to technical environments does not occur, the systemic reform efforts may produce a new, thicker web of rationalized myths and further institutionalize the environments of public K-12 education. Alternatively, further reliance on rationalized myths in the face of intense public calls for reform might force a break in the near monopoly of public education and produce a competitive marked for K-12 education.

Fullan (2007) considers that the success or failure of educational change is the result of a dynamic process involving interacting variables over time and he suggests that successful reforms require coordination between top-down and bottom-up reforms.

2.1.8.4. Coordination between Top-Down and Bottom-Up Education Reforms

Successful systemic educational management reform requires coordination between top-down and bottom-up reforms (Fullan cited in Anson, 1994; Paulston & LeRoy, 1982). Paulston and LeRoy, 1982 cited in Arnove (2005) attempts to provide a conceptual framework for educational reform, consisting of two principal axes: (i) a vertical axe concerns where reform is initiated, whether at the top in international and national bureaucracies or at the bottom in grassroots movements; and (ii) a horizontal axis concerns the goals of educational change to meet the needs of the economy or to promote socio-cultural and political change.

Paulston and LeRoy, 1982 cited in Arnove (2005)'s review of the literature indicated that most educational reform programs fell in the upper left quadrant of figure 2, and were designed to meet the 'human capital' requirements and the needs of dominant groups. National decision-makers are more concerned with the international competitiveness of their economies and the products (graduates) of their educational system (Arnove, 2005).
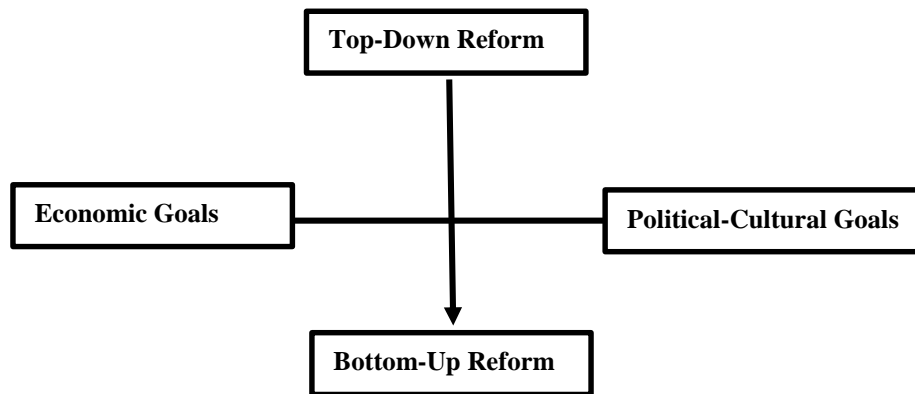
Figure 3 Top-Down and Bottom-Up Reform (Arnove, 2005)

The above conceptual framework is crucial for understanding the theories of educational reforms, as educational-change efforts range broadly from innovations in classroom activities to large-scale reforms seeking system-wide change in educational goals, priorities, and structures.

The process of education management reform is complex and dynamic. There are many factors that influence the educational change. The change will only take place when more factors support the implementation of the education management reform. Fullan (2007) argues that influencing factors often have a different impact in different settings of change. The results of many studies show that when undertaken separately, top-down and bottom-up reforms have failed. Fullan makes the argument for coordinating top-down and bottom-up strategies to create a more comprehensive and coherent model for effective change to take place.

Coordination between top-down and bottom-up reforms requires the following actions:

Firstly, at the national level, the education management reform measures should focus on providing financial support and encouragement, as well as exerting external pressure on and support for schools to implement reform programs. External support such as in-service training programs to improve teaching methods, support for the new teachers and provide mentoring for those in need.

Secondly, at the school level, school organization, such as positive school climate, teachers who are supporting each other by exchanging ideas and experiences through a learning community will facilitate the reform programs.

Fullan (2007) elaborated on conditions required for successful whole system educational reforms. Reform should put educators and students at the center. Reform should take place in the classroom for the improvement in learning to take place. Thus, Fullan (2007) argues that the day-to-day culture of school systems is the critical element that propels and sustains reform. Therefore, intrinsic motivation, instructional improvement, teamwork and allness are the anchors of school reform (Fullan, 2007). According to Fullan, successful educational reform requires an established rapport between top-down/bottom-up strategies. This needs to happen locally between district and schools and provincially between government and school boards. The forces of change are complex but a recommended approach is to explore combined strategies, learn from them, and work towards refining and strengthening abilities to work together.

There are four critical elements of change: people, practices, process and policies. People must engage change in a context of useful practices and enabling policy support that allows all the actors to work together (Suzanne cited in Anson, 1994).

2.1.8.5. Coordination between Supply Side and Demand Side of Schooling

Effective education reforms require dealing with different components of education system, such as (1) school and teacher characteristics; and (2) child and family characteristics. Government policies can have direct (and indirect) impacts on school and teacher characteristics. Policies aimed at changing teacher and school characteristics are those that focus on the supply side of schooling. Glewwe, Hanushek, Humpage, and Ravina (2014) examined a total of 79 studies related to the impacts of a broad type of variables on student learning as measured by test scores. There are over 30 school and teacher characteristics that can have impacts on student test scores. They can be classified into three board types: (1) School infrastructure and pedagogical supplies; (2) teacher (and principal) characteristics; and (3) school organization.

The studies found that school infrastructure and pedagogical materials have positive effects on test scores. Most of the studies (36) provide strong evidence that textbooks and similar materials (workbooks, exercise books) increase student learning. The next most commonly estimated impacts are those of basic furniture (desks, tables,

and chairs) and of computers and electronic games. Adequate amounts of desks, tables, and chairs raise student test scores. However, the results for computers are less clear. This suggests caution when using scare funds for purchasing computers and related products. Electricity also has a positive effect on student learning, as electric lighting helps students read, see the blackboard and the fan keeps keep the classroom cool. Blackboards and visual aids also have similar positive effects.

Teacher (principal) characteristics are crucial in determining students' learning outcomes, as there is strong evidence that with the same funding, some schools are of high quality, while others are of low quality. Glewwe et al. (2014) reviewed research during the last two decades related to the causal impact of basic school and teacher characteristics, such as teacher's level of education, experience, knowledge, gender, in-service training and teaching degree, pedagogical methods used on students' years of schooling and learning.

School organization includes class size (student-teacher ratio), teacher absenteeism, teacher assigning homework, school meals, multi-grade teaching, hours of school day, tutoring, salaried teacher, contract teacher, expenditure/pupil, cost of attending, total school enrolment, group work, teacher giving examples and student attendance.

Improving learning outcomes in developing countries require the implementation of policies aimed at improving child and family characteristics. Although child and family characteristics are often difficult to change through government policies, some policies aimed at improving child health can have important effects. Thus, Glewwe (2014) classified these policies into three broad types: policies that alter student characteristics before they begin primary school, policies that are designed to alter student and parent behaviour, and policies that attempt to change the way that schools are operated in terms of both the management structure and the incentive faced by teachers and school administrators.

Child characteristics in the first years of life can be changed through early childhood education (ECE) and child health and nutrition programs. There is strong evidence that preschools can have strong, positive effects on children's long-run educational and income-earning outcomes. As many children in developing countries

suffer from malnutrition and poor health, children's learning outcomes depend on their health and nutritional status. Alderman and Bleakley (2014) reviewed the impact of poor health on education outcomes in developing countries and identified malnutrition and parasitic infections as key dimensions that have potential not only to increase years of schooling but also to increase learning pear year of school. Public interventions to improve child health lead not only to increased economic efficiency by addressing externalities but also reduce inequality, as they target poor households. Learning is a continuous process of individual student and social development based on the experience and memory students earn during their schooling (Barron et al., 2015).

Policies that change the incentives faced by students and parents are considered as policies focusing on demand side of schooling. Conditional cash-transfer programs have become more common in developing countries (World Bank, 2009).There are four types of incentive programs: (1) Conditional cash-transfer programs, which provide parents monthly payments conditional on their children attending school regularly; (2) payments to students based on academic performance, such as scores on exams; (3) school-voucher programs that provide funds that parents can use to enroll their children in schools; and (4) 'food-for-education' programs that provide children with meals at school or supply their families with foods to be consumed at home. The third type of policies that focus on the supply side of schooling and to make the supply more responsive to the demand for education are those that focus on school-based management.

2.1.8.6. Global Initiatives and the Perspectives of Education Reform

Recent global initiatives on education reflect the needs for many countries to embark on systemic education management reform in order to achieve their goals and targets.

A. Sustainable Development Goals and Education 2030: The global education agenda (Education 2030) is part of the 17 UN Sustainable Development Goals (SDGs), that make up the Agenda 2030 for sustainable development. The objective of SDG 4 is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Education is an important part of other goals

related to public financing of basic services and policy/legal frameworks that guarantee educational opportunities and integration of different objectives (e.g global citizenship, crisis response, environmental knowledge) into national education policies and curricula.

The SDG 4 covers learning from early childhood through adulthood, while stressing the key terms of education quality, learning, inclusion and equity. The SDG 4 stresses the universality of the goals and targets for countries at every level of development. The Education 2030 agenda presents national and international education stakeholders with two critical measurement challenge: learning outcomes and educational equality (UNESCO, 2015c). The SDG 4 - Education 2030 framework consists of the following:

1. The commitments (1) to universal youth literacy, at least one-year of pre-primary education, 12 years of public and free primary and secondary education (of which at least nine years are compulsory), and (2) to ensure equal opportunity in access to post-basic education and training may require adjustment/strengthening of national legislation;

2. The SDG targets look at learning throughout the life-cycle, from early childhood to adulthood. They also go beyond traditional areas of measurement, such as reading and mathematics to reflect a comprehensive and integrated view of the skills needed in relation to society and the environment;

3. Equity is emphasized as there are means of focusing on quality without addressing the many aspects related to those on the margins and those who have been left behind. Therefore, it is necessary to promote policies that will enhance educational quality and increase the learning consequences among those hardest to reach;

4. Expanded access to all levels of education in a holistic and lifelong learning approach based on the principles of education as a basic human right and as a public good;

5. Renewed focus on inclusion and gender equity;

6. Renewed focus on effective learning by focusing on curriculum and teacher training: teaching and learning contents, pedagogy, materials and classroom teaching

practice; assessment frameworks; as well as teacher training and professional development. A holistic and coherent curricular approach will require alignment between curriculum content, assessment, teacher training, as well as school leadership and management.

7. New focus on relevance of learning both for the world of work and civic life: (i) Assessment of learning outcomes: effective and relevant learning requires fairer and more balanced mechanisms for measuring and validating knowledge, skills and competencies across a broader spectrum of users and of competences and thus greater flexibility in assessment practice; (ii) Quality assurance and qualification frameworks.

B. The Education T. E. Commission (2016) considers that by 2030, more than half a generation of young people will be denied a future because they will not have the skills needed for the changing job market. Therefore, systemic educational management reform is crucial for developing countries to ensure performance. Strong result-driven systems are those which ensure coherence across goals, policies, and spending, a clear route from policy to implementation and effective governance and accountability. Thus, the findings by the Commission are consistent with the conceptual framework proposed for the current study. The Education Commission (2016) calls for four education transformations and provides the following recommendations:

Finance: (1) Mobilize more and better finance for education; (2) Ensure leadership and accountability for the Learning Generation.

Performance: (1) Set standards, track progress and make information public by developing a national learning assessment at primary school level and making information useful and easy to understand; (2) Invest in what has been proven to deliver result, such as preschool, basic education, remedial education, better teaching methods, bilingual instruction, computer-assisted learning and materials, community-based monitoring; (3) cutting waste by cracking down on corruption, enable teachers to spend their time teaching and cutting the cost of learning materials.

Innovation: (1) Education must change to leverage on the opportunities offered by technology, innovations in design, and new understandings of how children learn;

(2) Harness technology for teaching and learning; and (3) Improve partnership with non-state actors.

Inclusion: (1) Invest across sectors to tackle the factors preventing learning and reach all children: infrastructure, health, safety and security, etc.

Having reviewed the theories, concepts and the research results on the perspectives of education reform for education quality as mentioned above, we have come to the conclusions that education is an important factor in the access and exploitation of available science and technology, thus for economic growth. Educated population provide the types of labour force necessary for industrial development. Cognitive skills and non-cognitive skills are important for productivity and social outcomes, thus policy discussion revolves around the quality of education. However, skill mismatch emerges as a result of rapidly changing social and economic landscapes, while education institutions are too slow to catch up with the changes. A successful strategy requires implementation of systemic education reform in order to deal with complex entities and resolve multiple elements simultaneously. Actually, reform should take place at the school level. There is a trend in many countries toward increasing autonomy, devolving responsibility, and encouraging responsiveness to local needs, all with the objectives of raising performance levels through the implementation of School-Based Management. Therefore, developing countries should embark on education reform in other to improve school and teacher characteristics, as well as child and family characteristics.

Overall, education reform covers different aspects of education. It aims to respond to the needs of national development at different stages. Research revealed that cognitive and non-cognitive skills were important in economic development. It also revealed that successful education management reforms required systemic education management reform, which deals with complex entities and solves multiple desirable education elements simultaneously and coordination between top-down and bottom-up reforms. The objectives of the reform are to produce well-rounded and engaged citizen. Therefore, the researcher has chosen the research conceptual framework, which covers four main aspects of education management, namely administrative and general

management reform, academic management reform, financial management reform and human resource management reform.

2.1.9. Policy and Plan for Education Management Reform in Cambodia

Since September 2013, the MoEYS has embarked on the reform of educational programs in order to make education more responsive to meet the needs of economic diversification. Providing good quality education is critical to strengthening Cambodia's competitiveness.

Education management reform in Cambodia consists of the following pahses: (1) Diagnostical analysis of the issues; (2) Vision and Action Plans for education management reform; and (3) Implementation of the education management reform.

2.1.9.1. Diagnostical Analysis of the Issues Facing Education Sector

In 2013, MoEYS identified a number of challenges facing the education sector and laid out some key measures in order to reform education sector. These include (MoEYS, 2014):

(i) Teacher deployment and management: There are shortages of teachers working in remote areas and teacher surplus in the urban areas. Education personnel was not well-managed, as the salary level was low and there was no performance appraisal for teachers. There were more than 112,000 teachers and staff members of the MoEYS, representing 60% of the civil servants. Strengthening human resource management appears to be the government's top priorities.

(ii) Irregularies in conducting examinations at all academic levels: There are irregularities in the exam process, such as the leakages of exam paper subjects before the exam dates and cheatings through the use of smart phones. The public did not trust the integrity of the exam process.

(iii) Education quality: the quality of education at all academic levels has declined and technical and professional training does not meet the needs of the development of the country.

(iv) Lack of skilled workforce: Investors are not able to find sufficient numbers of skilled workers while the university graduates cannot find employment, due to the skill mismatch.

To address the above challenges, the MoEYS launched the education management reform, consisting of eight priorities. For each of the priority, an action plan was developed to identify concrete reform measures. To this end, priorities were given to policy and legal frameworks, sector management, school and classroom factors, coordination, and partnership in education.

First Priority - Education financial management reform: strengthening financial management aimed to use the existing resources with high effectiveness and mobilize additional financing for education. The MoEYS Head Office to provide a role model for the reform. The Ministry introduced decentralized financial management by moving decision making on budget management from the top management to the department level. Thus, each department has both policies and financial resources to implement the policies. This allows institutional capacity to be built at the department level. Reallocation of budget within the education sector enables the budget to be responsive to policy priorities. Education policies have been implemented efficiently with adequate human and financial resources.

Second Priority - Administrative and general management reform: Implementing the civil service reform and introducing performance-based promotion and personnel management based on staff experiences and capability, salary increase to improve teachers' satisfaction.

Third Priority - Examination reform: Improve the national learning assessment by ensuring integrity of the exam process, based on the principles of fairness and transparency. Grade 12 examination reform provides incentives to the students to work much harder and the teachers to improve teaching. The scores obtained from the Grade 12 exam provides information on the strengths and weaknesses of the education system.

Fourth Priority - Improving Education Quality: Education quality should respond to the needs of rapidly changing structure of the Cambodian economy. Providing good quality education is critical to strengthening Cambodia's

competitiveness. There is an understanding that access to education is not enough. Skills, both cognitive and non-cognitive skills will contribute the long-term economic development of the country.

Fifth Priority - Higher education reform: Higher education institutes (HEIs) are required to improve governance and programs to address the skill mismatch. To this end, there is a need to improve the regulation of HEIs, aimed at developing human resources with high skills and ensure the link between universities and industry.

Sixth Measure – Provision of technical (hard) skills and non-cognitive (soft) skills to young people: Addressing skill mismatch is crucial to preparing Cambodia for the ASEAN Economic Community (AEC) and to responding to the Cambodia's labour market needs and expand employment opportunities for young people. There is a need to coordinate between the general education track and the vocational education track in the education system. There is also a need to improve the teaching of life skills and entrepreneurship programs at school. Skill mismatch can also be addressed by organizing "Career Forum" for students in order to allow them to meet with the representatives of the enterprises and companies.

Seventh Priority - Creating think-tank of education sector, called the Education Research Council (ERC): Its membership is drawn from among experts working in universities with a view to strengthening institutional capacity of the MoEYS and provide third views on education reform.

Eighth Measure - Reform on physical education and sport: in order to get prepared for the SEA Games in 2023.

The education management reform programs focus on the following four factors:

- Legislation/Policy framework: Commitment, Laws, policy and planning, integration and complementarity, administration, public financial management, governance and accountability;

- Sector management: Human resource management, effective interventions and strong support, assessment, exam and monitoring, education

management information system (EMIS), institutional capacity development, implementation of programs and policies.

- Classroom and school factors: Curriculum, pedagogy, learning environment, learning assessment, leadership, ICT, health and hygiene;

Partnership and coordination: Parents and community involvement, sector and inter-sectorial coordination, development partner coordination and participation.

The eight reform priorities were implemented in earnest during 2014. The results of the Grade 12 examination reform provides the MoEYS with a clear and comprehensive diagnostic of the challenges facing Cambodia's educational system. They were analyzed using the Action Research methodology. After introducing examination reform, the success rate for Grade 12 exam decreased from 85% in 2013 to only 25% during the first session in 2014. The students' scores on STEM (Science, Technology, Engineering and Math) were extremely low. MoEYS immediately organized special training courses for math and sciences teachers, who provided additional classes to their students. Therefore, the implementation of education reform in 2014 provides additional information for actions, notably the need to improve teacher qualification and school management. The findings were used to develop a new strategy and vision for educational management reform.

2.1.9.2. Development of a Vision and Plans of Actions for Education Management Reform

In 2015, the MoEYS launched a comprehensive and systematic reform program. The Annual Education Congress, held in March 2015, was used as the occasion to launch the Vision for Education Management Reform, which consists of five pillars (MoEYS, 2015a):

2.1.9.2.1. Teacher Policy Action Plan

The teaching staff represents 83.30% of the total MoEYS staff in the whole kingdom during academic year 2013-2014. There are currently 90,000 teachers in the system, among which approximately 52% teaching in primary schools, 31% in lower secondary schools, 12% in upper secondary schools, and 5% in preschools.

The number of educational personnel who move out of teaching profession is more than 2,000 per year (e.g. in 2012: 2,017 and in 2013: 2,137). The total number of new teachers recruited and trained is around 5,000 annually. Particularly at the upper secondary level where the attrition rates continue to increase, which creates major supply problems and lower the quality. Moreover, the utilization of teachers including deployment and pupil-teacher ratio is not appropriately implemented compared to the set principles.

Based on the 2013 Teacher Policy, the 2015 Teacher Policy Action Plan (TPAP) was adopted by the MoEYS in order to comprehensively address the issue of teacher quality improvement by linking a range of strategies to the powerful incentive of a significant increase in income and social status (MoEYS, 2015b). The objective of the TPAP is to develop teachers with knowledge, skills, moral and professional competencies recognized by the society. To develop teachers with quality, competencies and accountability of the teachers should be improved in line with their professional code of conduct, so as to create enabling conditions for improved teaching. The main objectives of teacher policy are to upgrade the standards of teacher education before they teach in the classroom (PRESET), provide opportunity to the existing teachers to have oppoertunity for continuous professional development (INSET) and provide technical and financial support to teachers.

The policy objectives of the TPAP is to improve teachers' qualification level from 2020: (i) For pre-service training for school teachers the requirement will be 12+4 or Bachelor +1; (ii) For pre-service training for teacher trainers will be Master + 1; and (iii) All newly recruited teachers will hold at least Bachelor Degree.

Teacher reform consists of the following areas:

1. Attracting competent persons into teaching profession

- Provide financial and social benefits to teachers by improving the remuneration system, salaries, and other financial and social benefits;

- Diversify entry points into the teaching profession (allowing the Bachelor degree holders from both public and private higher education institutions (HEIs) to obtain teaching license;

- Provide accelerated training for the existing 12+2 teachers to be upgraded to BA holders;

- Make Teacher Training Centers (TTC) entry requirements more selective and competitive;

- Candidates scoring Grades A, B, C on Grade 12 national exam are automatically admitted to TTCs;

- Revised TTC Entry Examinations: (i) Ensure exams in line with the principles of fairness, transparency, and accountability, (ii) Written test, (iii) Face-to-face interviews for short-listed candidates, (iv) Raise upper age limit and (v) Monitor during the training.

2. Teacher training

- Revise preservice teacher training (PRESET) curriculum across all levels by creating B.Ed. (12+4) PRESET curriculum for Grade 12 graduates to become Basic Education teachers in Regional TTCs focusing on Psycho-pedagogy, ICT, methodology, foreign languages, Math and Science;

- Creating MA+1 PRESET for MA holders to become upper secondary teachers in National Institute of Education (NIE);

- Piloting B.Ed. (12+4) PRESET at two Regional TTCs;

- Improve the teacher induction process to be more effective;

- Develop the infrastructure of the teacher training centres;

- Transform teacher training centres into centres for teacher development;

- Increase professional qualifications and experiences of TTC lecturers to at least MA level.

3. Teacher Management

- Modernize teacher planning supply and demand by integrated all data sources such as the Education Management Information System (EMIS), Human Resource Management Information System (HRMIS), Higher Education Management Information System (HEMIS), Non-Formal

Education Management Information System (NFEMIS), Financial Management Information System (FMIS);

- Strengthen teacher utilization based on the staffing norm and principles to improve the implementation of teacher deployment;

- Improve the process and procedure of teacher recruitment/selection and the retention of outstanding teachers;

- Delegate the recruitment and management of teachers;

- Involving SSC members and stakeholders to actively participate in decision making over teachers and school matters (recruitment, award, sanction, local life skills, transfer, discipline, evaluation, public forums, meetings, students' voice, assessment of their local services etc.).

4. Professional development for teachers

- Cultivate a culture of life-long learning and sharing the experiences with educational network groups and upgrade teacher's qualification up to BA through 1.5 months training program for three times;

- Inservice teacher (INSET) Development and Implementation (Strengthen the knowledge of teachers teaching grades 9 and 12 on the prioritized subjects Khmer, Math History, Sciences);

- Create comprehensive regular INSET system with three types of training (a) On-site INSET, (b) Irregular INSET based on the need of MoEYS and (c) Regular INSET with proper system and programs;

- Upgrade teacher trainers' qualification to at least MA to meet the market demand and to be respected and given value by the society;

- Offering 1,000 Scholarships and Fast Track INSET Program per year for teachers who obtain BA/MA;

- Establish a credit-system for unifying all types of INSET to upgrade the qualification and additional benefits (pay, promotion);

- Strengthen the on-site teacher support systems to assist school teachers on subject knowledge and pedagogy;

- Develop program for Teacher Education Provider's INSET trainers to participate in on-site INSET trainings.

5. Teachers motivated and retained in the system

- Improve conducive working environments and living conditions of teachers through the provisions of salary, remuneration/ compensation, social welfare, general benefits and retirement benefits, particularly females teacher and those who work in remote and disadvantaged areas (salary, family allowance, study health insurance, life insurance, loan/credit schemes, subsidizing housing, overtime teaching, pension benefits etc.);

- Provide more teaching/ learning materials, equipment/tools and research references to teachers;

- Provide more facilities to improve working condition of teachers in rural and remote schools (latrine, teacher housing);

- Provide recognition and rewards to outstanding teachers (to remain in the system);

- Create annual Teacher of the Year Award (achievements and experiences) to honor the best teachers. They can share best practices and teaching methods on core subjects;

- Create teacher career pathway: teacher, manager and specialist;

- Develop a regular support network such as Study Clubs/ Professional Association by subjects for technical support, conduct research, organize conference, publish achievements and best experiences;

- Form subject-specific technical support group to assist teachers and organize technical meetings regularly to discuss the issues of teaching and learning.

6. Strengthening school leadership

- Develop School Director Standard, School Management Handbook;

- Train school directors based on School Director Standard with priority given to women;

- Create School Director Association/Council and establish mechanisms to support school director;

- Protect and promote rights of teachers to ensure that all teachers receive same justice through transparent school management;

- Improve professional criteria required for the recruitment, training, employment, and the benefits of teacher trainers and school board.

7. Strengthening teacher monitoring and evaluation systems

- Improve the effective teacher management information system;

- Creating monitoring and evaluation mechanism for all teachers which based on Teacher Professional Standards, staffing norms, teacher qualification, and Teacher Career Pathway;

- Strengthen on-site monitoring through inspection and provide the rights to school directors to monitor and give feedback to teachers;

- Improve scope and capacity of inspection, collect the feedbacks from teachers to improve educational related policies (conduct annual survey to track teacher's opinions on recent policy reforms, working conditions, incentives schemes);

- Define the rights of school board of directors of public education establishments in making decisions over the management and organizational development.

The TPAP called for a comprehensive package of reforms that established an ambitious agenda for improving the national education system by laying out the roles and responsibilities of teachers, principals, supervisors, and local education authorities,

as well as identifying the strategies needed to improve the quality and welfare to support the 2007 Education Law.

The Teacher Policy defined the competencies required of teachers in four areas (pedagogic, personal, social, and professional); and the incorporation of those competencies into Teacher Professional Standards. The most important feature of this policy was its attempt to "re-professionalize" teaching by developing teachers with knowledge, skills, moral and professional integrity and competencies.

Qualified teachers play a crucial role in the provision of good quality education to meet the SDG Targets 4.c (UNESCO, 2016a). Research shows that improving teacher characteristics, such as teacher's level of education, experience, knowledge, gender, in-service training, pedagogical methods will contribute to higher education quality (Glewwe et al., 2014). Better qualified teachers also impart to the students not only knowledge and skills, but also values, discipline, responsibilities, ethics and commitment to actions. Therefore, supply of qualified teachers and integration of good citizenship into the national curriculum are expected to have positive impacts on the teaching and learning of both national and global citizenship education.

Overall, the TPAP is an ambitious reform program, which spans across multiple aspects of human resource development in the education sector. Therefore, there is a need for prioritizing the teacher reform program to focus on three main priorities that would greatly contribute to better learning outcomes. For this purpose, the researcher combined (1) Attracting competent persons into teaching profession with (2) Teacher training and (3) Teacher management under the rubrique of (i) Teacher pre-service education (PRESET). The researcher used the following components to designate (ii) Teacher in-service training (INSET): adopt and implement the Policy on Continuous Professional Development (CPD); cultivate a culture of life-long learning and sharing the experience and provide inservice training to existing teachers on new teaching methods and mentoring programs; and promotion of collaboration, use of effective practice, coaching and expert support for inservice teachers, including the establishment of Professional Learning Communities (PLCs). The researcher combined (5) Teachers are motivated and retained in the education system, (6)

Strengthening school leadership and (7) Strengthening teacher monitoring and evaluation systems to create a third component: Assessment of teachers' performance.

Therefore, the concept of human resource management reform, for the purpose of this research, should consist of: (i) Increasing teacher PRESET qualifications; (ii) Providing INSET training to existing teachers; and (ii) Assessment of teachers' performance. The three aspects of teacher reform is also consistent with the research made by P. Glewwe (2014).

2.1.9.2.2. School Inspection

School inspection consists of four components: Framework for Quality Assurance (QA); Tool for QA; Quality Assurance through EMIS (QEMIS) and Capacity development for QA. As a result, the regulation on Quality Assurance Framework for Pre-schools and General Education was adopted in February 2015. There are two forms of inspection: regular and thematic. A regular inspection is conducted in all schools once every five years and focus on four main areas: (i) Leadership and management, (ii) Teaching and learning, (iii) Student's achievements, and (iv) Support by the communities.

The inspectors assess the areas above from how well the school is managed to achieve the national objectives. The quality assurance activities will focus on enhancing and improving the process that is used to create the end result. For the Cambodian school system this means that the children and students acquire knowledge, skills, capacities, dignity, good moral behavior and characteristics, in order to push the learners to know, love and to become good citizen.

School inspection assess whether the schools fulfill their responsibilities in relation to the regulations set out in the Education Law. The inspectors also have to evaluate how well educational activities and schools are functioning in relation to other national objectives and the national curriculum.

Core purpose of inspection:

- Strengthening the implementation of Education Law & regulations;

- Implementing a self-evaluation system;

- Proposing strategies for school development;

- Informing national level about educational situation;

- Providing quality assurance and accountability;

- Promoting effective practice in schools;

- Ensuring curriculum implementation at school level;

- Providing frameworks and guidelines for quality improvement.

Inspection at different levels

a. Internal inspection:

- School-level Self-evaluation: Analysis about 'Where are we?', Where are we going? Objectives? How? Activities? Results? The school director has a key role:

  o A systematic process of quality improvement:

    ▪ Difference between different groups?

    ▪ Difference between different subjects?

    ▪ Difference between the result of this year and last year?

  o Check/assess against laws and regulations and research about success factors;

  o Analyze together with the teachers: What areas need to be improved?

- District Department of Education (DOE) plays a role as part of the internal inspection mechanism to provide support for cluster schools, provide support and advice and provide training and monitoring under the Child-Friendly School policies.

b. External inspection:

- National level – Thematic inspections. The inspection is carried out by the Education Quality Assurance Department (EQAD):

- A thematic inspection is a systemic examination and assessment of the quality by topics, such as learning outcome, dropout or by subjects such as math and science;

- The assessment is based on an interpretation of national goals and guidelines, supported by research findings and best practices;

- A thematic inspection is carried out in a sample of schools (15 – 40), EQAD plan for 2 -5 topics every year;

- Thematic inspections Methods: Develop methods for each topic; Written documentation; Observations; Interviews with key personnel and students.

Provincial level – regular inspections

Regular inspection:

- Regular inspection means an examination and assessment of schools by trained inspectors to ensure that they comply with the laws and regulations and to get a better practice in the schools;

- The regular inspection will be carried out by inspectors in the 25 provincial offices;

- The regular inspection is a systemic inspection.

Tools in regular inspection:

- Assessment manuals;

- Observation manual;

- Questionnaires;

- Interview manual;

- Report manual and templates.

Areas inspected in regular inspection:

- Leadership and management;

- Teaching and learning;

- Students' achievements;

- Schools' self-evaluation.

Frequency of inspection in regular inspection:

All districts in 5 years;

50 % of schools in a district;

Average 2 days inspection;

Tasks for provincial inspectors (provincial office)

- Plan for inspections (long term and short term);

- Risk analysis to decide which schools should be inspected;

- Information letters to districts and schools;

- School visits;

- Reports (to schools and districts);

- Yearly analysis (to EQAD).

2.1.9.2.3. Learning Assessment

The quality of education can only be sustained by improving various components of the education system. At the micro level, the focus of attention should be given to the behaviours of students and the characteristics of their parents or families (Colman & Briggs, 1966), schools (Creemers, 1997; Sammons, Hillman, & Mortimore, 1995) and teachers (W. J. Bennett, Finn Jr, & Cribb Jr, 1999; Eric Hanushek, 1971) ; Way (Rivkin, Hanushek, & Kain, 2005; Sammons et al., 1995; Young, 2003).

Learning Assessment consists of grade assessment, examination, national, regional, and international test. Assessment plays a very important role in promoting quality education. Assessment, therefore, has been considered as one of the pillars of education reform in Cambodia.

Cambodia piloted Early Grade Reading (EGRA) test, as part of National Assessment Tests from 2005 to 2010, as one of several initiatives underway to address

quality. The tests conducted in 2010 and 2012 led to the adoption and implementation of a new reading phonic or Chet Chhem methodology. The reform includes:

1) Strengthen all types of examination: MoEYS will continue the secondary exam reform using the slogan that "who know will pass"; 2) National learning assessment: Conduct regular national assessment on Khmer and Math for grade 3, 6 and 8, as well as Early Grade Reading Assessment (EGRA) and Early Grade Mathematics (EGMA) for grades 1 to 3; and 3) Regional and International Assessment: Regional and International Assessment such as Primary Learning Matrix (PLM) under SEMEO and PISA for development under OECD.

2.1.9.2.4. Review of Curriculum Review and Textbooks

The development of the school curriculum is at the core of the effort to improve the quality and efficiency of education and to make education responsive to national development. School curriculum should be reviewed on a regular basis to respond to the needs of the labor market. The curriculum seeks to develop human resources holistically to ensure the development of knowledge, skills, moral values and global citizenship (lean to know, learn to do, learn to be and learn to live together). It also aims to promote soft, non-cognitive skills or the skills of the 21st century, i.e. critical thinking, problem solving, working in team etc. The education system, therefore, has to train students in all levels of skills to meet social and economic needs of the country, as well as the skills of life-long learning. This curriculum review is also a response to the establishment of the ASEAN Community by the end of 2015. It will promote equitable access to Basic Education and promote quality and responsive education and increase accountability in developing standards in three school levels (primary, lower and upper secondary education). The curriculum development aims to equip learners with knowledge, skills and attitudes to support their daily lives and further studies. More importantly, this curriculum framework aims to improve the quality of education in response to the changing world and to support the efforts deployed by the Royal Government of Cambodia to move Cambodia to a high middle-income status by the year 2030 and high-income country by the year 2050. In order to realize this goal, Cambodia has to promote a certain number of factors that ensure the economic growth and improve its competitiveness in creating a new industrial sectors and generate

employment. Several strategies are used to translate the curriculum into classroom practices such as child-centered active learning, appropriate learning events for initial learning, reinforcement of learning, and application of learning. Child-centered active learning and local specific activities are the most effective strategies to increase the subjects' relevance to learners. Several factors contribute to the positive results in curriculum delivery: child-centered methodology, updated content of curriculum, the new education system, improving contribution of teachers, provision of a textbook and supplementary learning materials to each pupil, and consistent MoEYS policy actions.

Curriculum review also focus on improving the teaching and learning of subjects related to science, technology, engineering and mathematics (STEM). To support the curriculum, the MoEYS adopted in 2016 a STEM Education Policy that lays out strategies for a comprehensive approach to improved STEM education services in schools.

Curriculum, core textbooks including math, sciences, history and Khmer will be reviewed by expert's committee and using research budget;

Planning to construct more secondary schools to expand access to secondary education;

Develop a guideline on sanitation measures for school feeding program at schools and adopt minimum standards on water and sanitation for primary schools;

Increase the amount of scholarships for poor and gifted students in primary and secondary schools.

2.1.9.2.5. Higher Education Reform

Since the mid-2000s enrolments in education have risen rapidly, initially at the primary level, then at the secondary level. Expansion in secondary education has subsequently led to an increase in higher education enrolments. During the last decade, the absorption capacity of Cambodian higher education institutions has increased rapidly. The total number of students rose from 8,902 in 1998 to 124,947 in 2008 and to more than 250,000 students in 2014. The gross enrolment rate (GER) - that is, students enrolled as a percentage of the group aged 19-23 years - in a tertiary institution, increased from 1.4% in 1998 to 11.1% in 2008, and then to 15% in 2014 . As the

Cambodian economy has shifted from basic agriculture and services to higher value-added manufacturing and service sectors, the country needs more tertiary-educated workers.

Both public and private universities have contributed to a significant mismatch of skills between those gained by the majority of graduates and those needed to meet the needs of economic growth. It is more financial viable for higher education institutions (HEI) to offer fee-paying, low-cost courses, such as IT, finance, accountancy, law, business and management than to offer STEM (Science, Technology, Engineering and Mathematics) programs which need substantial teaching resources. More than half of Cambodian students are enrolled in social science and business courses, while the country is ranked as one of the lowest intakes in engineering (2.5%), agriculture (3%) and science. The challenge faced by the economy as a whole is that both public and private universities do not take the needs of the labor market into account. This leaves Cambodian graduates at a significant disadvantage when competing for employment which requires technical or higher-level management skills or high level soft skills. This is particularly noted in the Engineering, Technology, Hotel, Catering and Tourism sectors.

In response to the emerging skill mismatch and Cambodia's transition from a low-income to a middle-income country, the second wave of reform focuses on the education reform that has been conducted since 2013.

In order to transform higher education, actions must be taken to improve the quality of higher education, (1) and to implement reform measures. (2) Improving Quality through Accreditation and Internationalization of Higher Education in Cambodia.

In 2013, the Accreditation Council of Cambodia (ACC) Secretariat was transferred from the Office of Council of Ministers to the MoEYS. As higher education reform tops the ministry's agenda, ACC was required to review the standards for accreditation. As a result, a National Standard for Accreditation of Higher Education Institutions was adopted on 26th January 2015. There are 9 standards with a total of 73 indicators.

National Standards for Higher Education Accreditation: There are 9 standards with 73 indicators:

Standard 1: Vision, Mission and Goal (3 indicators)

Standard 2: Good Governance and Management (6 indicators)

Standard 3: Education Staff (11 indicators)

Standard 4: Education Program (7 indicators)

Standard 5: student service (13 indicators)

Standard 6: Education Resource (14 indicators)

Standard 7: Facilities (6 indicators)

Standard 8: Financial resource (7 indicators)

Standard 9: Internal Quality Assurance (6 indicators)

The reform of higher education puts emphasis on:

- Establish only new private higher education institution which responds to priority sector in the social economic development and labor market demand;

- Encourage HEIs to develop strategic plan;

- Promote research activities;

- Upgrade lecturer's capacity;

- Strengthen cooperation with foreign institutions; and

- Enhance training skills in science, technology, engineering and mathematic (STEM).

2.1.9.3. Implementation of Education Management Reform

During 2014-2016, actions were undertaken by the MoEYS to implement education management reform (EMR). The five EMR pillars are divided into 15 Action Plans as follows: 1) public financial management reform (PFMR); 2) deployment of teachers; 3) teachers training centers; 4) upgrading teachers qualifications; 5) strengthening inspection system; 6) learning assessments; 7) upper secondary examination; 8) curriculum and core textbooks review; 9) school building construction and repair; 10) assessment of higher education institutions; 11) reforming sport sector; 12) implementation of youth policy; 13) improving technical education; 14) introduction of new generation schools; and 15) school principals training and career

pathway. The implementation activities can be broken down by the following components (MoEYS, 2015a):

2.1.9.3.1. Administrative and general management reform

- In 2014, MoEYS in introduced the use of the banking system to pay salary to education staff at national and sub-national staff and reviewed staff management system to improve personnel management;

- MoEYS streamlined the management system to ensure timely payment of salary and allowances;

- MoEYS provides incentives to teacher students at the Regional Teacher Training Centers (for lower secondary school teachers) and at the National Institute of Education (for upper secondary school teachers) by providing them with functional allowances;

- MoEYS reformed the salary system of the education sector by creating a special functional allowances for education staff (combining pedagogy allowance, regional risk allowance and health risk allowance) and increased education functional allowances higher than the average of civil servants;

- MoEYS revised the guidelines on appointment of management staff by introducing qualification and performance evaluatoin system for staff members to improve the mechanism of appointing management staff;

- MoEYS disseminated and implemented the guidelines on promotion for education staff;

- MoEYS finalized the document on education staffing norm and piloted it in Phnom Penh, Kandal, Battambang, Mondulkiri and Svay Rieng from 2014-2015 onwards in order to strengthen management of education staff;

- MoEYS completed the document on education staff performance monitoring and evaluation and piloted it from Semester 2 of 2014.

2.1.9.3.2. Education Financial Management Reform

- MoEYS worked with Ministry of Economy and Finance to review regulations related to budget norms (Inter-Ministerial Prakas No. 508 SHV.PrK on Expenditure Guidelines for Program-Based Budget in MoEYS) by increasing amount for each expenditure item; revised the Sub-Decree No. 174 ANKr.BK dated April 12, 2014 on Scholarship and Dormitory Living Allowances for Students in Public Higher Education Institutions by increasing the amount of scholarship and dormitory living allowances for students;

- MoEYS introduced in 2015 decentralized budget management by creating budget entities for all technical departments and Provincial Offices of Education (POE) and prepared Program Budgeting (PB) for all budget entities;

- MoEYS improved public procurement for all purchase in order to enhance efficiency and transparency and to save the budget for priority use. MoEYS managed to save around USD 7 Million and used the savings to increase salary of education staff;

- MoEYS reviewed the management and use of state assets and all types of vehicles;

- MoEYS strengthened the management of asset inventories to ensure that the property of schools at national and sub-national levels is protected;

- MoEYS adopted guidelines on budget audit to improve financial management.

2.1.9.3.3. Examination Reform

- Reform of Grade 12 examination under the slogan "Those Who Learn Will Pass" has led to improved learning outcomes and gained support from the students and parents;

- MoEYS has gained trust from stakeholders in terms of the conducing the examination by eliminating and preventing irregularities and promoting the respect for teachers;

- MoEYS decentralized Grade 9 examination to the school level and require them to administer writing test and grading test papers;

- MoEYS has improved the recruitment of teachers at all levels in order to select the best candidates to become teachers.

2.1.9.3.4. Improving Education Quality

- MoEYS adopted in 2014 the National Action Plan on Early Childhood Care and Development in 2014-18;

- MoEYS created a high-standard public school, called the New Generation School (NGS) in order to improve education quality and learning outcome. Teachers are well-trained and schools are equipped with state-of-the-arts facilities;

- MoEYS plans to create model schools at secondary level with focus on qualified teachers, full implementation of education policies, improved school environment and facilities, laboratories and teaching foreign languages;

- MoEYS planned to construct additional secondary schools in order to increase access to education at secondary level;

- MoEYS increased scholarship allowances for poor students in lower secondary education and for poor and outstanding students in upper secondary schools;

- MoEYS adopted guidelines on hygiene measures for school feeding programs and the minimum standards on water, sanitation and hygiene for primary schools;

- MoEYS adopted a Teacher Policy Action Plan (TPAP) to improve quality of teachers in Cambodia;

- MOEYS adopted education quality assurance framework in order to introduce school inspection. MoEYS is providing trainings to inspectors on school management and teacher inspections.

- MoEYS conducted national learning assessment of Khmer and Math subjects at grade 6;

- MoEYS reviewed and adopted a new curriculum framework and reviewed textbooks at all levels.

- MoEYS introduced Life Skill modules and introduced new English Textbooks for secondary schools.

2.1.9.3.5. Provision of technical (hard) skills and non-cognitive (soft) skills to young people

- The National Policy on Youth Development was adopted and MoEYS formulated and adopted its Action Plan for implementation;

- A General Secretariat was established to coordinate the implementation of the National Policy on Youth Development;

- New provincial Youth Development Center were created under MoEYS to allow youths to get training on technical skills and soft skills;

- MoEYS developed modules and provided short-course trainings on entrepreneurship and volunteerism to young people at the Youth Development Centers and launched IT center to provide youths with IT skill trainings.

2.1.9.3.6. Creation of the Education Research Council

- MoEYS established an Education Research Council to conduct research and formulate education policies.

2.1.9.3.7. Reform of Physical Education and Sport

- The Policy on Development of Physical Education and Sport was adopted;

- MoEYS improved the management of the National Olympic Stadium and upgraded it to enable Cambodia to host international matches;

- MoEYS works with the Cambodian Football Federation to create the National Footbal Academy to train athletes for the forthcoming SEA Games in 2023, when Cambodia will be the host the event;

- Prepare a training plan to prepare new generation athletes to prepare for SEA Games 2023, including training of trainers, referees and anti-doping agents;

- MoEYS increased the amount of rewards provided to winners of gold, silver and bronze medals in international competitions, as well as their trainers: Riels 40 Million for gold medal; Riels 30 Million for silver medal and Riels 16 Million for bronze medal.

Despite the difficulties in the study of different reforms, there is the need to develop more rigorous theoretical perspectives on the origins and effects of systemic educational reforms. Although educational planners, policy makers, administrators are more concerned with political and technical considerations, there is a need to understand better educational reform strategies and tactics.

2.1.10. Education Management Reform Strategies in Some Asian Countries

According to Cheng (2001), there are three waves of education management reforms. Different countries, facing different historical, economic and contextual conditions, are at different phases of reforms. The following are the key paradigms and characteristics of the three waves of education management reforms in international contexts.

The first phase of education management reform emphasizes internal effectiveness, by enhancing internal school performance, especially the methods and processes of teaching and learning. This top-down approach aims to ameliorate school arrangements and education practices in order to reach the goals and objectives at school or the system level. The target is to increase teacher and student performance to some level of standards.

The second phase of education management reform focuses on interface effectiveness in order to meet education quality, stakeholders' satisfaction, and market competitiveness. The interface between the school and the community requires quality assurance, school monitoring, parental and community involvement in governance, school charter and performance-based funding.

The third phase of education management reform concerns future effectiveness in order to respond to the new education functions in the 21st century and to ensure relevance to learning, teaching and schooling within the context of the triplization, i.e. globalization, localization and individualization. Educational globalization offers opportunities for Internet-based learning, video-conderencing and international collaboration in learning and teaching. Localization in education includes community support and partental involvement, school-based management, and community-related curriculum. Individualized education programs and individualized learning targets and methods motivate students and teachers to be self-learning, self-actualization, and self-initiating (Cheng, 2001).

Hong Kong embarked on the first wave of education management reform during the 1970s by using a top-down approach and increasing resources inputs, aimed at improving language teaching and learning, teacher quality, curriculum development, teaching and learning conditions. However, the impacts of the first wave of reform were limited, because the reform ignored school process and school-based needs (Cheng, 2001). To address these shortages, Hong Kong initiated in 1997 the second wave of education management reforms, which is characterized by: (i) school-based management approach (schools are not homogenous; school is the unit of improvement); (ii) bottom-up reform (school principals and teachers are at the forefront of the educational management reform in terms of education practices and quality improvement); (iii) quality assurance and accountability (schools have the autonomy and flexibility to use public resources to implement activieis within a framework of accountability); (iv) awareness of the need of research (the use of knowledge and research to support policy discussion and formulation and to improve educational practice). At present, Hong Kong has embarked on the third wave of education management reform in response to technological, economic, social, political, cultural, and learning globalization. The aim of the reform is to support students to become a multiple intelligence (CMI) citizen, i.e. within the Gardner's framework of seven human intelligences, including musical intelligence, bodily-knesthetic intelligence, logical-mathematical intelligence, inguistic intelligence, spatial intelligence, interpersonal intelligence, and intra-personal intelligence (Cheng, 2001).

Tan and Gopinathan (2000) provides a synthetized review of a series of education management reform in Singapore. Since the mid-1980s Singapore has implemented a series of education management reform programs, aimed at enhancing national economic competitiveness in the global economy. Education mangement reforms in Singapore focus on increased school autonomy and interschool competition. Initially, eight (or 5 percent of 163) secondary schools were granted by the Ministry of Education autonomy and flexibility in recruitment, deployment and reward of staff, finance, management and curriculum. However, these independent schools were criticized for its elitist nature and for charging high fees. This led to the creation in the 1990s of 18 autonomous schools, which charge more affordable fees, but enjoy a lesser degree of operating autonomy.

The second characteristics of education management reform in Singapore emphasizes competition among schools. Schools are forced to improve their programs and parents can make choices based on ranking. Secondary schools have been ranked on three criteria: (i) composite measure of students' overall results in the annual General Certificate of Education (Ordinary) Level examination; (ii) students' examination performance with their examination scores upon entry to their respective schools (after O Level); (iii) weighted index of school performance in the National Physical Fitness Test and the percentage of overweight students in school.

After the onset of the Asian Financial Crisis in 1997, major education management reform initiatives were launched to foster creativity and innovation in students. The first one was 'Thinking Schools, Learning Nations'. The education reform strategies include: (i) teaching of critical and creative thinking skills; (ii) the reduction of subject content; (iii) the revision of assessment modes; and (iv) a greater emphasis on processes instead of on outcomes when appraising schools. The second initiative was the 'Masterplan for Information Technology in Education' to promote information technology in teaching and learning in all schools. It aims to establish whole-school networking and provide computers to students and teachers (Tan & Gopinathan, 2000).

2.1.11 The Conceptual Framework of Education Management Reform

From the above definitions, we can conclude that systemic education management reform cover activities that concern all aspect of education management reform, such as administrative and general management reform, academic management reform, financial management reform and human resource management reform (MoEYS, 2017; UNESCO, 1989). In short, a systemic education reform requires a strong systemic link between education policies at the ministerial level to teacher training institutions and ultimately to the schools and the classrooms.

2.1.11.1 Administrative and General Management Reform

Administrative and General Management Reform requires the coordination between, on the one hand, (1) the implementation of policies at the national level, such as the national education policy, the Education Strategic Plan (ESP), the Law on Education, related policies and administrative structure (division of education management at national provincial, district and school level) and, on the other hand, (2) the implementation of policies at school level, such as school management; and (3) community involvement in school activities.

Education policies and the ESP are implemented with: (i) the development of a comprehensive change program and set targets for performance to achieve stated educational outcomes (Fullan, 2007; Hoy & Miskel, 2008; MoEYS, 2017; UNESCO, 1989); (ii) the updating education policies to be consistent with clear goals, i.e. the Sustainable Development Goals (SDG) (Fullan, 2007; MoEYS, 2017); and (iii) building institutional capacity and establishing a sound monitoring and evaluation mechanism at all level to implement education management reform (World Bank, 2018; Elmore, 2004; Fullan, 2007; MoEYS, 2017).

At the school level, administrative education reform can take the form of School-Based Management (SBM): (i) successful reform requires coordination between top-down (national education policies, Education Strategic Plan) and bottom-up (school policies, school culture) reforms, designed to modify schools in an in integrated, coordinated and coherent fashion to achieve clearly stated education outcomes (Fullan, 2007; Hoy & Miskel, 2008; MoEYS, 2017; UNESCO, 1989); (ii) SBM requires the transferring responsibility and accountability for and decision-

making over school operations to the School Management Committee (consisting of school principals, teachers, parents, and community members) in the areas of budget allocations, human resource management, curriculum development, procurement of educational materials and infrastructure improvement (Bruns et al., 2011; MoEYS, 2017); (iii) This reform also aims to empower principals and teachers, strengthen their professional motivation, thus enhancing their sense of ownership of the schools (Bruns et al., 2011; MoEYS, 2017).

There is a trend in many countries to increase autonomy, decentralize responsibility, and encourage responsiveness to local needs in order to improve performance (Bruns et al., 2011). Bruns et al. (2011) provide a comprehensive analysis of education service delivery from the perspective of the principal-agent problem. Ministries of Education are the agents of the citizenry, while parents and students can be considered as principals, who try to demand education quality. The users of education services hold the state accountable. At the same time, the state also holds service providers (schools and teachers) accountable for their performance. The World Development Report 2004 describes a framework for a three-cornered relationship between citizens, politicians, and service providers. The service provision and accountability relationships among these actors are complex. There are many groups of actors involved. The incentives and accountability relationships that work for one group may be different from those that work for other groups (World Bank, 2009). The advocates for a comprehensive educational reform argues that reform strategies that build from diverse perspectives are necessary to support continuing participation of parents and communities in school management: (i) pedagogically, politically, and practically schools and communities must be brought together (Anson, 1994; Bruns et al., 2011; Fullan, 2007; MoEYS, 2017; UNESCO, 1989); (ii) involvement of schools and parents/ community to improve student learning outcomes by: parent skills, communication, volunteering, learning at home, school decision making and collaboration with community agencies (Bruns et al., 2011; Fullan, 2007; P. Glewwe, 2014; MoEYS, 2017; UNESCO, 1989); (iii) parents and community provide support for school and exert pressure on school to increase performance and improve learning outcomes (Bruns et al., 2011; Fullan, 2007; P. Glewwe, 2014; MoEYS, 2017).

However, from time to time, the market for education suffers from market failures. This requires the government to intervene and rectify the problems. In order to improve education services, many countries have adopted a set of three accountability reform strategies (Bruns et al., 2011):

Information for accountability: generation and dissemination of information about school rights and responsibilities, inputs, outputs, and outcomes;

School-based management: decentralization of school-level decision making – autonomy – to school-level agents;

Teacher incentives: policies that link pay or tenure directly to performance.

Therefore, we can summarize the administrative and general management reform as consisting of: (i) Education policy and Strategic Plan; (ii) School-Based Management; and (iii) Community involvement in school.

2.1.11.2 Academic Management Reform

Academic Management Reform requires the coordination between the national curriculum standards, teaching and learning process and student learning assessment and school inspection.

The curriculum and textbook review is required to: (i) introduce quality citizenship concepts and generate questions on knowledge and ensure that the topics are covered in great depth (World Bank, 2018; MoEYS, 2017); (ii) utilize new instructional resources, curriculum materials and technologies (World Bank, 2018; Elmore, 2004; Fullan, 2007; MoEYS, 2017); (iii) and review textbooks to include new materials and new teaching methods (World Bank, 2018; Elmore, 2004; Fullan, 2007; MoEYS, 2017).

Learning and teaching process is key to the success of reform and involves: (i) the use of new teaching methods and strategies, such as active learning, the use of ICT for teaching and learning (Anson, 1994; Elmore, 2004; Fullan, 2007; MoEYS, 2017; UNESCO, 1989); (ii) providing teachers time, space, technologies and resources to learn, to teach, to innovate, to solve problems and to provide support to students (Anson, 1994; World Bank, 2018; Fullan, 2007) and (iii) creating a system of

collaboration and information sharing among teachers to develop new knowledge and skills and provide rewards based on performance (Anson, 1994; World Bank, 2018; MoEYS, 2017).

Jane David (in Anson, 1994) proposes to effectively harness the power of technology to promote school reform. Technology itself is not the answer to questions of reform, but can be a powerful part of the answer. ICT must be accessible, functional and be supported by proper training. For reform to succeed, teachers need special time to learn, to teach, to innovate, to learn new skills and ideas, to carry out admin work and to solve problems (Joseph Cambone cited in (Anson, 1994)). He stressed that reforms should not interfere with a teacher's time for teaching. Moreover, teachers should integrate reform into their individual teaching context.

Student assessment and inspection requires: (i) creation of assessment framework and inspection system (World Bank, 2018; MoEYS, 2017); (ii) alignment of curriculum contents and achievement standards with assessment procedures to create an accountability system for monitoring the efficiency and effectively (World Bank, 2018; Hoy & Miskel, 2008; MoEYS, 2017); and use of the results of the assessment for improving policies and the teaching and learning process, including the introduction of active learning methods (World Bank, 2018; Fullan, 2007; MoEYS, 2017).

Therefore, we can summarize the administrative and general management reform as consisting of: (i) Education curriculum and textbooks; (ii) Learning and teaching process; and (iii) Student assessment and school inspection.

2.1.11.3 Education Financial Management Reform

Education Financial Management Reform involves increasing financial allocations linking budget to education policies, financial autonomy and accountability of schools and conduct of education budget audit. A government may choose to restructure its expenditures to reallocate from higher education to lower levels of education (Tiongson, 2005). Financing reform may also include a transfer of budget resources directly from the National Treasury to schools or to improve financial procedures and governance to require better learning outcomes.

Increasing financial allocations linking budget to education policies involves: (i) the use of Education Strategic Plan to allocate financial resources by sub-sectors of education (World Bank, 2018; MoEYS, 2017; UNESCO, 1989); (ii) introduction of Result-based management (World Bank, 2018; MoEYS, 2017); and (3) strengthening the monitoring and evaluation mechanism, which link school inputs to output, outcome and impact indicators (World Bank, 2018; MoEYS, 2017; UNESCO, 1989).

Financial autonomy and accountability of schools involves: (i) school directors have flexibility in using financial resources to ensure the basic conditions for learning, from providing school infrastructure to increasing spending on teaching and learning (World Bank, 2018; Bruns et al., 2011; Elmore, 2004; Hoy & Miskel, 2008); (ii) building internal accountability (individual responsibility, collective expectations and accountability data are linked) linked to external accountability (external assessment and inspection) (World Bank, 2018; Bruns et al., 2011); (iii) parents and community holding school directors and teachers accountable for learning outcomes (Bruns et al., 2011; MoEYS, 2017; UNESCO, 1989).

The conduct of education budget audit consists of: (i) adoption and implement Guidelines on School Improvement Funds (SIF) to link school inputs to outputs and outcome indicators (MoEYS, 2017); (ii) traning on school financial management to school administrators and education officials at all level (MoEYS, 2017); and (iii) development and implementation of an Action Plan on school budget audit to encourage school to allocate more financial and human resources to achieve better learning outcomes (World Bank, 2018; MoEYS, 2017).

Therefore, we can summarize the financial management reform as consisting of: (i) Education financial allocation linking budget to education policies; (ii) Financial autonomy and accountability of schools; and (iii) Education budget audit.

2.1.11.4 Human Resource Management Reform

Human Resource Management Reform requires the coordination between professional teacher training at the national level with the human resource development at the school level. The ultimate objective is to ensure improvement in student skills. Systemic reform requires not just support infrastructure, but also capacity building at

all levels, especially at school levels (Levin, 2010). It also requires coordination with all stakeholders. Comprehensive, systemic reform requires reconfiguring both human and material resources, thus it must embrace deeper visions, bolders proposals, and sustained innovations (Kurth-Schai & Green, 2008). P. Glewwe (2014), summarizing the findings from 79 studies for teacher and principal characteristics, considers that the level of preservice teacher education (PRESET), teacher knowledge, in-service teacher training (INSET), years of experience and teacher performance appear to have a strong positive impact on student learning. The Education T. E. Commission (2016) confirmed that educational reforms must put educators and students at the centre of the reform programs. Reform measures should foster intrinsic motivation and capacity enhancement of all stakeholders. Therefore, human resource management reform consists of increasing pre-service (PRESET) teacher qualifications, provision of in-service (INSET) teacher training and the conduct of teacher performance assessment.

Increasing PRESET teacher qualifications requires the following actions: (i) attracting competent persons into teaching profession by providing better financial and social benefits, diversifying entry points and reviewing conditions for the selection of teachers and school principals (World Bank, 2018; Elmore, 2004; P. Glewwe, 2014; MoEYS, 2017; UNESCO, 1989); (ii) improving preservice training by reviewing teacher training curriculum, increasing preservice teacher qualifications from 12+2 to 12+4 for primary and lower secondary school teachers and upgrading teacher trainers' qualifications (World Bank, 2018; P. Glewwe, 2014; MoEYS, 2017); and strengthening teacher management by integrating all data sources into a single Human Resource Information System, improving deployment policies and involving parents and community to participate in decision making over teachers and school matters (Bruns et al., 2011; MoEYS, 2017).

The provision of in-service (INSET) teacher training involves: (i) adoption and implementation of the Policy on Continuous Professional Development (CPD) by incorporating on-site, irregular and regular training into a comprehensive inservice system (World Bank, 2018; Elmore, 2004; Fullan, 2007; P. Glewwe, 2014; MoEYS, 2017); (ii) cultivation of a culture of life-long learning and sharing the experience and provide inservice training to existing teachers on new teaching methods and mentoring

programs to improve education outcomes (World Bank, 2018; Elmore, 2004; Fullan, 2007; P. Glewwe, 2014; MoEYS, 2017); and (iii) promotion of collaboration, use of effective practice, coaching and expert support for inservice teachers, including the establishment of Professional Learning Communities (PLCs) (World Bank, 2018; Bruns et al., 2011; Elmore, 2004; Fullan, 2007; P. Glewwe, 2014; MoEYS, 2017).

The conduct of teacher performance assessment consists of the following: (i) teachers are motivated and retained in the education system by providing incentives and awards, based on Teacher Professional Standards, providing professional development opportunities and implementation of the Teacher Career Pathway (TCP) (World Bank, 2018; Bruns et al., 2011; Fullan, 2007; MoEYS, 2017); (ii) strengthening school leadership, based on School Director Standards, sharing best practices through the Community of Practitioners (COP) and improving the recruitment, selection and training of school directors (World Bank, 2018; P. Glewwe, 2014; MoEYS, 2017); and (iii) strengthening teacher monitoring and evaluation systems by creating a monitoring and evaluation mechanism, improving on-site monitoring through inspection, the use performance assessment for promotion and sanctions, expanding the professional capacities of individual teachers and sharing best practices through a coherent professional learning community (PLC) (Anson, 1994; World Bank, 2018; Bruns et al., 2011; Fullan, 2007; MoEYS, 2017).

The research by Priscilla Wohlstetter, Roxane Smyer and Susan Albers Mohrman (Anson, 1994) found that education reform success was tied to more shared power among many participants, extensive training to take advantage of opportunities and a system of collaboration and information sharing. Collaboration is needed to promote interaction, support and intellectual growth.

From the above definitions, we can conclude that systemic education management reform cover activities that concern all aspect of education management reform, such as administrative and general management reform, academic management reform, financial management reform and human resource management reform (MoEYS, 2017).

Table 1 Characteristics of Education Management Reform

	Anson, 1994	Bruns et al., 2011	Elmore, 2004	Fullan, 2007	Glewwe et al., 2014	Hoy & Miskel, 2008	MoEYS, 2017	UNESCO, 1989	WB, 2018
1. Administrative & general management reform									
1.1 Education policy and Strategic Plan;			✓	✓		✓	✓	✓	✓
1.2 School-Based Management;		✓		✓		✓	✓	✓	
1.3 Community involvement in school	✓	✓		✓	✓		✓	✓	
2. Academic management reform									
2.1 Education curriculum and textbooks;			✓	✓			✓		✓
2.2 Learning and teaching process;	✓		✓	✓			✓	✓	✓
2.3 Student assessment and school inspection.				✓		✓	✓		✓
3. Financial management reform									
3.1 Education financial allocation linking budget to education policies;							✓	✓	✓
3.2 Financial autonomy and accountability of schools;		✓	✓			✓	✓	✓	✓
3.3 Education budget audit.							✓		✓
4. Human resources management reform									
4.1 Increase teacher PRESET qualifications;		✓	✓		✓		✓	✓	✓
4.2 Provide INSET training;		✓	✓	✓	✓		✓		✓
4.3 Conduct teacher performance assessment.	✓	✓		✓	✓		✓		✓

In short, a systemic education reform requires a strong systemic link between education policies at the ministerial level to teacher training institutions and ultimately to the schools and the classrooms.

2.2. The Concepts of Education Management Strategies

2.2.1 Needs Assessment Research

This research is a needs assessment research (J. W. Altschuld & Watkins, 2014; Kaufman, 2000; Suwimon Wongwanich, 2005), evaluating stakeholders' needs regarding desirable state of the education management reform. The output of this research is to develop strategies for education management reform to improve education quality in Cambodia.

2.2.1.1 Definition of Needs and Needs Assessment

Needs can be defined from an individual perspective like Maslow's Hierarchy of Needs, to the needs of the states, as defined by Plato and Aristotle (Watkins & Kavale, 2014). Kaufman (2000) defined need as a gap between current result and desired or required results. A need can also be considered as a measureable gap between two conditions – what currently is and what should be (J. W. Altschuld & Watkins, 2014).

The concept of needs assessment evolved in the mid-1960s as a direct offshoot of the social action legislation of the period (Stufflebeam, McCormick, Brinkerhoff, & Nelson, 1985). Needs assessment approach was used by Kaufman to identify and prioritize needs for U.S. educational reform in the 1970s (Kaufman, 1972 cited in J. W. Altschuld & Watkins, 2014). At that time, needs assessment was mainly used for setting program goals and funding requested for achieving those goals. Stufflebeam et al. (1985) pointed out that needs assessment was initially used for two reasons: (i) to improve planning; and (ii) to identify and diagnose problems and provide evaluation of the programs.

In the current 75 organization literature, needs assessment is included under the broader heading of program evaluation (Kaufman, 1972; Stufflebeam, 1977; Scriven & Roth, 1978 cited in Stufflebeam et al., 1985). Needs assessment and evaluation require

the same measurement and analysis techniques, such as identifying and ranking the importance of problems and examining the solutions. However, needs assessment tends to be used to identify the future-oriented goals, while evaluation focuses on the present state or the past achievement.

Suwimon Wongwanich (2005) has attempted to summarize different types and definitions of needs assessment proposed by different authors as follows: (1) Maslow (physiological needs, safety and security needs, love and belonging needs, esteem needs, self-actualization needs); (2) Stufflebeam (discrepancy view, democratic view, diagnostic view and analytic view); (3) Scriven (maintenance needs, incremental needs, performance needs and treatment needs); (4) Roth (preparatory-type needs, retrospective-type needs); (5) Moroney (normative needs, perceived needs, expressed needs and relative needs); (6) Gilmore and Campbell (actual needs/true needs and perceived needs/reported needs); (7) Kaufman (input needs, process needs, product needs, output needs, outcome needs, solution needs, Alpha needs, Beta needs, Gamma needs, Delta needs, Epsilon needs, Zeta needs); (8) Witkin (primary needs, secondary needs, tertiary needs, service receiver needs, service provider needs and resources/ solution needs); (9) White (met needs, unmet needs); (10) Rossi and Freeman (quantitative needs and qualitative needs; (11) Wongwanich (individual/personal needs, group needs, organizational needs, current needs and future needs). However, in our research study, we will focus on the classification of needs into current needs and future needs that can be used to identify the needs gaps for elaborating education management reform strategy for quality citizenship.

A needs assessment is a process of identifying gaps between current and desired results by setting them in priority order for resolution (Kaufman, 2000). This method was further developed and led to Kaufman's Organization Elements Model (OEM) that has been used for systemic assessment and planning. OEM constitutes a framework for linking three types of needs: gaps in results at the societal level (mega), organizational level (Macro), and individual/ team level (Micro) (Kaufman, 2000). By applying this methodology to educational reform, we can identify the discrepancies at the education sector (macro) level and then align them with those at the school (micro) level. This

alignment process can be regarded as the coordination between top-down and bottom-up educational reform policies.

Needs assessment can be used for goal setting, for planning (by using Context-Input-Product Evaluation (CIPP) framework and the Center for the Study of Evaluation (CSE) framework: (i) Needs assessment; (ii) Program planning; (iii) Formative evaluation; and (iv) Summative evaluation); and for planning and implementation (Kaufman's System approach) (Suwimon Wongwanich, 2005).

Needs assessment involves making judgments on the needs, set them in a prioritized order in order to guide us about what to do next (J. W. Altschuld & Watkins, 2014). For that reason, researchers tend to use the needs assessment techniques for planning purposes, rather than for evaluation, so that people can see 'the glass as half empty, not half full' (Altschuld considers that the gaps give a connotation of a negative viewpoint, focusing on the empty half of the glass).

2.2.1.2 Phases of Needs Assessment

Witkin, 1984 cited in J. W. Altschuld and Watkins (2014) proposed three phases of needs assessment (updated in Altschuld and Kumar, 2010): (i) Preassessment: a reconnaissance to see what the situation is about in order to find out whether there are needs; (ii) Assessment: this phase involves in-depth surveying, detailed exploration of the literature, collection of data and causal analysis of needs; and (iii) Postassessment: actions initiated to rectify needs, action plans are implemented and strategies proposed for evaluating needs assessment itself.

In the assessment literature, needs assessments are often integrated in strategic planning, using additional tools such as SWOT employed to help identify the desired state. Surveys have been designed for needs assessments to use dual- and triple-response scales to collect data on needs as gaps (Kaufman, Guerra-Lopez, Watkin & Leigh, 2008 cited in Altschuld, 2010; J. W. Altschuld & Watkins, 2014). J. W. Altschuld and Watkins (2014) added that causal analysis may be used to identify the gap that might lead to change and for which solution strategy has a high chance of success.

1) SWOT Analysis

Strategy formulation or strategic planning involves developing an organization's mission, objectives, strategies, and policies. It begins with situation analysis or SWOT analysis (Hunger & Wheelen, 2011).

A SWOT analysis is a self-assessment tool for management and for needs assessment. SWOT analysis enables an organization to know its own strengths, weaknesses, opportunities and threats in order to identify strategic issues to take action.

The results of external and internal environment assessments are used by the organization to minimize weaknesses and avoid threats, while using its own strengths to capitalize on opportunities. It is therefore useful for developing the strategy. SWOT analysis provides a framework for analyzing the internal and external environment. Environmental scanning is the monitoring, evaluating, and disseminating of information from the external and internal environments to key people within the organization (Hunger & Wheelen, 2011).

By analyzing the internal environment, such as organizational structure, policy, efficiency and effectiveness of organizations, personnel, financial performance, materials, management equipment, the organization can identify its own strengths and weaknesses. For instance, internal environment of a school comprises four aspects: administrative management, academic management, financial management and human resource management.

Table 2 SWOT Analysis

		Internal resources	
		Strengths	Weaknesses
Environment	Opportunities	Maximize	Remediate/ Ignore
	Threats	Deflect/ Reduce	Minimize

Source: (Fidler, 2002); (Siribanpitak, 2009)

This SWOT analysis proposes that a combination of an external opportunity and an internal strength represents a growth point. At the same time, an external threat and an internal weakness needs to be reduced. Where opportunities coincide with internal weaknesses, it may be worthwhile to seek to deal with the weaknesses or ignore the opportunity (Fidler, 2002).

Opportunities. In the opportunities block list the external opportunities available in the organization's current and future environment.

Threats. In the Threats (T) block, list the external threats facing the organization now and in the future.

Strengths. In the Strengths (S) block, list the current and future strengths for the organization.

Weaknesses. In the Weaknesses (W) block, list the current and future weaknesses for the organization.

The analysis of the external environment enables an organization to consider opportunities and threats. External environment scanning focuses on economic, technological, political and sociocultural forces. The analytical tool used for societal environment scanning focuses on the analysis for Political, Economic, Sociocultural, Technological, Ecological, and Legal forces or PESTEL analysis (Hunger & Wheelen, 2011):

Political factors: Political stability, bureauracy, regulation, competition, Education Law, Employment law, civil service status, healthcare protection etc.;

Economic factors: Economic growth, monetary policies, fiscal policies, government budget, education expenditure, salary policies etc.;

Socio-cultural factors: Education level, social structure of the population, lifestyles, religion and beliefs, population growth rate, age distribution and life expectancy, gender, family size, minorities etc.;

Technological factors: Infrastructure and facilities, access to the Internet, technological change, spending on R&D.

2) **TOWS Matrix Analysis**

The TOWS (SWOT backwards) Matrix helps an organization to identify its own external opportunities and threats and compare them with its own internal strengths and weaknesses. The objective of TOWS is to create four sets of possible strategic alternatives. It is used to develop strategies (Hunger & Wheelen, 2011).

Table 3 Twinning Issues by Metric Analysis (TOWS Matrix)

External Factors / Internal Factors	Strengths (S) List 5-10 internal strengths here	Weakness (W) List 5-10 internal weaknesses here
Opportunities (O) List 5-10 external opportunities here	SO Strategy Generate strategies here that uses strengths to take advantage of opportunities.	WO Strategy Generate strategies here that take advantage of opportunities by overcoming weaknesses
Threats (T) List 5-10 external threats here	ST Strategy Generate strategies here that use strengths to avoid threats	Strategy WT Generate strategies here that minimize weaknesses and avoid threats

Source: (Hunger & Wheelen, 2011); (Siribanpitak, 2009)

SO strategies (Strengths-opportunities): are developed by considering the ways an organization could choose to use its strengths to take advantage of opportunities. To protect the strengths, the organization will take advantage of external opportunities.

ST Strategies (Strengths-Threats): enable the organization to capitalize on its own strengths as a way to avoid threats. The threats come from competitors. The strengths relate to the current performance of the organization. This is how to focus on its own strengths to ward off competitors.

WO Strategies (Weaknesses-opportunities): take advantage of opportunities by overcoming weaknesses. An organization should explore external opportunities, such as budget increase or new policies to address its own weakness.

WT Strategies (Weaknesses-Threats): defensive strategies and are aimed to minimize weaknesses and avoid threats.

2.2.1.3 Methods and Techniques of Needs Assessment

McCawley (2009) proposed the following methods to conduct needs assessments: surveys, interviews, focus groups and working groups. This involves identifying the population, sampling of the research study, creating and conducting data collection instruments and the data analysis.

To improve the quality of education in Cambodia, the researcher intends to use Kaufman's quality management (QM) framework as part of the research procedure. Kaufman (2000) argues that QM is a process that can be used to ensure organizational success. They involve all organization members in delivering client satisfaction and quality. For each element in QM process, the gaps in current and desired results are identified in order to find the ways and means for meeting the needs. Kaufman (2000) suggests that a questionnaire based on dual-response format, with a rating scale, can be used to identify the current needs and the desired ones of an organization.

Suwimon Wongwanich (2005) proposed a five-stepped approach in needs assessment:

The study of the desired state: 'What should be' (such as a vision and Action Plan);

The study of the current state: 'What is' (the status of implementation);

The analysis of the gap between the desired and the current state/ needs (i.e., what is left to be implemented) by setting the priority order of results in order to identify needs assessment;

The evaluation of the reasons for the gaps and establish a ranking of the reasons by the priority order;

The study and the proposed solutions to be made from the needs assessment.

Needs assessment consists of different phases: Needs Identification (NI), Needs Prioritization (NP), Needs Analysis (NA), and Needs Solution (NS). Suwimon Wongwanich (2005) proposes that each phase of needs assessment corresponds with the use of different techniques for data collection and analysis. For needs identification, the researcher should use questionnaire, interview, observation, focus group technique, brainstorming, community forum and mean difference. Needs prioritization should focus on rank order, Priority Needs Index, Weighted Needs Index. Needs analysis requires the use of questionnaire, interview, observation, focus group technique, brainstorming, community forum and concept mapping. Needs solution involves focus group discussion, brainstorming, public hearings, cross impact analysis and cross-

consequences analysis. These techniques will be used by the researcher in the research procedure.

2.2.1.4 The Practical Use of Needs Assessment

At the practical level, a needs assessment has been widely used by different researchers to develop a model of disease prevention and control of Local Administration Organization (LAO) Network, to improve the management of an education institution, to establish a dual-system school management model for the Kingdom of Cambodia (Pech, Siribanpitak, & Sumettikoon, 2015), to prioritize needs for health care services for older adults, to identify stakeholders needs regarding desirable characteristics of graduates of Royal Thai Navy College of Nursing, to develop instructional ability of teacher students majoring in Early Childhood Education, to develop programs for enhancing creative leadership among school administrators in local government organization in Thailand, to design simulation for assessing people skills and competencies of school leaders in Thailand and to develop branding programs in Thailand's higher education.

2.2.2 The Concept and Theory of Strategy Development

2.2.2.1 Concepts of Management Strategy

Strategic management started to dominate education scholarship in the 1990s after the United Kingdom passed the Education Reform Act in 1988, requiring schools to have a development plan (Fidler, 1989 cited in Eacott, 2011). The most prominent scholarship of strategic management were: (Drucker, 1994, 2008), Mintzberg (1989), (Kaplan & Norton, 1996, 2004), (Alec Hargreaves, 1995; D. H. Hargreaves, 2010), Fidler (2002), Eacott (2008), Fullan (2007) and Porter (1998). The researcher uses the research studies by these prominent scholars to establish a theoretical framework to guide our strategy development to enhance quality citizenship in Cambodia.

Strategy is a multi-dimensional and mixed concept. Therefore, there are different definitions of a strategy. Drucker (2008) defines strategy as the answers to the questions, "What is our business? What should it be? What it will be? A Strategy defines both what to include within the work of an organization and what to exclude (Drucker, 1994). Kaplan and Norton (1996) considers that a strategy is a set of

hypotheses about cause and effect. In this regard, a strategy consists of statements expressed in cause-and-effect relationships on how to translate an organization's vision into concrete outcomes. Similarly, a strategy can also be viewed from the perspective of how an organization plans to create values for its stakeholders, customers, and citizens (Kaplan & Norton, 2004).

Johnson and Scholes, 1999 cited in Fidler (2002) defines 'strategy as the direction and scope of an organization over the long term which achieves advantage for the organization through its configuration of resources within a changing environment, to meet the needs of markets and to fulfil stakeholder expectations.'

Quinn, 1980 cited in Fidler (2002) considers strategy as 'the pattern or plan that integrates an organization's major goals, policies, and action sequences into a cohesive whole.'

Jenkins, Ambrosini, and Collier (2007) states that the strategy can be considered as an agenda, i.e. a series of fundamental questions and problems that are related to organizations and their successful development.

Siribanpitak (2009) defines strategy as a method to reach goals. One strategy consists of many tactics. Thus, strategy is a group of tactics. Hunger and Wheelen (2011) also concurred with this definition by stating that a tactic is a specific plan, describing how a strategy should be implemented in terms of when and where it is to be put into action. Thus, strategies are broader in their scope and longer in their time horizon than are tactics.

Mintzberg (1989) provides a more comprehensive definitions of strategy, as a plan, a ploy, a pattern, a position and a perspective.

Strategy as Plan – Strategy is aimed to establish direction for organizations, to set them on predetermined courses of action. As plan, a strategy can be a ploy or a specific "maneuver" intended to outwit an opponent or competitor.

Strategy as Pattern – Strategy is a pattern in a stream of actions, reflecting consistency in behavior. As pattern, strategy focusses on action and means of conceiving and describing the direction pursued by organizations.

Strategy as Position – Strategy is a position-specifically, a means of locating an organization or an environment. In this sense, strategy becomes the mediating force between organization and environment, between the internal and the external context.

Strategy as Perspective – Strategy's content consists not just of a chosen position, but of an ingrained way of perceiving the world.

According to Fidler (2002) strategy takes account of: long-term intentions and aspirations; the external environment (both now and future predictions); the internal strengths of an 84rganization; the prevailing 84rganization84l culture; expectations of stakeholders; and likely future resources.

Fidler (2002) states that strategy includes both a strategic aim and the means of achieving that aim. It is the destination and the route map to get there. Applying the concept of strategy to school, Fidler (2002) associates strategy with a strategic change. He proposes a checklist to decide the strategic change, which concerns with: (1) The whole scope of a school's activities; (2) the school's long-term direction; (3) matching its direction to environmental pressure; (4) devising activities which are sustainable. At the school level, a strategy includes: (1) long-term intentions and aspiration; (2) the external environment (now and future); (3) internal strengths of an organization; (4) the prevailing organization culture; (5) expectations of stakeholders; (6) future resources (Fidler, 2002).

Thus, in management the concept of strategy has been used to mean anything from a course of action, a positioning in a particular environment, a plan or a perspective of an organization. Strategy is the way to make the organization succeed or to compete. Each definition adds important elements to the understanding of strategy and encourages an organization to address fundamental questions concerning that organization in general.

2.2.2.2 Strategy Levels

There are different levels of strategies, such as national strategy, sectoral or industry strategy, corporate strategy, business strategy, functional strategy and tactics.

1. National strategy

Porter (1998)'s book, The Competitive Advantage of Nations, offered a new paradigm of national strategy, called a new theory of national competitive advantage. Porter's national strategy focused on a paradigm of competitive nation, possessing competitive advantage relative to the best worldwide competitor. This strategy includes the following: (i) Competitive advantage is created and sustained through a highly localized process: firms, industries and the home nation have become crucial, as they are the source of the skills and technology that support the competitive advantage; (ii) Successful international competitors often compete with global strategies, in which trade and foreign investment are integrated; (iii) Firms play a central role in creating competitive advantage.

2. Sectoral or industry strategy

The sector or the industry is the arena of competition. To succeed, firms must develop competitive strategies, specific to particular industry and to the skills and assets. A competitive strategy is based on two conditions: industry structure in which the firm compete and its positioning within an industry. Successful firms must influence their environment. The competition is determined by five competitive forces: (1) the threat of new entrants; (2) the threat of substitute products or services; (3) the bargaining power of suppliers; (4) the bargaining power of buyers; and (5) the rivalry among the existing competitors (Porter, 1998). In the public sector, sectoral strategies have been developed to address the challenges and create opportunities for the sectors involved, such as Education Strategic Plan. It is usually a five-year plan with rolling indicators.

At the corporate level, there are three types of strategy: corporate, business, and functional (Hunger & Wheelen, 2011).

3. Corporate strategy

Corporate strategy describes a company's overall direction in terms of its general attitude toward growth and the management of its various businesses and product lines. Corporate strategy is composed of directional strategy, portfolio analysis, and parenting strategy. Corporate directional strategy is conceptualized in terms of stability, growth, and retrenchment.

4. Business strategy

Business strategy usually occurs at the business unit or product level, and it emphasizes improvement of the competitive position of a corporation's products or services in the specific industry or market segment served by that business unit. Business strategies are composed of competitive and cooperative strategies. Business strategy focuses on improving the competitive position of a company's or business unit's products or services within the specific industry or market segment that the company or business unit serves.

Hunger and Wheelen (2011) divides business strategy into competitive (fighting against all competitors for advantage) and cooperative (working with one or more competitors to gain advantage against other competitors) or both.

5. Functional strategy

Functional strategy is the approach taken by a functional area, such as marketing or research and development, to achieve corporate and business unit objectives and strategies by maximizing resource productivity. It is concerned with developing and nurturing a distinctive competence to provide a company or business unit with a competitive advantage.

6. Operational strategy

Siribanpitak (2009) considers that operational strategy consists of control strategy, on-time production strategy and flexible production system strategy.

2.2.2.3 Procedure of Strategic Management

2.2.2.3.1. Definition and Concept of Strategic Management.

Strategic management evolved from strategic planning, which was widely used in the 1960s by big corporations such as General Electric and the Boston Consulting Group (Mintzberg, 1989). Many models of strategic management were created from market analysis in the 1960s, including the BCG Matrix, SWOT Model, the Experience Curve, and Portfolio Analysis. It was later on introduced for educational management.

Fidler (2002) distinguished strategic planning from strategic management. He defines strategic planning as processes involved in formulating a strategic plan. This is

a plan to operationalize strategy or put strategy into practice. It is the planning component of strategic management. Strategic management is the process of planning and implementing strategy. It involves strategic analysis, strategic choice and strategic implementation (Fidler, 2002).

Mintzberg (1989) considers strategic management as a process involving the achievement of calculation to present the consequences of strategies, in terms of budget and programs and action plans.

Hunger and Wheelen (2011) define strategic management as a set of managerial decisions and actions that determines the long-run performance of a corporation. It includes environmental scanning (both external and internal), strategy formulation (strategic planning), strategy implementation, and evaluation and control. Strategic management emphasizes the evaluation of external opportunities and threats in light of an organization's strengths and weaknesses in order to identify a new strategic direction.

Strategic management has been used to help the organization operate successfully in a dynamic, complex environment. Strategic planning is a tool to drive organizational change. Strategic management is moving above functional and operational areas and grasping the overall picture. It involves asking three key strategic questions: (1) Where is the organization now? (2) If no changes are made, where will the organization be in one to ten years? (3) What specific actions should management undertake? Strategic management has been later on been used in education.

Educational managers can make use of different techniques employed by business leaders to implement strategic management in education. There are different tools of strategic management.

Kaplan and Norton (2004) set a framework of strategic management system, using the strategy map and balanced scorecard (BSC), to manage an organization's strategy over the long term. It consists of the following steps: (1) Clarify and translate vision and strategy; (2) Communicate and link strategic objectives and measures; (3) Plan, set targets, and align strategic initiatives; and (4) Enhance strategic feedback and learning.

2.2.2.3.2. Strategy Map

Each organization considers its strategy from different perspectives: by financial plans for revenue and profit growth, by products or services, by targeted customers, from a quality and process perspective or from a human resource or learning angle. Therefore, there is a need for a holistic framework for an organizational strategy. Kaplan and Norton (2004) proposed a comprehensive framework for strategic management, such as strategy map, balanced scorecard, objectives, targets and action programs. The Strategy Map provide a checklist for components and inter-relationships of a strategy. The art of the strategy is to identify a few most important processes that are critical in creating customer value. The strategy map underlines the logic of the strategy by describing the objectives to create value.

2.2.2.3.3. Balanced Scorecard

The BSC translates an organization's mission and strategy into tangible objectives and measures. It consists of four simple models of value creation that can be adapted to public sector organization. We can use BSC measures to Educational Management Reform Strategy by using: (i) Cause-and-effect relationships; (ii) Performance drivers (large indicators); and (iii) Linkage to financials (Kaplan & Norton, 1996).

Stakeholder Perspective: To achieve our vision, how must we satisfy parents and students?

Internal Perspective: To satisfy the parents, students, the government and financial donors, which improvement we should make to the education services?

Fiduciary Perspective: If we succeed, how will we increase and better use the financial resources?

Learning and Growth Perspective: To archive our vision, how must our organization learn and improve? This component consists of human capital, information capital and organization capital, such as leadership and teamwork.

The BSC framework can be adjusted and adapted to educational management as follows:
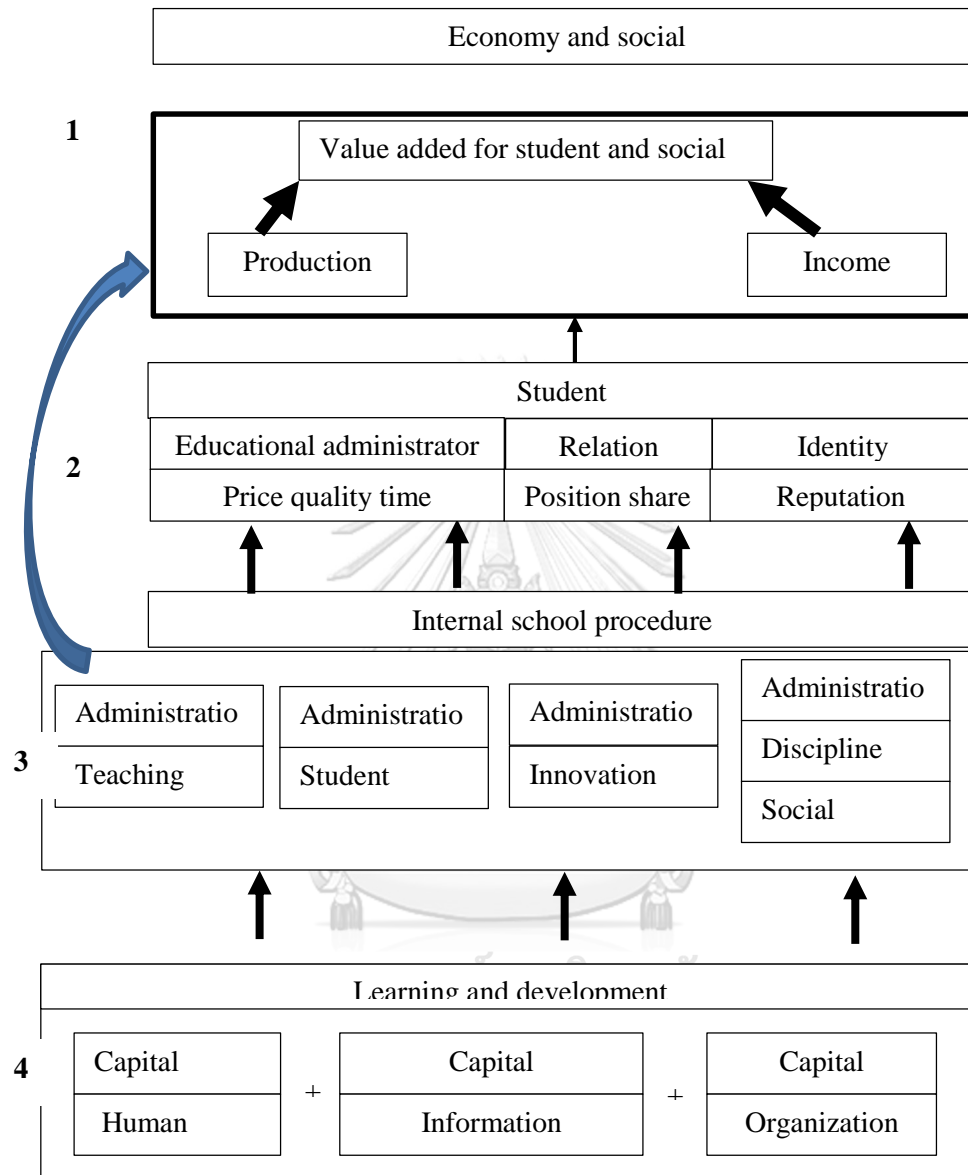
Figure 4 Educational Strategic Management (Siribanpitak, 2009)

(1) Objectives – Objectives are the end results of planned activity. They state what is to be accomplished by when and should be quantified if possible. The strategic objectives should be linked to long-term targets and annual budgets.

(2) Target – Target is an open-ended statement of what one wishes to by quantifying the long-term outcomes, showing the means and setting short-term milestones of measures for achieving those outcomes.

(3) Action Programs – The action plans provide resources to implement strategic initiatives, that are regrouped around strategic themes in the form of integrated investment projects.

2.2.2.3.4. Elements of Strategic Management Process

Hunger and Wheelen (2011)'s model of elements of strategic management, consisting of four basic elements, can be used for strategic management in the education sector:

(1) Environmental scanning - is the monitoring, evaluating, and disseminating of information from the external and internal environments to key people within the corporation.

(2) Strategy formulation - is the development of long-range plans for the effective management of environmental opportunities and threats, in light of corporate strengths and weaknesses. It includes defining the corporate mission, specifying achievable objectives, developing strategies, and setting policy guidelines. A mission is the purpose, or the reason for existence of an organization. It tells what the organization is providing to society, such as housecleaning or manufacturing automobiles. A well-conceived mission statement defines the fundamental, unique purpose that sets a company apart from other firms of its type and identifies the scope of the company's operations in terms of products (including services) offered and markets served.

(3) Strategy implementation - is the process by which strategies and policies are put into action through the development of programs, budgets, and procedures. Sometimes referred to as operational planning, strategy implementation often involves day-to-day decisions in resource allocation.

(4) Evaluation and control - A program is a statement of the activities or steps needed to accomplish a single-use plan. It makes the strategy action oriented. It may involve restructuring the corporation, changing the company's internal culture, or beginning a new research effort.

Figure 4 shows how these four elements interact. Management scans both the external environment for opportunities and threats and the internal environment for strengths and weaknesses.

Environment al Scanning	→	Strategy formulation	→	Strategy Implementation	→	Evaluation and Control
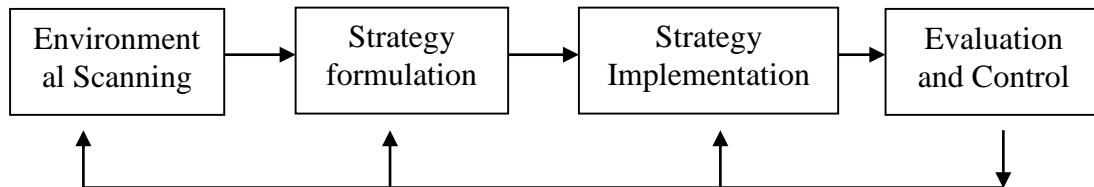
Figure 5: Basic Elements of the Strategic Management Process (Hunger & Wheelen, 2011)

2.2.2.3.5. Strategic Management in Education

Strategic management has become increasingly important in education, as schools became 'self-managing'. Strategic management, therefore, can lead to school development. By engaging strategic management, school leaders are required to develop strategy, conduct strategic analysis, identify vision and strategic choice, and ensure implementation and monitoring of a strategic plan and sub-plans (Fidler, 2002).

Siribanpitak (2009) suggests that strategic management, was initially used in army and business before civil service and education do, consists of 4 components:

(1) Situation analysis;

(2) Strategic planning or strategic definition;

(3) Operation following strategy;

(4) Strategic control and assessment.

Fidler (2002) offers a conceptual model of strategic management, which consists of three stages:

Strategic analysis: Take stock of the present situation and analyses future of external factors that might affect the organization. This phase is divided into: (1) internal resource audit: taking into account school building, staff, finance and reputation. It can be done by assessing organizational performance, using survey techniques; (2) environmental scanning: Deriving from the systems theory of organization, an organization is surrounded by a boundary. Outside that boundary lies

the environment. This include socio-technical trends, called PESTE (political, economic, social, technological and educational). The results of environmental scanning will be summarized in a SWOT analysis; and (3) analyzing cultures and values.

Strategic choice: Take stock of the present situation and analyses future of external factors that might affect the organization. This phase involves choosing the best strategies by finding many choices and comparing them with the short-term, medium-term and long-term effects and the feasibility of a strategic plan. The chosen strategy can be adjusted as appropriate.

Strategic implementation and chance: Take stock of the present situation and analyse future of external factors that might affect the organization. It must take into account the three key components involved: (1) Improve organizational structure and system to support the implementation of the strategic plan; (2) Develop human resources to acquire new skills; (3) Adjusted resources to meet the plan.

2.2.2.3.6. Steps of Strategic Management
1) The Six-Stage Management System

Kaplan and Norton (2008) proposed a six-stage management system by incorporating the Balanced Scorecard, theme-based strategy maps, and the five Strategy-Focused Organization principles and practices.

Stage 1: Develop the strategy using mission, values, and vision statements, external competitive, economic, and environmental analyses; methodologies such as Michael Porter's five forces and competitive position framework, the resource-based view of strategy, and blue ocean strategies, as well as scenario planning and dynamic simulations.
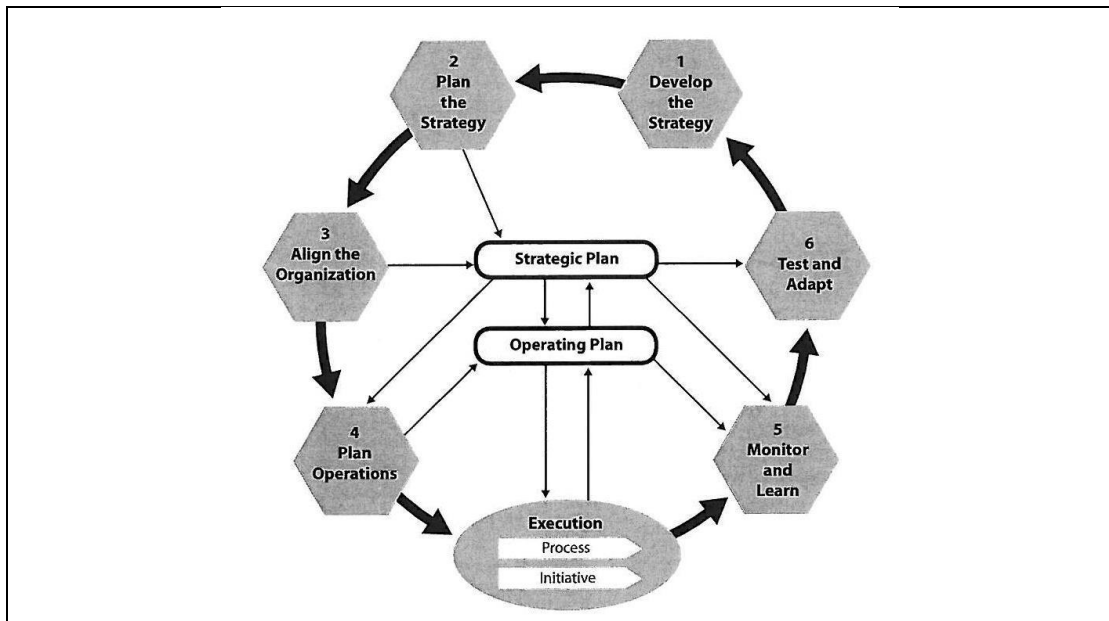
Figure 6 A Closed-Loop Management System (Kaplan & Norton, 2008)

- The manager affirms the mission, values and vision of an organization;

- The manager carries out analysis of the environment, reflecting the changes, employing inputs from three sources: external environment analysis (PESTEL analysis – political, economic, social, technological, environmental, and legal or regulatory factors); the internal environment (the state of human capital, operations, innovation, and technology); and the progress of existing strategy (from BSC metrics);

- The environmental assessment is incorporated in a SWOT table, showing strategic issues to be solved by the strategy;

- The strategic change agenda will be developed and communicated to the organization;

- The manager develops a strategy, focusing on niches areas, customer value proposition, key processes, direction in human capital and technology.

    Stage 2: Plan the strategy using strategy maps, BSC, targets and strategic initiatives.

- A strategy consists of different dimensions of organizational change, from short-term improvement to long-term innovation;

- A strategy map is established to incorporate all strategic dimensions;

- Related objectives are bundled into four to six strategic themes to enable the manager to plan and manage each key parts of the themes. Themes span across functional lines and administrative units, making it easier to implement;

- Objectives are translated into a BSC of measures, targets, and gaps;

- Strategic initiatives, consisting of action programs of finite duration to achieve the targets, are selected for the strategy map objectives;

- Strategic initiatives are costed and budget resources are allocated across functions to all units;

- A special team or a new accountability structure will be established to implement the strategy.

Stage 3: Align the organization with the strategy by cascading strategy maps and BSC to all organizational units and linking employees' objectives and incentives to strategic objectives.

- Strategies are developed at an individual business or organization unit level;

- Strategies at individual unit level are integrated to provide synergies with the corporate strategy, which is detailed in a strategy map;

- Business unit strategies are cascaded to business units;

- Strategy is communicated to the employees by aligning employees' personal objectives and incentives with business unit and organizational strategic objectives.

Stage 4: Plan operations using quality and process management, reengineering, process dashboards, rolling forecasts, activity-based costing, resource capacity planning, and dynamic budgeting.

- Strategic themes are created to reflect key process improvements that are the most critical for implementing the strategy;

- Special attention must be given to those processes that are related to strategic objectives;

- The process improvement plans and the BSC's high-level strategic measures and targets are translated into an annual operating plan;

- Budget resources are identified for the operating plan.

Stage 5: Monitor and learn about problems, obstacles and challenges by integrating information about operations and strategy into management review meetings.

Strategy implementation started after the strategy was planned and linked to the annual operational plan;

- Strategy review meetings are organized to discuss the indicators and initiatives from the units' BSC to assess the progress and barriers to reform;

- Short-term performance is studied in order to study on how to respond to newly identified problems.
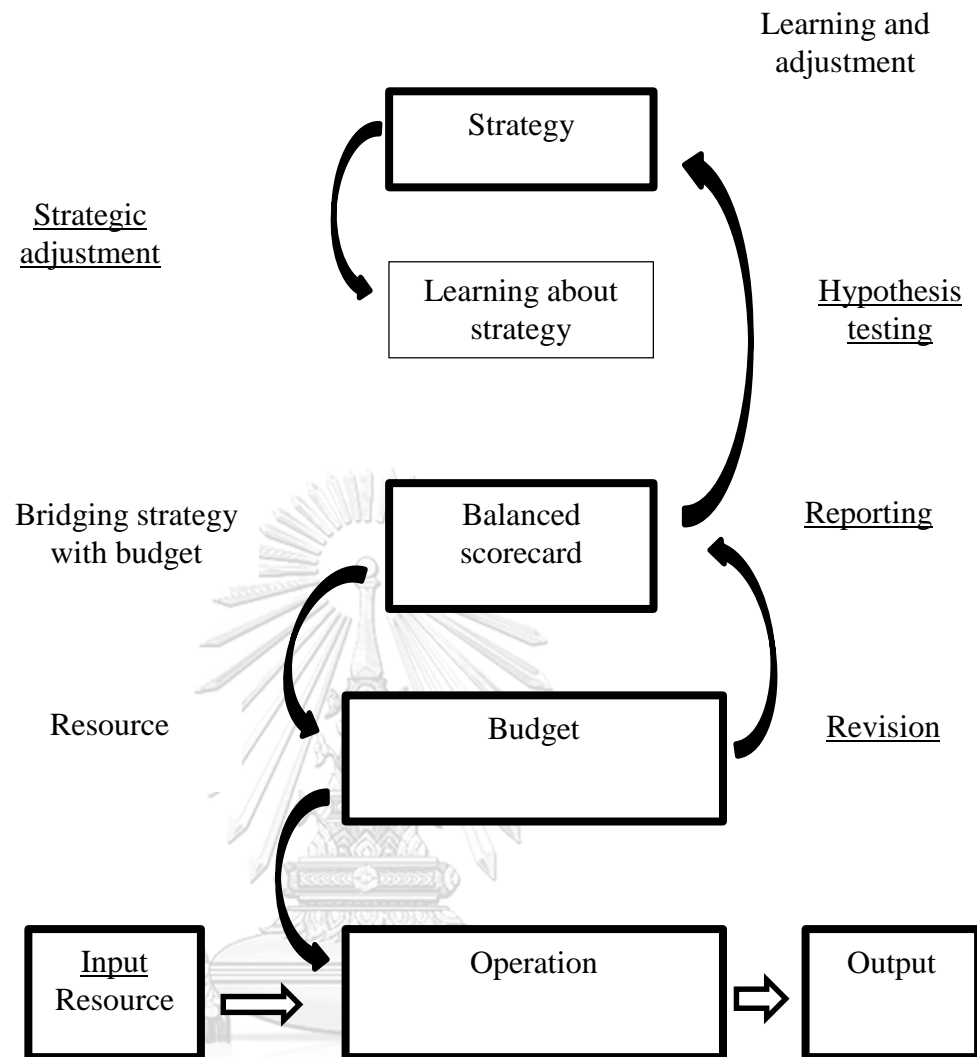
Figure 7: Strategy Development Using BSC (Siribanpitak, 2008)

Stage 6: Test and adapt the strategy using internal operational data and new external environment and launch a new phase of strategy planning.

- Strategy will be tested and adapted to assess performance and to consider the recent change in regional geo-politics.

2) Strategic Management and Leadership in Education

Reviewing education scholarship on school management and leadership, Eacott (2011) considers that research on strategy in education has shifted from the concept of strategy as a unit analysis of a plan or a planning process to strategic leadership in education.

Leadership is defined as processes in which leaders influence followers to cooperate and achieve shared objectives (Hoy & Miskel, 2008). School leadership plays a key role in improving school outcomes by influencing the motivations and capacities of teachers, as well as the school climate and environment (Pont, Deborah, & Hunter, 2008). Therefore, effective education leadership leads to improvement in learning.

D. Hargreaves (2011) contend that teaching and leading should go hand in hand and school leadership enables capacity to be built between schools. Outstanding school leaders, who were engaged in self-management and self-improvement, have often assisted other schools at the same time as becoming the entrepreneurial leaders of clusters of schools. This type of leadership in education is called system leader, a word coined by Fullan (2007). D. Hargreaves (2011) identifies three major components of system leadership: (1) A value: leaders should strive for the success of all schools and their students; (2) A disposition to action: a commitment to work with other schools to help them to become successful; and (3) a frame of reference: understanding one's role (as a person or institution) as a servant leader for the greater benefit of the education service as a whole. To promote school leaders, policy makers provide autonomy to schools to make important decisions (Pont et al., 2008).

Pont et al. (2008) identify four major domains of leadership responsibilities: (1) Supporting, evaluating and developing teacher quality; (2) Goal-setting, assessment and accountability; (3) Strategic financial and human resource management: School leaders should be trained to be a financial manager and be able to influence teacher recruitment decisions to improve the match between candidates and their school's needs; (4) Collaborating with other schools.

Increased responsibilities and accountability of school leadership has led to the distribution of leadership. While the school leaders enjoy increasing autonomy and accountability, there is a need to distribute the leadership to middle management in school and the school board. To ensure effective leadership, School boards will also get many new tasks. Middle-management is also crucial for effective school leadership (Pont et al., 2008). This model has been introduced in Cambodia under the framework of a New Generation School model (Hang-Chuon, 2016a).

2.2.4. Development of Organizational Strategy

Drucker (2008), proposes a three-step approach to develop a strategy:

Firstly, identification of the desired results is the starting point for an organization.

Secondly, after having the strategy, the next step is to design the building blocks of the organization to achieve the desired results. Structure must be developed from goals and objectives of an organization.

Thirdly, the organizational design related to the key activities must follow the strategy. To identify key activities, we must look at both the area of excellence to achieve the goals and to look at the area of non-performance that could endanger the desired results (Drucker, 2008).

Mintzberg (1989), studied how strategies are developed from real life experiences. The example of a strategy formulated by a Canadian supermarket Steinberg will be used to illustrate the steps required for strategy development. One of the tasks of the manager or the leader is to determine the strategy of the organization or supervise the development of its strategy. It provides the main direction or the strategic change of the organization. Strategy development consists of the following steps:

Step 1: Visionary Leadership. Strategy is a vision, born from profound knowledge of the issues involved, articulated in words and in creative actions (Mintzberg, 1989). Visionary leadership and strategy should be inter-twined together to become the goals of the organization. This ambitious vision was developed from the problems or crisis facing the organization. The management determines the direction of the organization in terms of vision, mission, objectives and long-term goals to be used to guide the operations.

Step 2: Strategy Development to Turn Crisis into Opportunities. The role of the manager is to propose actions to solve the problems identified in order to turn the crisis into opportunities. After analysing available data and conducting environment analysis, the strategy will be developed to address the problems. To this end, the manager must set direction for the organization.

Step 3: Trying Out the Strategy. The strategy is determined by the basic characteristics of each organization. However, to make sure that the strategic change works, the strategy must be tried out in a small scale to test its validity and reliability. For that reason, the strategy will be tested in a smaller scale by implementing the strategy in a small unit.

Step 4: Reformulation of the Strategy. The manager will be able to learn and to reformulate the strategy to meet the needs of the organization. The strategy should be clear and complete. The reformulation of the strategy is the synthesis of the measures and actions, aimed at solving the problems facing the organization.

Step 5: Implementation of the Strategy. Implementation is a systematic work. Implementation of the strategy to achieve the desired goals is the most important phase. The strategies failed to achieve the desired goals, because of problems in implementation.

Step 6: Strategic assessment. Monitoring and evaluation is critical for strategy development. Information received from this phase will be used to develop new strategies.

2.3 The Link between Education Management Reform and the Quality Citizenship

2.3.1 The Concepts of Quality Citizenship

The concept of citizenship is a contested notion (Tawil, 2013). There are multiple definitions of citizenship in professional literature. Citizenship is a complex, multi-dimensional and dynamic concept. For that reason, there is no single definition of quality citizenship. Conceptually, quality citizenship is elusive. Citizenship can be can be equated with a sense of belonging to a community. However, in the literature there are plenty of attributes of what can be considered as quality citizenship. Therefore, quality citizenship can only be defined by using a set of criteria.

Historically, citizenship did not include all people, but only men or property owners (UNESCO, 2014). It evolved gradually to include membership of an individual to a political community within the boundary of a country (Tawil, 2013). The notion of

citizenship, influenced by expansion of the political and civic rights, has been further developed to focus on the legal dimensions, covering rights and entitlements, as well as duties and responsibilities of a citizen in the nation-state (Davies, 2006 cited in Lynch, 1992; Tawil, 2013).

Influenced by globalization, which creates new economic, social and cultural arenas beyond national borders, the concept of citizenship has transcended the boundary of a nation-state. Citizens in the nation-state may develop a sense of belonging to a global community through identification with the humanistic values, such as human rights, respect for human dignity, social justice, and international solidarity. In the 1990s, Falk, 1994 cited in Tawil (2013) proposed a notion of 'global citizens' which included transnational and global activists. This restrictive definition has recently been expanded to include every human being as a potential global citizen 'by virtue of living on planet earth' (Mayer & Sandy, 2009 cited in Tawil, 2013).

One of the objectives of education in Cambodia is to educate learners to become good citizen. Basic civic education is dispensed from Grade 1 to 6 by using the textbooks "Science and Social Studies". From Grade 9 to Grade 12, civic and good citizenship education are taught by using the textbooks of "Social Sciences" and "Civic and Good Citizenship Education". Good citizenship education in Cambodia can be analyzed and synthetized to focus on the following aspects: (i) Shared values and common humanity: such as human values, love, compassion, truthfulness, forgiveness, integrity, non-violence; (ii) Civic rights and responsibilities: such as commitment to freedom, democracy and human rights including the rights of the child, respect for others; (iii) Social and community engagement: such as community development, solidarity, transparency, gender promotion, respect for religious freedom and diversity, the culture of peace, protection of ethnic minorities; and (iv) Political citizenship activities: understanding political and legal systems, the rule of law, the electoral process, political parties.

With global challenges on the rise, education has been viewed as the way to solve many issues facing humanity. Therefore, national education systems have fundamental role of forming citizenship and strengthening of national cohesion. In response to these challenges, UNESCO initiated education for international

understanding, cooperation and peace freedoms (UNESCO, 1974). In the 1990s, UNESCO came up with the initiative of education for peace, human rights and democracy (UNESCO, 1995). Later on the thrust of Delors' Report related to education for learning to live together, learning to be, learning to know and learning to do has become the pillars of UNESCO's educational framework (Delors, 1996).

The beginning of the 21st century, characterized by galloping globalization, has been plagued with major challenges, such as global terrorism, global financial crisis, climate change, conflict, poverty, hunger, and the issues of equity and sustainability etc. Within this context, the concept of quality citizenship has further expanded and incorporated the global aspects, as well as the many dimensions of education, such as knowledge skills, attitude and engagement.

Siribanpitak (2008) considers that education has two roles: (i) reproduce certain aspects of the current society; and (ii) prepare students to transform the society for the future. Education should help students to determine what is best to conserve in their cultural, economic and natural heritage and to nurture values and strategies for attaining sustainability in their local communities while contributing, at the same time, to national and global goals. Thus, education must be transformative to promote shared values, relevant to solve today's problems (Ban, 2012).

2.3.2 Components of quality citizenship

The above definition is the most comprehensive and, therefore, can be used in our conceptual framework to develop strategy for education management reform for enhancing the quality citizenship in Cambodia. The concept of quality citizenship represents a dialectic relationship between the internal aspect – good national citizenship – and the external role of a citizen, i.e. good global citizenship.

In this research, the concept of quality citizenship consists of the following:

2.3.2.1 The Quality of National Citizen

1) knowledge and hard skills

The concept of quality citizenship derives from the philosophy of education. Socrates argues that the freedom to teach and learn is crucial to gain knowledge and

improve society (Nelson et al., 2012). Plato considers that 'a society is stably organized when each individual is doing that for which he has aptitude by nature in such a way as to be useful to others… and that it is the business of education to discover these aptitudes and progressively to train them for social use' (Dewey, 2004). It means that education's role is to train people to have knowledge and technical skills in order to become useful to the society.

Indeed, the aims of education are to develop a well-rounded person and engaged human being. Overall, acquiring cognitive skills is also the main objective of education. The assumption was that education plays an important role in creating a skilled workforce and an educated population is more productive because education forms modern values, attitudes and behaviour for a modern industrialized economy. E. A. Hanushek and Woessmann (2008) argue that expansion of school attainment has not guaranteed improved economic conditions. They maintain that cognitive of the population – rather than mere school attainment – are powerfully related to individual earnings, to the distribution of income, and to economic growth. More and more policy discussion focus on the education quality.

Cognitive skills are considered as 'hard skills' of cognitive ability in areas such as literacy and numeracy, which are measured by academic tests (Gutman & Schoon, 2013; Heckman, 2000). Thus, cognitive skills are also associated with intelligence and the ability of problem solving (Falch, Nyhus, & Strom, 2014). Therefore, education plays an important role in creating skilled workforce. An educated population is more productive because education forms modern values, attitudes and behaviour for a modern industrialized economy (UNESCO, 2015a, 2015b, 2016).

When the education system fails to match to job market, skill mismatch emerges. The skill mismatch or gaps between level of educational attainment, levels of aspiration, and job opportunities can have considerable implications on economic growth. Skill mismatch is multidimensional (Gardner, 1983; Guvenen et al., 2015). The mismatch is based on the discrepancy between the portfolio of skills required by an occupation (for performing the tasks that produce output) and the abilities possessed by a worker for learning those skills.

Skill mismatch emerges as a result of rapidly changing social and economic landscapes, because education institutions are too slow to catch up with the changes. Skill mismatch refers to a failure of skills supply to meet skills demand (World; Bank, 2010; Gambin et al., 2016; Gardner, 1983; Guvenen et al., 2015). So addressing skill mismatch should focus on: (i) Matching schools to jobs is difficult, because of the disparity in educational philosophies, divergent view between parents and the national planners; (ii) Skill mismatch can act as a drag on economic growth; and (iii) Education reform is required to improve education quality and address skill mismatch.

Therefore, knowledge and hard skills includes: (i) cognitive ability and understanding (E. A. Hanushek & Woessmann, 2008); (ii) ability for lifelong learning (E. A. Hanushek & Woessmann, 2008; OXFAM, 2015; UNESCO, 2015a, 2015b) and learning how to learn, for making good judgement, questioning to create new knowledge, metacognition (Abe, 2018; Bonwell & Eison, 1991; Flavell, 1981); (iii) media and information literacy (ability to obtain and analyse information through ICT, ability to critically evaluate information and media content, ethical use of ICT) (OXFAM, 2015; UNESCO, 2015b, 2016).

2) Soft and life skills

Education should provide the students the opportunities to gain soft and life skills. Several recent studies show that non-cognitive skills are also important for productivity and social outcomes. Drawing on a body of recent scholarship regarding education and training, Heckman, Lochner, and Taber (1998) pointed out to the fundamental misconceptions about the way socially useful skills embodied in persons are produced. Numerous instances can be cited of high-IQ people who failed to achieve success in life because they lacked self-discipline and low-IQ people who succeeded by virtue of persistence, reliability, and self-discipline (Heckman, Pinto, & Savelyev, 2013; Heckman & Rubinstein, 2001). Jencks (1979) found that personal traits as leadership, industriousness, and perseverance had substantial impact on individual earnings and educational attainment holding family characteristics and cognitive skills constant.

Citing recent research in psychology and cognition, Heckman (2000) stressed the importance of skill formation of the early pre-school years when human ability and

motivation are shaped by families and non-institutional environments. Skills formed during early infant and preschool years can translate into success or failure in school and in post-school learning. For that reason, families and environment play the crucial role in skill formation at early stage. Much of the effectiveness of early-childhood interventions would contribute to the development of non-cognitive skills and create motivation later on in life (Heckman, 2000). Learning is a lifetime affair. Learning starts in infancy long before formal education begins and continues throughout life. Learning continues after school. This is known as learning by doing and workplace education. Post-school learning accounts for as much as one-third to one-half of all skill formation in modern economy (Heckman et al., 1998).

Soft and life skills refers to as critical and innovative thinking (creativity, entrepreneurship, resourcefulness, application skills, reflective thinking, reasoned decision-making) skills; (ii) interpersonal (communication, organization, teamwork, collaboration, empathy, compassion) skills; and (iii) intrapersonal (self-discipline, ability to learn independently, flexibility and adaptability, self-awareness, perseverance, self-motivation, compassion, integrity, self-respect) skills (E. A. Hanushek & Woessmann, 2008; Heckman, 2000; UNESCO, 2015a, 2015b, 2016). Soft skills also include the ability to manage complexity and uncertainty (OXFAM, 2015).

3) Respect the law and order

Citizenship can have a very broad and different meaning. Torney-Purta et al. (2001) summarized various studies and identified citizenship as including national identity, voting in elections, legal or social entitlement, obligations such as military services, and opportunities such as political participation (Tawil, 2013; Torney-Purta et al., 2001), questioned citizen, obedience to law, patriotism (Anderson, Avery, Pederson, Smith, & Sullivan, 1997; Tawil, 2013), and trust in elected officials (Davies, Gregory, & Riley, 1999; Tawil, 2013).

Therefore, the respect for the law and order consists of: (i) legal and social entitlement and obligations; (ii) questioned citizen, obedience to law, patriotism; and (iii) advocacy and trust in elected officials.

4) Community and sustainable development

The Eighteenth Century's French philosopher, Jean-Jacques Rousseau believes that education should be in accord with nature, i.e. education is to ensure a more social society. Pestalozzi went further to consider education as a civic function, which can be identified with the realization of the ideal of the national state (Dewey, 2004). The education systems have an important role in developing the knowledge, skills, the values and attitudes to enable learners: (i) to develop a sense of shared destiny; (ii) to become aware of the challenges; (iii) to engage in civic and social action; (iv) to commit to social justice, equity and sustainable development; and (v) to participate in community development (OXFAM, 2015; Tawil, 2013; UNESCO, 2015a, 2015b). Quality citizenship can also include social concern and social justice (Davies et al., 1999).

Thus, community and sustainable development includes: (i) a sense of shared destiny; (ii) social concern, social justice, active; and (iii) responsible participation in community affairs.

5) Participation in political activities

Conventional citizenship also includes political activities, such as membership in political party, engage in political discussions and vote in every election.

Torney-Purta et al. (2001) summarized various studies and identified citizenship as including national identity (OXFAM, 2015), voting in elections, taking part in environmental protection, legal or social entitlement, obligations such as military services, and opportunities such as political participation (Torney-Purta et al., 2001), responsibility to be an informed voter and membership in political parties (Tawil, 2013; Theiss-Morse, 1993).

Therefore, participation in political activities include: (i) national identity and membership in political parties; (ii) voting in elections; and (iii) responsibility to be an informed voter.

2.3.2.2 The Quality of Global Citizen

Influenced by globalization, which creates new economic, social and cultural arenas beyond national borders, the concept of citizenship has transcended the boundary of a nation-state. Citizens in the nation-state may develop a sense of belonging to a global community through identification with the humanistic values, such as human rights, respect for human dignity, social justice, and international solidarity. In the 1990s, Falk, 1994 cited in Tawil (2013) proposed a notion of 'global citizens' which included transnational and global activists. This restrictive definition has recently been expanded to include every human being as a potential global citizen 'by virtue of living on planet earth' (Mayer & Sandy, 2009 cited in Tawil, 2013). Drawing from the new role of education, the core concept of quality global citizenship can be defined based on the following three dimensions (UNESCO, 2015b): (i) cognitive; (ii) socio-emotional; and (iii) behavioral.

1) Awareness of global issues

Another component of global citizenship shall include knowledge, understanding and critical thinking about global, regional, national and local issues (OXFAM, 2015; UNESCO, 2015a). Global citizenship also incorporates the following issues: (i) environmental issues: sustainable management of natural resources; impact of patterns of production and consumption; climate change; biodiversity; environmental education; and education for sustainable development; and (ii) issues of social and economic justice: poverty; health and well-being; inequality; and exclusion (OXFAM, 2015; Tawil, 2013; UNESCO, 2015a, 2015b).

Therefore, awareness of global issues includes: (i) become aware of the global challenges; (ii) sustainable management of natural resources, climate change, conservation of cultural, economic and natural heritage; and (iii) global terrorism and global conflicts.

2) Respect for diversity and human values

In response to the global trends of enhancing global citizenship, the MoEYs, in collaboration with the Asia-Pacific Centre of Education for International Understanding (APCEIU) under the auspices of UNESCO, launched a program to

incorporate the Global Citizenship Education (GCED) program into Cambodian national curriculum and to implement it in Cambodian schools nationwide. GCED trains and educates students to fashion a more humane, just, equitable, inclusive, peaceful and sustainable world. It allows students to participate in the world in their capacity as global citizens in order to contribute to the positive social change. Within the Cambodian context, GCED has four main objectives: (1). To develop attitude of respect for diversity, differences and multiple identities regardless of race, religion, political tendency, culture, gender and socio-economic status; (2) To instill in students a social and ethical obligation to fight against patterns of extremism, radicalism, racism, and/or extreme nationalism; (3) To foster empathy, peace, tolerance, forgiveness, reconciliation and social responsibility; (4) To become an informed, engaged, responsible and responsive global citizens.

Global citizenship should also include: (i) human rights issues, such as fundamental human rights and responsibilities; child's rights; gender equality; cultural rights; freedom of expression; and (ii) intercultural issues, such as identity; cultural diversity; world heritage; arts; languages; world history; indigenous knowledge systems; peace and conflict (OXFAM, 2015; Tawil, 2013; Torney-Purta et al., 2001; UNESCO, 2015a, 2015b). UNESCO (2015b) also proposes that the second component of global citizenship is socio-emotional, i.e. a sense of belonging to a common humanity, sharing values and responsibilities, empathy, solidarity and respect for differences and diversity.

Therefore, the respect for diversity and human values shall consist of the following elements: (i) fundamental human rights and responsibilities; (ii) a sense of belonging to a common humanity, sharing values and responsibilities; and (iii) respect for differences and diversity.

3) Willingness to act to make the world a better place

German philosopher Immanuel Kant adhered to the view that education is essential for the development of mankind. In his lecture 'On Pedagogics', Kant states that 'Good education is itself the source of all that is good in the world' (Kanz, 1993). Kant considers that the main tasks of education consists of the following: (a) disciplined

thinking; (b) creation of a cultivated outlook; (c) enhancement of civilization; and (d) imparting moral rectitude, i.e. an attitude to choose good purpose only (Kanz, 1993).

Education should also promote the commitment by the learners to take action at local, national and global levels for a more peaceful and sustainable world and should promote a sense of shared destiny and commitment to act to make the world a better place (OXFAM, 2015; Tawil, 2013; Torney-Purta et al., 2001; UNESCO, 2015a, 2015b).

Therefore, the willingness to act to make the world a better place consists of: (i) action at local, national and global level for a more peaceful and sustainable world; (ii) peaceful, tolerant, inclusive and sustainable world; and (iii) a social and ethical obligation to fight against patterns of extremism, radicalism, racism, and/ or extreme nationalism.

4) Responsibility for their actions

Quality citizenship has a crucial role in promoting values to enable learners to become responsible for their own actions. UNESCO (2015b) considers that global citizenship should include a behavioral component, i.e. effective and responsible action. The new concept of citizenship called for active and responsible participation of the citizen in their own communities, countries, regions and on Planet Earth (UNESCO, 2015b). This definition of citizenship has become to be known as a post-national state paradigm (UNESCO, 2016a).

In response to the global challenges, UNESCO launched a vision for education in the 21st Century (UNESCO, 2015a). This constitutes one of the components of the Sustainable Development Goals (SDG) and the 2030 Education Agenda (UNESCO, 2015b). As noted in the UN's Global Education First Initiative, 'It is not enough for education to produce individuals who can read, write and count. Education must fully assume its central role in helping people to forge more just, peaceful, tolerant and inclusive societies' (Ban, 2012). For that reason, Global Citizenship Education (GCED) has become one of the pillars of Education 2030 Agenda. GCED is defined as '…a framing paradigm which encapsulates how education can develop the knowledge, skills, values and attitudes learners need for securing a world which is more just,

peaceful, tolerant, inclusive and sustainable' (UNESCO, 2015a). Thus, GCED includes the elements of civic and citizenship education beyond national boundaries. Education should help learners to gain knowledge and cognitive skills to build values, soft skills and attitudes in order to resolve global issues in their social, political, cultural, economic and environmental dimensions, promote international cooperation and social transformation and to become an informed, engaged, responsive and responsible global citizens (OXFAM, 2015; Tawil, 2013; Torney-Purta et al., 2001; UNESCO, 2015a, 2015b).

The responsibility for their actions shall include: (i) education to help resolve global issues in their social, political, cultural, economic and environmental dimensions; (ii) education to help learners promote international cooperation and social transformation (UNESCO, 2015a); and (iii) education to help learners to become an informed, engaged, responsive and responsible global citizens.

In conclusion, Quality Citizenship education is aimed at preparing young people for their roles and responsibilities as both quality national and quality global citizen, comprises different components. Initially, it includes citizenship, civics, social sciences, social studies, world studies, society, studies of society, life skills and moral education (Kerr, 1999). However, with rising global challenges, many countries and international organizations have put increasing emphasis on citizenship and global citizenship education to prepare young people to cope with this uncertain world.

Therefore, the concept of quality citizenship has evolved and expanded to cover broader grounds than education quality. Education quality forms only part of the learning objectives. Education quality has become one of the conditions to realize quality citizenship. Education should produce rounded individuals embedded in good citizenship.

At present, the quality citizenship has become a newly emerging international education paradigm, which is part of the educational goal of the 21st century. It is also the educational goal of UNESCO for eight years (2014-2021) and a larger global Sustainable Development Goals (SDGs) to be achieved by 2030. More and more countries have sought to undertake major reforms of schools and the curriculum in order to respond to the needs of the 21st century. Notwithstanding these trends, it is for the

first time, that a study is planned to link education management reform to quality citizenship. Indeed, the linkage of education management reform to quality citizenship is not direct. It is transited through the knowledge, skills and attitude of learners, notably the concept of education quality. Therefore, we can establish a conceptual framework, linking education management reform to quality citizenship. We can conclude that Quality Citizenship consists of the following characteristics as described in Table 4.

Table 4 Characteristics of Quality Citizen

	Hanushek & Woessman	OXFAM, 2015	Tawil, 2013	Torney-Purta et al., 2001	UNESCO, 2015a	UNESCO, 2015b	UNESCO, 2016
1. Quality of national citizen							
1.1 Economic component							
(1) Knowledge and hard skills	✓	✓			✓	✓	✓
(2) Soft and life skills	✓	✓			✓	✓	✓
1.2. Socio-political component							
(3) Respect the law and order		✓	✓	✓			
(4) Community and sustainable development;		✓	✓		✓	✓	
(5) Participation in political activities		✓	✓	✓			
2. Quality of global citizen							
2.1 Economic component							
(1) Recognition of global issues;		✓	✓		✓	✓	
(2) Respect for diversity and human values;		✓	✓	✓	✓	✓	
2.2. Socio-political component							
(1) Make the world a better place		✓	✓	✓	✓	✓	
(2) Responsibility for their actions		✓	✓	✓	✓	✓	

2.4 Related Researches

The For the previous research topic most closely related to this earlier descriptive research as follow:

Research literature shows that there are different ways to conduct research on education management reforms, aimed at improving education quality. However, there tends to be an increasing use of needs assessment to develop policies, strategies or even

a prototype of a computer-based-simulation program (CBSP) to improve the education quality.

Hallinger and Bryant (2013) has been drawing upon a set of empirical studies on educational reform in Thailand, provided a synthesis of findings and lessons learnt on education reform that can be useful for East Asian countries. The paper employs research synthesis of findings drawn from empirical studies of education reform in Thailand. ONEC, 1999 cited in Hallinger and Bryant (2013) released the substantive thrusts of the National Education Act (NEA) in 1999 described about the decentralize authority, engage local initiative in the management and delivery of educational services, support the integration of 'local wisdom' into the curriculum, empower teachers, create a more active learning environment for pupils, identify curriculum standards and new means of assessment and refocus the system from quantity of graduates to quality of learning. The studies revealed successful reorientation of the nation's educational system around a new vision and educational goals. Reforms in curriculum, teaching and learning, ICT and management systems were identified by school principals as the most important changes. However, the vision of change has been much slower to penetrate the daily practice of Thailand's 35,000 principals and 400,000 teachers. Only about one-third of teachers had actively engaged these reforms in their teaching practice. The complexity and scale of the reform would strain the capacity of any organizational system. The key factors supporting change included school-level leadership, policy support and communication. The most prominent factors impeding change were complexity of the reforms, financial support, staff skill and the prior experience with change.

Using concepts of assessment-based education reform, Suwimon Wongwanich, Piromsombat, Khaileng, and Sriklaub (2015) employed a formative research and development methodology to develop and examine policy delivery strategies for Thailand education reform during 2011-2013. The research findings show that the predominant use of top-down policy delivery strategies, such as sending policy-related documents to teachers, policy briefing meeting, and providing working manuals resulted in inconsistent efforts for education management reform. Moreover, many reform policies and delivery strategies were implemented without understanding school

contexts, teachers' needs, and teachers' active participation. Teachers were unwilling to change. Therefore, the goals of the research study were to design delivery strategies by focusing on assessment of students' learning and uses of its results to adjust lesson plans or teaching methods. Research results showed that assessment-based policy delivery strategies enabled teachers to assess their performance and utilize assessment results to develop themselves and learners. They also found that policy delivery strategies can be divided into two groups: generic strategies and specific strategies. Generic strategies consisted of collaborative learning and professional learning communities (PLC). Specific strategies focused on working methods between researchers and teachers using new techniques. New policy delivery concepts is designed to empower teachers to be able to work for improving students' learning. A mentoring system with high quality mentors and coaches is needed. It is worth to enhance university-school collaboration networks for every education district. The study concluded that delivery units should be established at different levels: policy level (Office of the Education Council - OEC), scholars affiliated to OEC, offices of education service areas and at the classroom level.

Pyhältö, Soini, and Pietarinen (2011), carried out a research on the views held by principals and chief education officers of a school reform in Finland. This study was carred out based on a systemic design research approach by using open-ended questionnaires completed by educational leaders operating in local school districts. They fond out that pedagogy was emphasized most often as the core of school reform by principals but chief education officers considered technical and financial factors more often as the critical core of educational reform. Nevertheless, both groups had quite similar ideas on how to promote school development. This suggests that despite common ground in terms of the aim perceived by the principals and chief educational officers, there is also a need to construct a more coherent and shared theory of change (Fullan, 2007) both within and between the groups to promote a sustainable (Andy Hargreaves & Fink, 2004) reform process.

Na Ayudhaya, Siribanpitak, and Sumettikoon (2016), employed a research and development approach to design and develop a simulation for assessing People Skills and Competencies (PSCs) of school leaders in Thailand. The study consisted of two

parts. The first part focused on management competencies and skills for Thai school leaders. People skills and competencies, such as self and social awareness, collaboration and teamwork and ability to adjust own style and relationship building were the highest rated competencies for school leaders. The second part was designed to identify the themes and content of simulation by discovering priority needs of PSCs used by school leaders. The themes for developing simulation content have been prioritized based on PNI scores. The research shows that Academic Management received the highest scores, while curriculum development, measurement and evaluation and teaching and learning were ranked with the highest PNI scores. The research also indicated that school leaders should use their people skills to manage the community representative. Then, the researcher proceeded to build a prototype of computer-based simulation program (CBSP).

After reviewing previous scholarship on education management, education management reform and strategy development, the researcher formulated the following research title: 'Education Management Reform Strategies for Enhancing the Quality Citizenship in Cambodia.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design and research process used in the study of Education Management Reform Strategies for Enhancing the Quality Citizenship in Cambodia. The research seeks to develop education management reform strategies in order to: (i) improve education quality, such as knowledge, soft skills and core life skills; (ii) develop student's emotional intelligence; (iii) promote conventional and political citizenship activities, such as obey the law, strengthen national identity and patriotism, enhance commitment to democracy, political discussions and electoral process; (iv) encourage social movement-related citizenship activities, such as commitment to social justice, equity, human rights, environment protection, sustainable development and community development; (v) increase awareness of the wider world and has a sense of their own role as a world citizen; (vi) ensure the respect and value diversity; (vii) encourage citizen to act to make the world a more equitable and sustainable place; and (viii) increase the sense of responsibility for their actions.

The objectives of the research study were to study the conceptual framework of education management reform strategies, to study the current and desirable states of education management reform strategies for enhancing the quality citizenship in Cambodia, to evaluate the strengths, weaknesses, opportunities and threats to the education management reform strategies and to develop education management reform strategies for enhancing quality citizenship in Cambodia. The chapter covers the research design, the population, the sampling, the research instruments and the methods of data collection and data analysis.

3.2. Research Design

This research on Education Management Reform Strategies for Enhancing the Quality Citizenship in Cambodia employed research and development method (R&D), which consists of R1D1, R2D2 and R3D3 consecutively. Educational Research and Development (R&D) has been widely used as a research method to check the quality

of education products, such as (i) education materials and tools, such as textbooks, slides, TV, computer models and computer programs; and (ii) strategies and management of the education systems, such as teaching systems and teaching methods (Siribanpitak, 2008). The R&D methodology involves a number of steps, starting from identifying the education products to be researched and developed, data collection, related research, R&D plan, development of model of the first product and three more phases of validation of the model until the development of the final education products (Siribanpitak & Kijtorntham, 2014).

In developing strategies using R&D methodology, the researcher proposes the following consecutive steps, as described in details in Table 3, to develop the strategies:

Step 1: Review of literature related to the study topic, validate the conceptual framework, then study the current and desirable states of education management reform, analyse the priority needs, as well as the internal and external factors that affect the strategy (R1);

Step 2: Developing the strategies (D1 = Development of the first draft);

Step 3: Individual validation of the suitability and feasibility of the strategies by a group of education specialists and practitioners (R2);

Step 4: Improvement of the strategies and development of the second draft (D2)

Step 5: Group validation of the strategies by a focus group (R3).

Step 6: Development of the new strategies of high quality (D3).

Therefore, the research study begins by conducting questionnaires and survey forms to gather various data, analyses the data using needs assessment study and descriptive statistics, develop the strategies and validate them by using the strategy validation approaches and employ the focus group discussion method in order to collect detailed qualitative data and views from education experts and stakeholders to validate and improve the strategies.

3.3 Research Process

The research process was designed based on the purposes of the study: (1) to study the conceptual framework of education management reform for enhancing the

quality citizenship; (2) to study the current and desirable states of education management reform for quality citizenship in Cambodia; (3) to find out priority needs in education management reform for enhancing quality citizenship in Cambodia; and (4) to develop education management reform strategies for enhancing quality citizenship in Cambodia.

Table 5: Research phases, methods and procedures

Objectives	Phases	Research Methods/ Tools/ Sources	Expected Results
1	1. Study concepts and theories (R1).	Documentary research to prepare a draft conceptual framework.	Conceptual Framework
	2. Study the conceptual framework (R1).	2.1 Interview 5 experts for more details of the conceptual framework of education management reform and the quality citizenship. 2.2 Validate the conceptual framework by focus group discussion (5 experts).	
2	3. Study current and desirable state of education management reform for quality citizenship in Cambodia (R1).	3.1 Set the research tools: - Questionnaire: Current and desirable state: Education expert, administrator, teachers, student and stakeholders - Survey (Facts): Director / Representative - Validity and Reliability Check: IOC, Cronbach's Alpha coefficient. 3.2 Population and Sample: Yamane Tables (1976). Systematic / Simple Sampling. 3.3 Statistics used: frequency, percentage, mean, standard deviation	The current and desirable state of education management reform for quality citizenship in Cambodia
3	4. Analyze the Priority Needs Index (R1).	4.1 Analyze the priority need of the differences or gaps between current and desirable state in overall aspects and in each case using PNI modified (Wongwanich, 2005)	PNI level range
4	5. Analyze internal and external factors that affect the strategy (R1).	5.1 A SWOT analysis was conducted 5.2 A TOWS matrix analysis was carried out using a TOWS Matrix chart, the PNI modified scores of strengths, weaknesses, opportunities and threats set in priority order from the highest to the lowest level are put in the TOWS Matrix chart.	SWOT and TOWS matrix results
	6. Develop the first draft of strategy (D1).	6.1 Discuss the results of the PNI and TOWS matrix analysis with the thesis advisors	First draft of the strategy

		6.2 Synthesize the obtained information and form the first draft	
	7. Individual validation of the first draft of strategy of education management reform (R2).	7.1 Individual validation by 51 education experts and stakeholders (10 experts and 41 stakeholders, such as MoEYS management and directors, school principals, teachers, Development Partners, members of non-governmental organizations and students).	Suitability and feasibility of the first draft of the strategy from the individual focus group
	8. Development of the Second draft of strategy (D2)	8.1 Check with the thesis advisors 8.2 Synthesize the obtained information and form the second draft	Second draft of the strategy
	9. Group validation of the second draft of strategy of education management reform and form the final draft of strategy (R3).	9.1 Group validation by 14 education experts and stakeholders (10 experts and 4 stakeholders) in small group discussion 9.2 Synthesize the obtained information and form the final draft	Suitability and feasibility of the second draft of the strategy
	10. Final revision of the strategy (D3).	10. Final revision of the strategy	Final draft of the strategy

According to the diagram, the research procedure consists of the following phases:

3.3.1. Phase 1 To study the concept and theories of education management reform and quality citizenship (R1).

In the first phase, the researcher aims to study the concepts, theories and previous research studies related to education management, education management reforms and strategy development in order to draft the research's conceptual framework as follows:

3.3.1.1. Documentary research: To review, analyze, and synthesize the documents related to education management, education management reforms, strategy development and good citizenship.

3.3.2. Phase 2 To define the conceptual framework for education management reform strategy for enhancing the quality citizenship (R1).

3.3.2.1 Key informant interview: To interview five experts in education management reform and quality citizenship on the conceptual framework. The experts were: 1) Dr. Nath Bunroeun, Secretary of State, MoEYS; 2) Dr. Chet Chealy, Rector of the Royal Universit of Phnom Penh (RUPP); 3) Dr. Dy Samsideth, former Dean, Faculty of Education, RUPP, currently Deputy Director General, MoEYS; 4) Dr. Chhinh Sitha, Lecturer, Faculty of Education, RUPP; and 5) Dr. Sok Soth, Dean, Faculty of Education, RUPP. The researcher interviewed the five experts in early July 2017.

3.3.2.2 Focus group discussion: Then, all the obtained data were synthesized to formulate the conceptual framework of the research, which was validated by five experts in education management and quality citizenship by using a focus group discussion, which took place on 28 July 2017 in the meeting room A of the Ministry of Education, Youth and Sport, Kingdom of Cambodia.

3.3.3. Phase 3: To study current and desirable state of education management reform for quality citizenship in Cambodian (R1)

In the second phase, the researcher aims to study the current and desirable state of the Education Management Reform for quality citizenship in Cambodia by using the following research methods: questionnaire, survey and interview. The detailed study includes research instruments, population, sample, data collection and data analysis methods as follows:

3.3.3.1 Research Instruments: The instruments used in this phase is the dual-response format or in two-situation columns questionnaires and survey forms. The questionnaire was drafted in English. After its validation by the five education experts mentioned earlier and approval by the dissertation advisors, the questionnaire was translated into Khmer and then tested with 15 teachers and students to confirm its reliability.

1) Questionnaire preparation process.

(1) Set the purpose of questionnaires and surveys form.

(2) Design the questionnaire and survey form.

(3) Key points in the questionnaire: Divided into 3 parts.

Part 1: General information of the respondents using check list which includes the current status of respondents (school administrators, teachers or others), gender (male or female), age groups (under 30, 30-39 years old, 40-49 years old and older than 50 years old), highest educational qualification, and professional experience and working in education sector.

Part 2: Current and the desirable state of the education management reform for quality citizenship in Cambodia. It is a 5 level rating scale (Suwimon Wongwanich, 2005). Every question in the questionnaire has dual-response or two-situation column answer that describe about the level of current and desirable state of the education management reform in Cambodia. Each scale were considered as follows:

5   refers to   the reality that strongly suitable to current state of education reform/
the reality that strongly suitable to desirable state of education reform

4   refers to   the reality that very suitable to current state of education reform/
the reality that very suitable to desirable state of education reform

3   refers to   the reality that moderately suitable to current state of education reform/
the reality that moderately suitable to desirable state of education reform

2   refers to   the reality that less suitable to current state of education reform/
the reality that less suitable to desirable state of education reform

1   refers to   the reality that very less suitable to current state of education reform/
the reality that very less suitable to desirable state of education reform

The researcher also defined the translation of Mean average in 5 level as follows:

4.50-5.00   means that the current state/ desirable state are in the highest level

3.50-4.49   means that the current state/ desirable state are in the high level

2.50-3.49   means that the current state/ desirable state are in the moderate level

1.50-2.49   means that the current state/ desirable state are in the lower level

1.00-1.49   means that the current state/ desirable state are in the lowest level

Part 3: Other suggestions and recommendations, which are the open-ended questions.

2) Survey form: Divided into 2 parts as follows:

Part 1: Survey the general situation related to education management reform in Cambodia by checklist and open-ended questions.

Part 2: Survey the priority need in education management reform in Cambodia to improve quality education by checklist and open-ended questions.

3.3.3.2 Validity and reliability check of the questionnaires

1) Content validity:

1. The researcher brought the questionnaires and the survey forms to request the advisors to check and give more comments about the content validity, correctness of language used and consistency with research objectives and the conceptual framework.

2. The researcher adjusted the questionnaires and survey forms, based on the advisors' comments.

3. The researcher brought the revised questionnaires and survey forms to 5 experts in education management reform and strategy development to check the content validity and the appropriateness of the questionnaires.

4. The researcher calculated the result of content validity checking to find out the value of IOC by using Rovanilie and Hambelton's formula as follows:

Formula

$$IOC = \frac{\sum R}{n}$$

If   IOC   refers to Item Objective Congruence between -1 to +1

$\sum R$ refers to the total result of expert comments

n   refers to the number of all experts

The Score principle

+1   =   Be sure that all questions in questionnaire are consistent with content

to measure

0   =   Not sure that all questions in questionnaire are consistent with content to measure

-1   =   Be sure that all questions in questionnaire are inconsistent with content to measure

IOC value of the questionnaire from 0.5 or more than 0.5 considered as the good questionnaire that every question points are between 0.60 – 1.00 of IOC value.

2) Reliability check: The researcher translated the questionnaires that already passed the content validity check into Khmer language by comparing the meaning with the questionnaires in English. Then the researcher brought the translated questionnaires to try out with 20 respondents that were excluded from the research sample. The 20 respondents include: 1 education expert, 3 Department Directors, 3 school principals, 5 school teachers, and 8 students. The data obtained from questionnaires try out were calculated to find the content reliability by using Cronbach' Alpha Coefficient formula as follow:

Formula

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum_{i=1}^{k} s_i^2}{s_t^2}\right)$$

If α Stands for α =Reliability of coefficients of questionnaires

k Stands for The number of questions in questionnaires

$\sum S_i^2$ Stands for The sum result of the inconstancy of each questions

$\sum S_t^2$ Stands for The sum result of the inconstancy of the whole questionnaire

If Alpha Coefficient values is 0.70 and more, it means that the questionnaires is reliable. So, the researcher will be able to proceed to the next phase of data collection by using the questionnaires.

1) Content Validity

After the approval of the conceptual framework, the researcher proceeds to drafting the questionnaire. The questions in the questionnaire were checked by five education specialists for content validity. Content validity check was employed to validate content comprehension, content accuracy, and content clarity by using IOC index in scoring the items. The IOC index of each items which were retained in the model of education management reform strategy for enhancing the quality of citizenship in Cambodia, should be higher than 0.50 (Sireci, 1998; Turner & Carlson, 2003). In this development of this model of education management reform strategy for enhancing the quality of citizenship in Cambodia, IOC index each item was ranged

from 0.8 to 1.00. Hence, this newly developed model of education management reform strategy for enhancing the quality of citizenship in Cambodia is content validated by five experts in education management.

2) Reliabilities

Reliability coefficients were examined by a pilot study conducted with 15 Cambodian high school teachers and students on the model of education management reform strategy for enhancing the quality of citizenship in Cambodia. The adjusted items in the questionnaire depending on experts' recommendations were tried out. In this process, the reliability coefficient were examined by using Cronbach's Alpha Coefficients (Gliem & Gliem, 2003).

All sub-components of the questionnaire were analyzed to calculate the reliability coefficients. The analysis results revealed that instrument quality in term of internal consistency were high which meet the accepted criteria. The reliability coefficients of this study were ranged between .86 - .98, respectively, thus, the highest reliability of all sub-components were society and technology with the reliability coefficient value of .98 each, and the lowest reliability sub-component was education finance management reform with the reliability coefficient value of .86.

3) Questionnaire revision: The researcher will bring the validity and reliability analysis results to discuss with thesis advisors and revise the questionnaires to become a final version.

Population and Sample

Population: The population used in this research consists of the following: education experts, MoEYS directors, school administrators, teachers, members of the School Support Committee and students under the Ministry of Education, Youth and Sport of the Kingdom of Cambodia, as well as other stakeholders.

Sample or key informants:

To obtain the data, the research questionnaires in a form of dual-response format or in two-situation columns were distributed to 710 respondents from MoEYS and related NGOs. The respondents were 10 education policymakers, 30 Directors of MoEYS departments, 80 school administrators, 150 teachers, 80 School Support

Committee members, 300 students and 60 other stakeholders (members of the Development Partners and NGOs).

Table 6 Category, population and sample of respondents

No	Category of respondents	Population Number	Sample Number
1	Education Policymakers	21	10
2	Directors and Deputy Directors of MoEYS departments	120	30
3	Development Partners	250	60
4	School administrators	6,875	80
5	Teachers	92,960	150
6	School Support Committee members	50,000	80
7	Students	3,000,000	300
	TOTAL		710

Simple random sampling was used to select the sample. The size of the sample was calculated by comparing the total population to the Yamane (1976) table at a 5% error of 95% confidence interval. The researcher selected a sample of students from 80 High Schools by using a simple random sampling to get the required number of samples.

The researcher considers three options for random selection of schools.

Option Number 1 is based on 6 strata of schools: urban large, urban medium, urban small, rural large, rural medium and rural small.

Option Number 2 is based on 8 strata of schools in the following regions: urban plain, urban Tonle Sap, urban plateau, urban coastal, rural plain, rural Tonle Sap, rural plateau and rural coastal regions in 22 provinces of Cambodia.

Option Number 3 is based only on two regions: urban and rural, 25 provinces.

The researcher uses option 2, which is based on 8 strata of schools in different regions, which reflect well the differentiation of schools in Cambodia.

The Survey Sampling Procedures

One of the challenges in educational sampling is that students are grouped together in "clusters" in communities, schools and classrooms. Students (and their families) within these clusters commonly share characteristics, which has the effect of reducing sampling power when schools are selected. The IIEPSAM program

specifically addresses this issue of clustering by first allowing the user to calculate the necessary sample size based on an Effective Sample Size (ESS) of 400 students. The ESS is a commonly employed metric in education sampling, and 400 students is an international standard for the minimum sample size. What this means is that the sample of schools (and students) must be large enough to be the equivalent of selecting 400 individual students at random from all over country (likely from 400 schools). Since sampling individual students is not practical, the fundamental challenge of education sampling is to sample a large enough number of schools and students to insure that the sample has sufficient power. The researcher decided to conduct interview with only high school students.

The main inputs for the sampling are the Minimum Cluster Size (MCS), which refers to how many students are selected within each school, and the Intraclass Correlation Coefficient (ICC), which is a measure of how similar students are within schools. Previous test applications in Cambodia have shown ICCs of roughly 0.30, so by combining this with an MCS of 30 students the minimum number of schools and students that are needed to achieve an Effective Sample Size of 710 can be produced.

The researcher employed a two-stage sampling design for the Educational Assessments which is common international practice. The sample was implemented using a sampling program (IIEPSAM) that was specifically designed by the International Institute for Educational Planning (IIEP-UNESCO). This type of sample has been used by the MoEYS for national assessment framework.

The first stage involved selecting schools using a probability proportional to size (PPS) (Kish, 1965) approach. MoEYS stratified the population of upper secondary schools by region, urban & rural, classification and geographic zone (Plains, Tonle Sap, Coastal and Plateau). By utilizing PPS design, school selection is dependent on the number of classes in the school. This technique ensures the sample has the same demographic proportional aspects as the population and as such is a statistically valid "representative" sample. The 80 schools are randomly selected by IIEPSAM which are from 22 provinces. The schools from Ratanak Kiri, Mondul Kiri and Pailin are not selected. The detailed PPS result is shown as following:

Table 7 School Sampling in Cambodia

STRATUM (8) Region (2) Geographic Zone (4)	POPULATION		SAMPLE	
	High Schools	Percent	School	Percent
1\1\Urban_Plains	100	22.5%	18	22.5%
1\2\Urban_Tonlesap	37	8.7%	7	8.8%
1\3\Urban_Plateau	15	3.4%	3	3.8%
1\4\Urban_Coastal	12	2.3%	2	2.5%
2\1\Rural_Plain	184	33.6%	26	32.5%
2\2\Rural_Tonlesap	107	16.8%	13	16.3%
2\3\Rural_Plateau	63	6.9%	6	7.5%
2\4\Rural_Coastal	34	5.9%	5	6.3%
Total	552	100%	80	100%
	Source: EMIS 2015-2016		Source: IIEPSAM-2017	

The second stage selection of respondents is carried out at the school site by data collectors.

Data collection

1) The researcher requested assistance from MoEYS management to proceed to data collection by using questionnaires and survey forms in the target institutions identified by the samples.

2) Researcher's assistants went to the target schools to distribute the questionnaires and collected all responded questionnaires back.

Data analysis:

The obtained data in phase 2 were analyzed using descriptive statistics to find out the frequency, percentage, mean and standard deviations (SD) of current and desirable state of education management reform in Cambodia.

1) Analysis of data from the questionnaires

Part 1: To analyze the status of the respondents. The researcher analyzes the data using descriptive statistics for frequency and percentage.

Part 2: To analyze the current and the desirable state of education management reform for quality citizenship in Cambodia using the SPSS for windows program for Mean and Standard Deviation (S.D.).

Part 3: To analyze additional suggestions and comments. This is an open-ended questions about current and the desirable state of education management

reform for quality citizenship in Cambodia. Descriptive statistics will be used to determine frequency and percentage.

2) Survey data analysis

Analyze general information of current and the desirable state of education management reform in Cambodia. Descriptive statistics will be used to determine frequency and percentage.

3.3.4 Phase 4: To analyze the Priority Needs Index (PNI) to Identify the Gaps between the Current and Desirable Needs (R_1).

3.3.4.1. PNI analysis: After obtaining the data from phase 2, the researcher continuously figured out the Priority Needs Index (PNI) level range, using the Modified Priority Needs Index)PNI$_{modified}$), suggested by S Wongwanich and Wiratchai (1999) to define the gap outcomes between the current and desirable state of education management reform in Cambodia.

PNI Formula

$$PNI_{modified} = (I-D)/D$$

Where I (Importance) refers to the level of desirable state of the education management reform wanting to achieve
D (Degree of Success) refers to the level of current state of the education management reform

If the PNI level is high, it means the current and desirable state of education reform is weak. Otherwise, if the PNI level is moderate and low, it means that the current and desirable state of education reform is strong.

3.3.5. Phase 5: To analyze Internal and External Factors by Using SWOT analysis (R_1).

The researcher conducted the SWOT and TOWS Matrix analysis of the current state of education management reform in Cambodia to find out the strengths, weaknesses, opportunities and threats. Then, the researcher matched the strengths and opportunities (SO: using O to increase S), strengths and threats (ST: using S to prevent T), weaknesses and opportunities (WO: using O to strengthen W) and weaknesses and threats (WT: Knowing W and T for avoiding) together.

3.3.6. Phase 6: To develop the First Daft Strategy of Education Management Reform for Enhancing Quality Citizenship in Cambodia (D_1).

After receiving the data from PNI and TOWS Matrix analysis, the researcher discussed with the thesis advisor to develop the first draft Strategy of Education Management Reform in Cambodia by concluding the PNI in overall level range with TOWS Matrix analysis results and based on the conceptual framework by ranging them based on the components of education management reform for quality citizenship.

3.3.7. Phase 7: Individual validation of the first draft strategy of Education Management Reform for quality citizenship in Cambodia (R_2).

In this phase, the researcher conducted the individual validation procedure of the first draft of a strategy of Education Management Reform in Cambodian to specify the suitability and the feasibility. In individual validation, 51 experts and stakeholders, both Cambodians and foreigners, was invited to validate the first draft of Education Management Reform Strategy. The experts should have the following criteria: (i) PhD degree; or (ii) Experiences of at least 5 years in relevant fields.

3.3.8. Phase 8: Development of the Second Draft Strategy (D_2).

The results of the individual validation were classified, and then taken to consult with research advisors to define the main issues for justifying the first draft of Education Management Reform Strategy and to develop a second draft.

3.3.9. Phase 9: Group validation of the second draft of strategy of education management reform for quality citizenship in Cambodia and Development of the Final Draft Strategy (R_3).

For the next phase, another validation of the second draft of the Education Management Reform Strategy was conducted in small group discussion of a group of experts and stakeholders to confirm its suitability and feasibility. In this procedure, 14 experts and stakeholders were officially invited to join a focus group discussion to be

held at MoEYS to recheck and confirm the suitability and the feasibility of the second draft strategy.

3.3.10. Final Revision (D₃).

Opinions and suggestions of experts and stakeholders obtained from the focus group discussion were synthesized and categorized using content analysis. Consequently, those valuable main ideas were taken to consult with thesis advisors to define some significant main points for adjusting the second draft of the Education Management Reform Strategy, and a final version of the "Education Management Reform Strategies for the Quality Citizenship in Cambodia" was developed.

CHAPTER 4
RESEARCH FINDINGS

The results of data analysis are presented as follows:

4.1 The conceptual framework of the education management reform and quality citizenship

4.2 The current and desirable states of the education management reform for enhancing quality citizenship in Cambodia

4.3 The strengths, weaknesses, opportunities and threats of the education management reform for enhancing quality citizenship in Cambodia

4.4 Development of the education management reform strategies for enhancing quality citizenship in Cambodia.

4.1 The conceptual framework of the education management reform and quality citizenship

In this study, the researcher employed the following steps to develop the conceptual framework of the Education Management Reform and the Quality Citizenship:

4.1.1. Synthesis of the draft conceptual framework on Education Management Reform and Quality Citizenship from literature review and interview with five experts in education.

4.1.2. Evaluation of conceptual framework by experts.

4.1.1. Synthesis of the draft conceptual framework

The conceptual framework of Education Management Reform and the Quality Citizenship can be summarized as follows:

The literature on education management reform provides the following characteristics of education management reform as specified in Table 8

Table 8 Characteristics of education management reform

No	Key components of education management reform	Anson, 1994	Bruns, 2011	Elmore, 2004	Fullan, 2007	Glewwe, 2014	Hoy & Miskel, 2008	MoEYS, 2017	UNESCO, 1989	WB, 2018
1	Education policies are initiated as a comprehensive change program and set targets for performance to achieve stated educational outcomes				✓		✓	✓	✓	
2	Update education policies to be consistent with clear goals, i.e. the Sustainable Development Goals (SDG)				✓				✓	
3	Build institutional capacity and a sound monitoring and evaluation mechanism at all level to implement education management reform			✓	✓			✓		✓
4	Successful reform requires coordination between top-down (national education policies, Education Strategic Plan) and bottom-up (school policies, school culture) reforms, designed to modify schools in an in integrated, coordinated and coherent fashion to achieve clearly stated education outcomes				✓		✓	✓	✓	
5	Transferring responsibility and accountability for and decision-making over school operations to the School Management Committee (consisting of school principals, teachers, parents, and community members) in the areas of budget allocations, human resource management, curriculum development, procurement of educational materials and infrastructure improvement		✓					✓		
6	Empowering school principals and teachers, strengthening their professional motivation and enhancing their sense of ownership of the school		✓					✓		
7	Pedagogically, politically, and practically schools and communities must be brought together	✓	✓		✓			✓	✓	
8	Involvement of schools and parents/ community to improve student learning outcomes by: parent skills, communication, volunteering, learning at home, school decision making and collaboration with community agencies		✓		✓	✓		✓	✓	
9	Parents and community provide support for school and exert pressure on school to increase performance and improve learning outcomes		✓		✓	✓		✓		
10	Curriculum review to introduce quality citizenship concepts and generate questions on knowledge and ensure that the topics are covered in great depth							✓		✓

No	Key components of education management reform	Anson, 1994	Bruns, 2011	Elmore, 2004	Fullan, 2007	Glewwe, 2014	Hoy & Miskel, 2008	MoEYS, 2017	UNESCO, 1989	WB, 2018
11	Use of new instructional resources, curriculum materials and technologies			✓	✓			✓		✓
12	Review of textbooks to include new materials and new teaching methods			✓	✓			✓		✓
13	Use of new teaching methods and strategies, such as active learning, the use of ICT for teaching and learning	✓		✓	✓			✓	✓	
14	Provide teachers time, space, technologies and resources to learn, to teach, to innovate, to solve problems and to provide support to students	✓			✓					✓
15	Create a system of collaboration and information sharing among teachers to develop new knowledge and skills and provide rewards based on performance	✓						✓		✓
16	Creation of assessment framework and inspection system							✓		✓
17	Alignment of curriculum contents and achievement standards with assessment procedures to create an accountability system for monitoring the efficiency and effectively						✓	✓		✓
18	3. Use the results of the assessment for improving policies and the teaching and learning process, including the introduction of active learning methods					✓		✓		✓
19	Use of Education Strategic Plan to allocate financial resources by sub-sectors of education							✓	✓	✓
20	Introduction of Result-based management							✓		✓
21	Strengthen the monitoring and evaluation mechanism, which link school inputs to output, outcome and impact indicators							✓	✓	✓
22	School directors have flexibility in using financial resources to ensure the basic conditions for learning, from providing school infrastructure to increasing spending on teaching and learning		✓	✓			✓			✓
23	Build internal accountability (individual responsibility, collective expectations and accountability data are linked) linked to external accountability (external assessment and inspection)		✓							✓
24	Parents and community hold school directors and teachers accountable for learning outcomes		✓					✓	✓	
25	Adopt and implement Guidelines on School Improvement Funds (SIF) to link school inputs to outputs and outcome indicators							✓		

No	Key components of education management reform	Anson, 1994	Bruns, 2011	Elmore, 2004	Fullan, 2007	Glewwe, 2014	Hoy & Miskel, 2008	MoEYS, 2017	UNESCO, 1989	WB, 2018
26	Provide traning on school financial management to school administrators and education officials at all level							✓		
27	Develop and implement an Action Plan on school budget audit to encourage school to allocate more financial and human resources to achieve better learning outcomes							✓		✓
28	Attract competent persons into teaching profession by providing better financial and social benefits, diversifying entry points and reviewing conditions for the selection of teachers and school principals			✓		✓		✓	✓	✓
29	Improve preservice (PRESET) training by reviewing teacher training curriculum, increasing preservice teacher qualifications from 12+2 to 12+4 for primary and lower secondary school teachers and upgrading teacher trainers' qualifications					✓		✓		✓
30	Strengthen teacher management by integrating all data sources into a single Human Resource Information System, improving deployment policies and involving parents and community to participate in decision making over teachers and school matters			✓				✓		
31	Adopt and implement the Policy on Continuous Professional Development (CPD) by incorporating on-site, irregular and regular training into a comprehensive inservice system			✓	✓	✓		✓		✓
32	Cultivate a culture of life-long learning and sharing the experience and provide inservice training to existing teachers on new teaching methods and mentoring programs to improve education outcomes			✓	✓	✓		✓		✓
33	Promotion of collaboration, use of effective practice, coaching and expert support for inservice teachers, including the establishment of Profesional Learning Communities (PLCs)			✓	✓	✓		✓		✓
34	Create a monitoring and evaluation mechanism for teachers, based on Teacher Professional Standards, staffing norms, teacher qualications and Teacher Career Pathway (TCP)		✓		✓			✓		✓
35	Strengthen on-site monitoring through external inspection, school-based evaluation					✓		✓		✓

No	Key components of education management reform	Anson, 1994	Bruns, 2011	Elmore, 2004	Fullan, 2007	Glewwe, 2014	Hoy & Miskel, 2008	MoEYS, 2017	UNESCO, 1989	WB, 2018
	and assessment by School Management Committee									
36	School principal use the teacher performance assessment for proposing promotion and sanctions, expand the professional capacities of individual teachers, promote the formation of a coherent professional community and direct additional resources toward enhancing the quality of instruction	✓	✓		✓			✓		✓

Table 9 Sub-components of education management reform

Characteristics of education management reform	Sub-components of education management reform
1. Education policies are initiated as a comprehensive change program and set targets for performance to achieve stated educational outcomes (UNESCO, 1989; Fullan, 2007; Hoy & Miskel, 2008; MoEYS, 2017);	1.1 Education policy and Strategic Plan;
2. Update education policies to be consistent with clear goals, i.e. the Sustainable Development Goals (SDG) (Fullan, 2007; MoEYS, 2017);	
3. Build institutional capacity and a sound monitoring and evaluation mechanism at all level to implement education management reform (Elmore, 2004; Fullan, 2007; MoEYS, 2017);	
1. Successful reform requires coordination between top-down (national education policies, Education Strategic Plan) and bottom-up (school policies, school culture) reforms, designed to modify schools in an in integrated, coordinated and coherent fashion to achieve clearly stated education outcomes (Fullan, 2007; Hoy & Miskel, 2008);	1.2 School-Based Management;
2. Transferring responsibility and accountability for and decision-making over school operations to the School Management Committee (consisting of school principals, teachers, parents, and community members) in the areas of budget allocations, human resource management, curriculum development, procurement of educational materials and infrastructure improvement (Bruns et al., 2011; MoEYS, 2017);	
3. Empowering school principals and teachers, strengthening their professional motivation and enhancing their sense of ownership of the school (Bruns et al., 2011);	
1. Pedagogically, politically, and practically schools and communities must be brought together (UNESCO, 1989; Anson, 1994; Fullan, 2007; Bruns et al. 2011; MoEYS, 2017)	1.3 Community involvement in school
2. Involvement of schools and parents/ community to improve student learning outcomes by: parent skills, communication, volunteering, learning at home, school decision making and	

Characteristics of education management reform	Sub-components of education management reform
collaboration with community agencies (UNESCO, 1989; Fullan, 2007; Bruns et al., 2011);	
3. Parents and community provide support for school and exert pressure on school to increase performance and improve learning outcomes (Fullan, 2007; Bruns et al., 2011; MoEYS, 2017);	
1. Curriculum review to introduce quality citizenship concepts and generate questions on knowledge and ensure that the topics are covered in great depth (MoEYS, 2017; World Bank, 2018);	2.1. Education curriculum and textbooks
2. Use of new instructional resources, curriculum materials and technologies (Fullan, 2007; MoEYS, 2017);	
3. Review of textbooks to include new materials and new teaching methods (Elmore, 2004; Fullan, 2007; MoEYS, 2017);	
1. Use of new teaching methods and strategies, such as active learning, the use of ICT for teaching and learning (UNESCO, 1989; Anson, 1994; Elmore, 2004; Fullan, 2007);	2.2. Learning and teaching process
2. Provide teachers time, space, technologies and resources to learn, to teach, to innovate, to solve problems and to provide support to students (Anson, 1994);	
3. Create a system of collaboration and information sharing among teachers to develop new knowledge and skills and provide rewards based on performance (Anson, 1994; MoEYS, 2017);	
1. Creation of assessment framework and inspection system (MoEYS, 2017; World Bank, 2018);	2.3. Student assessment and school inspection
2. Alignment of curriculum contents and achievement standards with assessment procedures to create an accountability system for monitoring the efficiency and effectively (Hoy & Miskel, 2008; MoEYS, 2017);	
3. Use the results of the assessment for improving policies and the teaching and learning process, including the introduction of active learning methods (Fullan, 2007; MoEYS, 2017);	
1. Use of Education Strategic Plan to allocate financial resources by sub-sectors of education (UNESCO, 1989; MoEYS, 2017);	3.1 Education financial allocation linking budget to education policies;
2. Introduction of Result-based management (MoEYS, 2017);	
3. Strengthen the monitoring and evaluation mechanism, which link school inputs to output, outcome and impact indicators (UNESCO, 1989; MoEYS, 2017);	
1. School directors have flexibility in using financial resources to ensure the basic conditions for learning, from providing school infrastructure to increasing spending on teaching and learning (Elmore, 2004; Hanushek & Woessmann, 2007; Hoy & Miskel, 2008; Bruns et al., 2011);	3.2 Financial autonomy and accountability of schools;
2. Build internal accountability (individual responsibility, collective expectations and accountability data are linked) linked to external accountability (external assessment and inspection) (Bruns et al., 2011);	
3. Parents and community hold school directors and teachers accountable for learning outcomes (UNESCO, 1989; Bruns et al., 2011; MoEYS, 2017);	
1. Adopt and implement Guidelines on School Improvement Funds (SIF) to link school inputs to outputs and outcome indicators (MoEYS, 2017);	3.3 Education budget audit.
2. Provide traning on school financial management to school administrators and education officials at all level;	

Characteristics of education management reform	Sub-components of education management reform
3. Develop and implement an Action Plan on school budget audit to encourage school to allocate more financial and human resources to achieve better learning outcomes;	
1. Attract competent persons into teaching profession by providing better financial and social benefits, diversifying entry points and reviewing conditions for the selection of teachers and school principals (UNESCO, 1989; MoEYS, 2017);	4.1 Preservice education;
2. Improve preservice (PRESET) training by reviewing teacher training curriculum, increasing preservice teacher qualifications from 12+2 to 12+4 for primary and lower secondary school teachers and upgrading teacher trainers' qualifications (Glewwe et al., 2014; MoEYS, 2017);	
3. Strengthen teacher management by integrating all data sources into a single Human Resource Information System, improving deployment policies and involving parents and community to participate in decision making over teachers and school matters (MoEYS, 2017);	
1. Adopt and implement the Policy on Continuous Professional Development (CPD) by incorporating on-site, irregular and regular training into a comprehensive inservice system (MoEYS, 2017);	4.2 Inservice training;
2. Cultivate a culture of life-long learning and sharing the experience and provide inservice training to existing teachers on new teaching methods and mentoring programs to improve education outcomes (Glewwe et al., 2014; MoEYS, 2017);	
3. Promotion of collaboration, use of effective practice, coaching and expert support for inservice teachers, including the establishment of Profesional Learning Communities (PLCs) (Bruns et al., 2011; MoEYS, 2017);;	
1. teachers are motivated and retained in the education system by providing incentives and awards, based on Teacher Professional Standards, providing professional development opportunities and implementation of the Teacher Career Pathway (TCP) (Fullan, 2007; Bruns et al., 2011; MoEYS, 2017);	4.3 Teacher performance assessment.
2. strengthening school leadership, based on School Director Standards, sharing best practices through the Community of Practitioners (COP) and improving the recruitment, selection and training of school directors (Glewwe et al., 2014; MoEYS, 2017);	
3. strengthening teacher monitoring and evaluation systems by creating a monitoring and evaluation mechanism, improving on-site monitoring through inspection, the use performance assessment for promotion and sanctions, expanding the professional capacities of individual teachers and sharing best practices through a coherent professional learning community (PLC) (UNESCO, 1989; Fullan, 2007; Bruns et al., 2011; MoEYS, 2017);	

Education Management Reform (Anson, 1994; Bruns, Filmer, & Patrinos, 2011; Elmore, 2004; Fullan, 2007; P. Glewwe, 2014; Hoy & Miskel, 2008; MoEYS, 2017; UNESCO, 1989):

1. Administrative and general management reform:
    1.1 Education policy and Strategic Plan;
    1.2 School-Based Management;
    1.3 Community involvement in school management.
2. Academic management reform
    2.1Education curriculum and textbooks;
    2.2 Learning and teaching process;
    2.3 Student assessment and school inspection.
3. Education finance management reform
    3.1 Education financial allocation linking budget to education policies;
    3.2 Financial autonomy and accountability of schools;
    3.3 Education budget audit.
4. Human Resource Management Reform
    4.1 Preservice education;
    4.2 In-service training;
    4.3 Teacher performance assessment.

Figure 8 Education Management Reform

The literature on quality citizenship provides the following characteristics of education management reform as specified in Table 10.

Table 10 Characteristics of Quality Citizenship

No	Key features of quality citizenship	Hanushek & Woessmann, 2008	OXFAM, 2015	Tawil, 2013	Torney-Purta et al., 2001	UNESCO, 2015a	UNESCO, 2015b	UNESCO, 2016
1	Knowledge and understanding	✓				✓	✓	✓
2	Ability for lifelong learning and learning how to learn, for making good judgement, questioning to create new knowledge, metacognition	✓	✓			✓	✓	✓
3	Media and information literacy (ability to obtain and analyse information through ICT, ability to critically evaluate information and media content, ethical use of ICT)		✓			✓	✓	✓
4	Critical and innovative thinking (creativity, entrepreneurship, resourcefulness, application skills, reflective thinking, reasoned decision-making) skills	✓	✓			✓	✓	✓
5	Interpersonal (communication, organization, teamwork, collaboration, empathy, compassion) skills	✓	✓			✓	✓	✓

No	Key features of quality citizenship	Hanushek & Woessmann, 2008	OXFAM, 2015	Tawil, 2013	Torney-Purta et al., 2001	UNESCO, 2015a	UNESCO, 2015b	UNESCO, 2016
6	Intrapersonal (self-discipline, ability to learn independently, flexibility and adaptability, self-awareness, perseverance, self-motivation, compassion, integrity, self-respect) skills	✓	✓			✓	✓	✓
7	Legal and social entitlement and obligations			✓	✓			
8	Questioned citizen, obedience to law, patriotism		✓		✓			
9	Advocacy and trust in elected officials		✓		✓			
10	A sense of shared destiny		✓	✓		✓	✓	
11	Social concern, social justice, active and responsible participation in community affairs		✓	✓		✓	✓	
12	Participation in environmental protection		✓	✓		✓	✓	
13	National identity and membership in political parties		✓		✓			
14	Voting in elections				✓			
15	Responsibility to be an informed voter			✓				
16	Become aware of the global challenges		✓	✓		✓	✓	
17	Sustainable management of natural resources, climate change, conservation of cultural, economic and natural heritage		✓	✓		✓	✓	
18	Global terrorism and global conflicts		✓	✓		✓	✓	
19	Fundamental human rights and responsibilities		✓	✓	✓	✓	✓	
20	A sense of belonging to a common humanity, sharing values and responsibilities		✓	✓	✓	✓	✓	
21	Respect for differences and diversity		✓	✓	✓	✓	✓	
22	Action at local, national and global level for a more peaceful and sustainable world		✓	✓	✓	✓	✓	
23	Peaceful, tolerant, inclusive and sustainable world		✓	✓	✓	✓	✓	
24	A social and ethical obligation to fight against patterns of extremism, radicalism, racism, and/ or extreme nationalism		✓	✓	✓	✓	✓	
25	Education to help resolve global issues in their social, political, cultural, economic and environmental dimensions		✓	✓	✓	✓	✓	
26	Education to help learners promote international cooperation and social transformation		✓	✓	✓	✓	✓	
27	Education to help learners to become an informed, engaged, responsive and responsible global citizens		✓	✓	✓	✓	✓	

Table 11 Sub-components of Quality Citizenship

Sub-components	Components

1. Quality of good national citizen:	
1.1 Economic component:	
1. Knowledge and understanding	(1) Knowledge and hard skills;
2. Ability for lifelong learning and learning how to learn, for making good judgement, questioning to create new knowledge, metacognition	
3. Media and information literacy (ability to obtain and analyse information through ICT, ability to critically evaluate information and media content, ethical use of ICT)	
1. Critical and innovative thinking (creativity, entrepreneurship, resourcefulness, application skills, reflective thinking, reasoned decision-making) skills	(2) Soft and life skills;
2. Interpersonal (communication, organization, teamwork, collaboration, empathy, compassion) skills	
3. Intrapersonal (self-discipline, ability to learn independently, flexibility and adaptability, self-awareness, perseverance, self-motivation, compassion, integrity, self-respect) skills	
1.2 Socio-political component:	
1. Legal and social entitlement and obligations	(1) Respect the law and order;
2. Questioned citizen, obedience to law, patriotism	
3. Advocacy and trust in elected officials	
1. A sense of shared destiny	(2) Community and sustainable development;
2. Social concern, social justice, active and responsible participation in community affairs	
3. Participation in environmental projection	
1. National identity and membership in political parties	(3) Participation in political activities.
2. Voting in elections	
3. Responsibility to be an informed voter	
2. Quality of good global citizen:	
2.1 Economic component:	
1. Become aware of the global challenges	(1) Recognition of global issues;
2. Sustainable management of natural resources, climate change, conservation of cultural, economic and natural heritage	
3. Global terrorism and global conflicts	
1. Fundamental human rights and responsibilities	(2) Respect for diversity and human values;
2. A sense of belonging to a common humanity, sharing values and responsibilities	
3. Respect for differences and diversity	
2.2 Socio-political component:	
1. Action at local, national and global level for a more peaceful and sustainable world	(1) Make the world a better place
2. Peaceful, tolerant, inclusive and sustainable world	
3. A social and ethical obligation to fight against patterns of extremism, radicalism, racism, and/ or extreme nationalism	
1. Education to help resolve global issues in their social, political, cultural, economic and environmental dimensions	(2) Responsibility for their actions
2. Education to help learners promote international cooperation and social transformation (UNESCO, 2015a);	
3. Education to help learners to become an informed, engaged, responsive and responsible global citizens	

Quality Citizenship (OXFAM, 2015; UNESCO, 2014, 2015a):
  1. Quality of good national citizen:
   1.1 Economic component:
   (1) Knowledge and hard skills;
   (2) Soft and life skills;
   1.2 Socio-political component:
   (1) Respect the law and order;
   (2) Community and sustainable development;
   (3) Participation in political activities.
  2. Quality of good global citizen:
   2.1 Economic component:
   (1) Recognition of global issues;
   (2) Respect for diversity and human values;
   2.2 Socio-political component:
   (1) Make the world a better place
   (2) Responsibility for their actions

Figure 9 Quality Citizenship

4.1.2. Evaluation of conceptual framework by experts

Five education experts examined individually the suitability of the conceptual framework. The results of the evaluation are described in the Tables 12-13 as follows:

Table 12: Evaluation of conceptual framework related to Education Management Reform Strategies by experts

Education Management Reform	Suitability		Should be modified	
	Number	Percent	Number	Percent
1. Administrative and general management reform:	5	100.0	0	0.00
1.1 Education policy and Strategic Plan enhances the quality citizenship in Cambodia	5	100.0	0	0.00
1.2 School-Based Management enhances the quality citizenship in Cambodia	5	100.0	0	0.00
1.3 Community involvement enhances the quality citizenship in Cambodia	5	100.0	0	0.00
2. Academic management reform	5	100.0	0	0.00
2.1 Integrating Good Citizenship Education into school curriculum and textbooks enhances the quality citizenship in Cambodia	5	100.0	0	0.00
2.2 Improving learning and teaching process enhances the quality citizenship in Cambodia	5	100.0	0	0.00
2.3 Student assessment enhances the quality citizenship in Cambodia	5	100.0	0	0.00

Education Management Reform	Suitability		Should be modified	
	Number	Percent	Number	Percent
3. Education finance management reform	5	100.0	0	0.00
3.1 Increased financial allocation linking budget to education policies enhances the quality citizenship in Cambodia	5	100.0	0	0.00
3.2 Increased financial autonomy and accountability of schools enhances the quality citizenship in Cambodia	5	100.0	0	0.00
3.3 Education budget audit enhances the quality citizenship in Cambodia	5	100.0	0	0.00
4. Personnel Management Reform	5	100.0	0	0.00
4.1 Increasing PRESET teacher qualifications enhances the quality citizenship in Cambodia	5	100.0	0	0.00
4.2 Providing INSET teacher training enhances the quality citizenship in Cambodia	5	100.0	0	0.00
4.3 Implementation of teacher performance assessment enhances the quality citizenship in Cambodia	5	100.0	0	0.00
Total		100.0		0.00

In the overview, Table 12 confirms that the conceptual framework, related to the education management reform components, has suitability at 100%.

Table 13: Evaluation of conceptual framework related to the components of Quality Citizenship by experts

The key components of quality citizenship	Suitability		Should be modified	
	Number	Percent	Number	Percent
1. Quality of good national citizen	5	100.0	0	0.00
1.1 Economic component:	5	100.0	0	0.00
(1) Knowledge and hard skills	5	100.0	0	0.00
(2) Soft and life skills	5	100.0	0	0.00
1.2 Socio-political component:	5	100.0	0	0.00
(1) Respect the law and order	5	100.0	0	0.00
(2) Community and sustainable development	5	100.0	0	0.00
(3) Participation in political activities	5	100.0	0	0.00
2. Quality of good global citizen:	5	100.0	0	0.00

The key components of quality citizenship	Suitability		Should be modified	
	Number	Percent	Number	Percent
2.1 Economic component:	5	100.0	0	0.00
(1) Recognition of global issues	5	100.0	0	0.00
(2) Respect for diversity and human values	5	100.0	0	0.00
2.2 Socio-political component:	5	100.0	0	0.00
(1) Make the world a better place	5	100.0	0	0.00
(2) Responsibility for their actions	5	100.0	0	0.00
Total		100.0		0.00

In the overview, Table 13 indicates that the conceptual framework, related to the components of Quality Citizenship, has suitability and feasibility at 100%.

Table 14 Reliability of research instruments

Sub-component of research instrument	Items	Reliability Coefficients
Administrative and General Management Reform	3	.941
Academic Management Reform	3	.958
Education Finance Management Reform	3	.860
Personnel Management Reform	3	.944
Politics (Political Situation and National Policy)	12	.978
Economy (such as the increasing of GDP, education budget, teacher salary, the income of student parents etc.)	12	.983
Society (such as the way of life of Cambodian people, family relationship, social security, parent involvement in school management, school context change and local culture of school)	12	.985
Technology (the rapidly changing technology in educational material and appliances, the development in e-books, online database, etc.)	12	.985

4.2 The current and desirable states of the education management reform for enhancing the quality citizenship in Cambodia

The results of data analysis of the current and desirable states of education management reform for enhancing the quality citizenship consist of the following three parts:

4.2.1 Personal details of informants and data of sample schools

4.2.2 The current and desirable states of the education management reform for enhancing the quality citizenship in Cambodia identified from the analysis of the internal environment

4.2.3 The current and desirable states of the education management reform for enhancing the quality citizenship in Cambodia identified from the analysis of the external environment.

4.2.1 Personal details of informants and data of sample schools

Table 15: Number and Percentage of Informants

		Total (N = 689)	
		Number	**Percentage**
Current Status	Policy Makers	10	1.40
	Directors and Deputy Directors	30	4.20
	Development Partners	60	8.50
	School Administrators	80	11.30
	Teachers	150	21.10
	School Support Committees	80	11.30
	Students	300	42.20
Total		710	100.00
Gender	Male	445	62.70
	Female	265	37.30
Total			
Age	Below 30	335	47.20
	30-40	132	18.60
	41-50	137	19.30
	51-60	106	14.90
Total			
Highest level of education	Below Bachelor	373	52.50
	Bachelor	192	27.00
	Master	127	17.90
	Doctor	18	2.60
Total			
Length of time in current position	Below 3 years	76	9.3
	3-5 years	64	9.3
	6-8 years	58	8.5
	9-11 years	45	6.5
	Higher than 11 years	162	23.1
	Missing	305	43.3
Total			

The table 15 indicates that there are 710 informants, consisting of 10 education policymakers, 30 Directors of MoEYS departments, 60 members of the Development Partners and NGOs, 80 school administrators, 150 teachers, 80 School Support Committee members, and 300 students. The biggest group of informants, 335 people, aged below 30 years old, accounts for 47.2% of all the respondents. This followed by the informants aged between 41-50 years old, that accounts for 19.3% of informants, followed by the informants aged between 30-41 years old, that accounts for 18.6% of all informants, and the informants aged between 51-60 years old, that accounts for 14.9% respectively. Some 373 or 52.5% of all the informants have lower than Bachelor's Degree as their highest level of education, followed by 27.0% of respondents who have Bachelor's Degree, 17.9% of respondents who have Master's Degree, and only 2.6% of the respondents who have PhD degree, respectively. 305 or 43.3% of respondents, who are primarily students did not report their education level. The biggest group of informants have served the longest in the current position. There are 162 informants in this group or 23.1% of all the informants, who have served more than 11 years. The other groups have served less than 3 years (9.3%), between 3-5 years (9.3%), between 6-8 years (8.5%) and 9-11 years (6.5%) respectively in the current position. In the category of length of time in the current position, 43.3% of respondents, who were mainly students, did not report as they had never worked before.

4.2.2 The current and desirable states of the education management reform for enhancing the quality citizenship in Cambodia identified from the analysis of the internal environment

Table 16: The current and desirable states of the overall education management reform for enhancing the quality citizenship in Cambodia from the analysis of the internal environment

Education management reform for enhancing the quality citizenship in Cambodia	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
1- Administrative management reform	3.12	0.61	Middle	3	4.26	0.53	High	3
2- Academic management reform	3.16	0.65	Middle	2	4.31	0.56	High	2
3- Education finance management reform	3.04	0.69	Middle	4	4.22	0.64	High	4
4- Human resources management reform	3.19	0.66	Middle	1	4.33	0.57	High	1
Overall	3.13	0.61	Middle		4.28	0.53	High	

Table 16 provides analysis of the internal environment. The findings shows that the current state of education management reform for enhancing quality citizenship in Cambodia is at a middle level (mean = 3.13, S.D = 0.61). Human resources management reform for good citizenship has the highest mean value (mean = 3.19, S.D = 0.66), followed by the academic management reform (mean = 3.16, S.D = 0.65), administrative management reform (mean = 3.12, S.D = 0.61), and Education finance management reform (mean = 3.04, S.D = 0.69), respectively.

The findings also indicate that the desirable state of education management reform for enhancing quality citizenship in Cambodia is at the high level (mean = 4.28, S.D = 0.53). Human resources management reform for good citizenship has the highest mean value (mean = 4.33, S.D = 0.57), followed by the academic management reform (mean = 4.31, S.D = 0.56), administrative management reform (mean = 4.26, S.D = 0.53), and Education finance management reform (mean = 4.22, S.D = 0.64), respectively.

The current and desirable states of the education management reform for enhancing the quality citizenship in Cambodia identified from the internal environment can be analysed by using graph as follows:
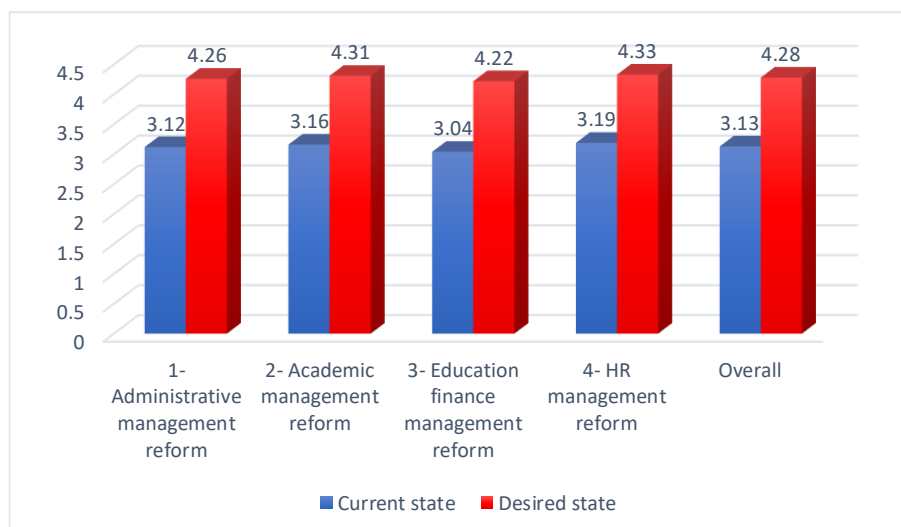
Figure 10. The analysis of the current and desirable states of the education management reform for enhancing the quality citizenship in Cambodia identified from the internal environment.

Table 17: The current and desirable states of Administrative and General Management Reform for enhancing quality citizenship in Cambodia

Administrative and general management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
1. Education policy and Strategic Plan	3.17	0.61	Middle	1	4.27	0.54	High	3
1.1 Quality of good national citizen	3.16	0.65	Middle		4.30	0.56	High	
1.1.1 Economic component	3.16	0.67	Middle		4.31	0.72	High	
(1) Knowledge and hard skills	3.23	0.72	Middle	(4)	4.34	0.68	High	(4)
(2) Soft and life skills	3.09	0.81	Middle	(7)	4.27	0.75	High	(6)
1.1.2 Socio-political component	3.08	0.91	Middle		4.19	0.80	High	
(1) Respect the law and order	3.37	0.85	Middle	(3)	4.44	0.73	High	(2)
(2) Community and sustainable development	3.14	0.87	Middle	(6)	4.25	0.74	High	(7)
(3) Participation in political activities	2.72	1.01	Middle	(9)	3.88	0.92	High	(9)
1.2 Quality of good global citizen	3.21	0.83	Middle		4.31	0.73	High	
1.2.1 Economic component	3.18	0.85	Middle		4.25	0.78	High	
(1) Recognition of global issues	2.93	0.89	Middle	(8)	4.06	0.84	High	(8)
(2) Respect for diversity and human values	3.42	0.81	Middle	(2)	4.44	0.71	High	(3)

Administrative and general management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
1.1.2 Socio-political component	3.25	0.80	Middle		4.36	0.68	High	
(1) Make the world a better place	3.15	0.88	Middle	(5)	4.29	0.77	High	(5)
(2) Responsibility for their actions	3.44	0.88	Middle	(1)	4.50	0.72	Highest	(1)
2. School-Based Management	3.16	0.65	Middle	2	4.30	0.56	High	2
2.1 Quality of good national citizen	3.22	0.83	Middle		4.37	0.71	High	
2.1.1 Economic component	3.19	0.80	Middle		4.35	0.71	High	
(1) Knowledge and hard skills	3.23	0.79	Middle	(4)	4.38	0.69	High	(4)
(2) Soft and life skills	3.14	0.81	Middle	(6)	4.32	0.73	High	(5)
2.1.2 Socio-political component	3.26	0.86			4.38	0.71	High	
(1) Respect the law and order	3.41	0.87	Middle	(2)	4.49	0.68	High	(2)
(2) Community and sustainable development	3.11	0.86	Middle	(7)	4.27	0.74	High	(7)
(3) Participation in political activities.	2.66	0.98	Middle	(9)	3.85	0.97	High	(9)
2.2 Quality of good global citizen	3.19	0.84	Middle		4.33	0.71	High	
2.2.1 Economic component	3.17	0.86	Middle		4.27	0.76	High	
(1) Recognition of global issues	2.95	0.88	Middle	(8)	4.10	0.79	High	(8)
(2) Respect for diversity and human values	3.39	0.83	Middle	(3)	4.44	0.72	High	(3)
2.2.2 Socio-political component	3.22	0.82	Middle		4.39	0.67	High	
(1) Make the world a better place	3.18	0.87	Middle	(5)	4.30	0.75	High	(6)
(2) Responsibility for their actions	3.45	0.87	Middle	(1)	4.55	0.68	Highest	(1)
3. Community involvement	3.02	0.73	Middle	3	4.33	0.57	High	1
3.1 Quality of good national citizen	2.97	0.91	Middle		4.17	0.81	High	
3.1.1 Economic component	2.94	0.89	Middle		4.17	0.79	High	
1.3.1 Knowledge and hard skills	2.89	0.91	Middle	(7)	4.15	0.80	High	(7)
1.3.2 Soft and life skills	2.98	0.87	Middle	(6)	4.18	0.77	High	(6)
3.1.2 Socio-political component	3.00	0.93			4.18	0.83	High	
(1) Respect the law and order	3.21	0.91	Middle	(3)	4.38	0.76	High	(2)

Administrative and general management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
(2) Community and sustainable development	3.09	0.88	Middle	(4)	4.26	0.76	High	(4)
(3) Participation in political activities.	2.70	0.99	Middle	(9)	3.90	0.96	High	(9)
3.2 Quality of good global citizen	2.97	0.91	Middle		4.17	0.81	High	
3.2.1 Economic component	2.94	0.89	Middle		4.17	0.79	High	
(1) Recognition of global issues	2.83	0.90	Middle	(8)	4.04	0.83	High	(8)
(2) Respect for diversity and human values	3.25	0.91	Middle	(1)	4.36	0.76	High	(3)
3.2.2 Socio-political component	3.00	0.93	Middle		4.18	0.83	High	
(1) Make the world a better place	3.09	0.94	Middle	(4)	4.26	0.80	High	(4)
(2) Responsibility for their actions	3.25	0.92	Middle	(1)	4.44	0.73	High	(1)

Based on the analysis of the administrative and general management reform of the internal environment, the findings show that the current state of education management reform for enhancing quality citizenship in Cambodia is at a middle level (mean = 3.12, S.D = 0.61). If we consider each aspect of this component, Education policy and Strategic Plan for good citizenship has the highest mean value (mean = 3.17, S.D = 0.61), followed by School-Based Management (mean = 3.16, S.D = 0.65), and Community involvement (mean = 3.02, S.D = 0.73), respectively.

Based on the analysis of the analysis of the administrative and general management reform of the internal environment, the desirable state of education management reform for enhancing quality citizenship in Cambodia is at the high level (mean = 4.26, S.D = 0.53). Community involvement has the highest mean value (mean = 4.33, S.D = 0.57), then it is followed by the School-Based Management (mean = 4.30, S.D = 0.56), and Education policy and Strategic plan (mean = 4.27, S.D = 0.54), respectively. In terms of the component of the quality citizenship, responsibility of their actions has the highest mean value of up to 4.55, as the respondents want the schools produce responsible and engaged citizen.

Figure 11 The comparison of current and desirable states of Administrative and
General Management Reform for enhancing the quality citizenship in Cambodia.

Table 18: The current and desirable states of Academic Management Reform for
enhancing quality citizenship in Cambodia

Academic management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
1. Education curriculum and textbooks	3.21	0.65	Middle	1	4.33	0.57	High	2
1.1 Quality of good national citizen	3.19	0.84	Middle		4.32	0.75	High	
1.1.1 Economic component	3.27	0.81	Middle		4.39	0.71	High	
(1) Knowledge and hard skills	3.26	0.80	Middle	(5)	4.40	0.72	High	(4)
(2) Soft and life skills	3.27	0.81	Middle	(4)	4.38	0.69	High	(5)
1.1.2 Socio-political component	3.11	0.87	Middle		4.24	0.79	High	
(1) Respect the law and order	3.39	0.83	Middle	(2)	4.49	0.69	High	(2)
(2) Community and sustainable development	3.18	0.84	Middle	(7)	4.32	0.72	High	(6)
(3) Participation in political activities.	2.76	0.94	Middle	(9)	3.92	0.97	High	(9)
2.2 Quality of good global citizen	3.24	0.82	Middle		4.35	0.71	High	
2.2.1 Economic component	3.19	0.85	Middle		4.315	0.75	High	
(1) Recognition of global issues	3.02	0.88	Middle	(8)	4.17	0.80	High	(8)
(2) Respect for diversity and human values	3.36	0.82	Middle	(3)	4.46	0.70	High	(3)
2.2.2 Socio-political component	3.29	0.80	Middle		4.39	0.66	High	
(1) Make the world a better place	3.21	0.87	Middle	(6)	4.31	0.72	High	(7)
(2) Responsibility for their actions	3.46	0.84	Middle	(1)	4.53	0.68	Highest	(1)

Academic management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
2. Learning and teaching process	3.21	0.68	Middle	1	4.34	0.58	High	1
2.1 Quality of good national citizen	3.24	0.82	Middle		4.35	0.71	High	
2.1.1 Economic component	3.19	0.85	Middle		4.32	0.75	High	
(1) Knowledge and hard skills	3.26	0.82	Middle	(5)	4.42	.71	High	(4)
(2) Soft and life skills	3.29	0.81	Middle	(4)	4.40	.72	High	(5)
2.1.2 Socio-political component	3.29	0.80	Middle		4.39	0.66	High	
(1) Respect the law and order	3.39	0.83	Middle	(3)	4.48	.70	High	(3)
(2) Community and sustainable development	3.15	0.86	Middle	(7)	4.29	.72	High	(7)
(3) Participation in political activities	2.74	0.93	Middle	(9)	3.91	.97	High	(9)
2.2 Quality of good global citizen	3.18	0.84	Middle		4.32	0.76	High	
2.2.1 Economic component	3.28	0.82	Middle		4.41	0.72	High	
(1) Recognition of global issues	3.01	0.92	Middle	(8)	4.15	.82	High	(8)
(2) Respect for diversity and human values	3.41	0.84	Middle	(2)	4.50	.70	Highest	(2)
2.2.2 Socio-political component	3.09	0.87	Middle		4.23	0.80	High	
(1) Make the world a better place	3.20	0.88	Middle	(6)	4.35	.75	High	(6)
(2) Responsibility for their actions	3.46	0.89	Middle	(1)	4.56	.66	Highest	(1)
3. Student assessment	3.08	0.74	Middle	3	4.26	0.64	High	3
3.1 Quality of good national citizen	3.05	0.89	Middle		4.24	0.81	High	
3.1.1 Economic component	3.13	0.87	Middle		4.31	0.76	High	
(1) Knowledge and hard skills	3.12	0.87	Middle	(5)	4.32	0.75	High	(4)
(2) Soft and life skills	3.13	0.87	Middle	(4)	4.30	0.76	High	(5)
3.1.2 Socio-political component	2.97	0.92	Middle		4.17	0.86	High	
(1) Respect the law and order	3.26	0.88	Middle	(2)	4.41	0.77	High	(2)
(2) Community and sustainable development	3.03	0.88	Middle	(7)	4.24	0.79	High	(7)
(3) Participation in political activities	2.62	0.99	Middle	(9)	3.85	1.01	High	(9)
3.2 Quality of good global citizen	3.23	0.86	Middle		4.36	0.72	High	
3.2.1 Economic component	3.21	0.88	Middle		4.33	0.76	High	

Academic management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
(1) Recognition of global issues	2.88	0.95	Middle	(8)	4.07	0.89	High	(8)
(2) Respect for diversity and human values	3.25	0.89	Middle	(3)	4.37	0.76	High	(3)
3.2.2 Socio-political component	3.25	0.84	Middle		4.39	0.68	High	
(1) Make the world a better place	3.08	0.92	Middle	(6)	4.25	0.79	High	(6)
(2) Responsibility for their actions	3.32	0.93	Middle	(1)	4.49	0.74	High	(1)

Based on the analysis of the Academic management reform of the internal environment, the findings show that the current state of education management reform for enhancing quality citizenship in Cambodia is at a middle level (mean = 3.16, S.D = 0.65). If we consider each aspect of this component, the Learning and teaching process and Education curriculum and textbooks for good citizenship has the highest mean value (mean = 3.21, S.D = 0.68) and (mean = 3.21, S.D = 0.65) respectively, and followed by Student assessment (mean = 3.08, S.D = 0.74).

Based on the analysis of the analysis of the Academic management reform of the internal environment, the desirable state of education management reform for enhancing quality citizenship in Cambodia is at the high level (mean = 4.31, S.D = 0.56). Learning and teaching process has the highest mean value (mean = 4.34, S.D = 0.58), then it is followed by the Education curriculum and textbooks (mean = 4.33, S.D = 0.57), then student assessment (mean = 4.26, S.D = 0.64). In terms of the component of quality citizenship, responsibility for their actions (mean = 4.53) and respect for diversity and human values (mean = 4.50) have the highest mean value, as the respondents want schools to produce responsible citizen, who respect diversity and human values.
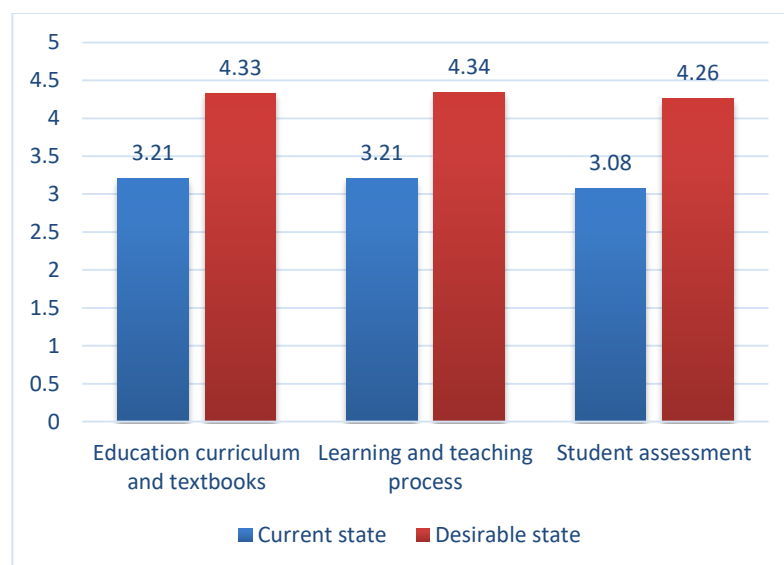
Figure 12 The comparison of current and desirable states of Academic Management Reform for enhancing the quality citizenship in Cambodia

Table 19: The current and desirable states of Education Finance Management Reform for enhancing quality citizenship in Cambodia

Finance management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
1. Education financial allocation linking budget to education policies	3.07	0.72	Middle	1	4.24	0.67	High	1
1.1 Quality of good national citizen	3.03	0.89	Middle		4.22	0.84	High	
1.1.1 Economic component	3.09	0.88	Middle		4.30	0.80	High	
(1) Knowledge and hard skills	3.09	0.89	Middle	(5)	4.32	0.78	High	(3)
(2) Soft and life skills	3.09	0.86	Middle	(5)	4.27	0.81	High	(6)
1.1.2 Socio-political component	2.96	0.90			4.15	0.88	High	
(1) Respect the law and order	3.13	0.86	Middle	(3)	4.30	0.80	High	(4)
(2) Community and sustainable development	3.06	0.86	Middle	(7)	4.23	0.82	High	(7)
(3) Participation in political activities.	2.69	0.98	Middle	(9)	3.91	1.01	High	(9)
2.2 Quality of good global citizen	3.12	0.87	Middle		4.27	0.80	High	
2.2.1 Economic component	3.09	0.91	Middle		4.24	0.85	High	
(1) Recognition of global issues	2.93	0.91	Middle	(8)	4.12	0.89	High	(8)
(2) Respect for diversity and human values	3.24	0.90	Middle	(2)	4.36	0.80	High	(2)
2.2.2 Socio-political component	3.15	0.83	Middle		4.31	0.75	High	

Finance management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
(1) Make the world a better place	3.12	0.88	Middle	(4)	4.28	0.80	High	(5)
(2) Responsibility for their actions	3.29	0.89	Middle	(1)	4.42	0.76	High	(1)
2. Increased financial autonomy and accountability of schools	3.04	0.73	Middle	2	4.22	0.68	High	2
2.1 Quality of good national citizen	3.08	0.87	Middle		4.25	0.80	High	
2.1.1 Economic component	3.06	0.90	Middle		4.23	0.84	High	
(1) Knowledge and hard skills	3.09	0.88	Middle	(4)	4.29	0.79	High	(4)
(2) Soft and life skills	3.09	0.88	Middle	(4)	4.26	0.77	High	(5)
2.1.2 Socio-political component	3.10	0.84	Middle		4.27	0.76	High	
(1) Respect the law and order	3.15	0.88	Middle	(3)	4.33	0.80	High	(3)
(2) Community and sustainable development	3.06	0.89	Middle	(6)	4.25	0.83	High	(6)
(3) Participation in political activities	2.67	0.99	Middle	(9)	3.85	1.03	High	(9)
2.2 Quality of good global citizen	3.03	0.90	Middle		4.21	0.83	High	
2.2.1 Economic component	3.09	0.88	Middle		4.28	0.78	High	
(1) Recognition of global issues	2.90	0.90	Middle	(8)	4.09	0.88	High	(8)
(2) Respect for diversity and human values	3.21	0.89	Middle	(2)	4.36	0.80	High	(2)
2.2.2 Socio-political component	2.96	0.92	Middle		4.14	0.89	High	
(1) Make the world a better place	3.02	0.88	Middle	(7)	4.19	0.87	High	(7)
(2) Responsibility for their actions	3.24	0.90	Middle	(1)	4.42	0.74	High	(1)
3. Education budget audit	3.03	0.74	Middle	3	4.20	0.68	High	3
3.1 Quality of good national citizen	3.00	0.89	Middle		4.16	0.84	High	
3.1.1 Economic component	3.05	0.86	Middle		4.23	0.81	High	
(1) Knowledge and hard skills	3.03	0.86	Middle	(7)	4.24	0.80	High	(4)
(2) Soft and life skills	3.06	0.85	Middle	(5)	4.21	0.81	High	(7)
3.1.2 Socio-political component	2.95	0.93	Middle		4.10	0.88	High	
(1) Respect the law and order	3.14	0.92	Middle	(3)	4.30	0.81	High	(3)
(2) Community and sustainable development	3.06	0.88	Middle	(5)	4.22	0.80	High	(6)
(3) Participation in political activities	2.64	0.99	Middle	(9)	3.79	1.03	High	(9)
3.2 Quality of good global citizen	3.09	0.91	Middle		4.25	0.82	High	

Finance management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
3.2.1 Economic component	3.02	0.92	Middle		4.2	0.85	High	
(1) Recognition of global issues	2.87	0.92	Middle	(8)	4.06	0.90	High	(8)
(2) Respect for diversity and human values	3.17	0.92	Middle	(2)	4.34	0.80	High	(2)
3.2.2 Socio-political component	3.16	0.90	Middle		4.31	0.79	High	
(1) Make the world a better place	3.08	0.91	Middle	(4)	4.24	0.80	High	(5)
(2) Responsibility for their actions	3.23	0.88	Middle	(1)	4.37	0.77	High	(1)

Based on the analysis of the Education Finance management reform of the internal environment, the findings show that the current state of education management reform for enhancing quality citizenship in Cambodia is at a middle level (mean = 3.04, S.D = 0.69). If we consider each aspect of this component, the Education financial allocation linking budget to education policies for good citizenship has the highest mean value (mean = 3.07, S.D = 0.72), followed by Increased financial autonomy and accountability of schools (mean = 3.04, S.D = 0.73), and Education budget audit (mean = 3.03, S.D = 0.74), respectively.

Based on the analysis of the analysis of the Education Finance management reform of the internal environment, the desirable state of education management reform for enhancing quality citizenship in Cambodia is at the high level (mean = 4.22, S.D = 0.64). Education financial allocation linking budget to education policies has the highest mean value (mean = 4.24, S.D = 0.67), then it is followed by Increased financial autonomy and accountability of schools (mean = 4.22, S.D = 0.68), and Education budget audit (mean = 4.20, S.D = 0.68), respectively.
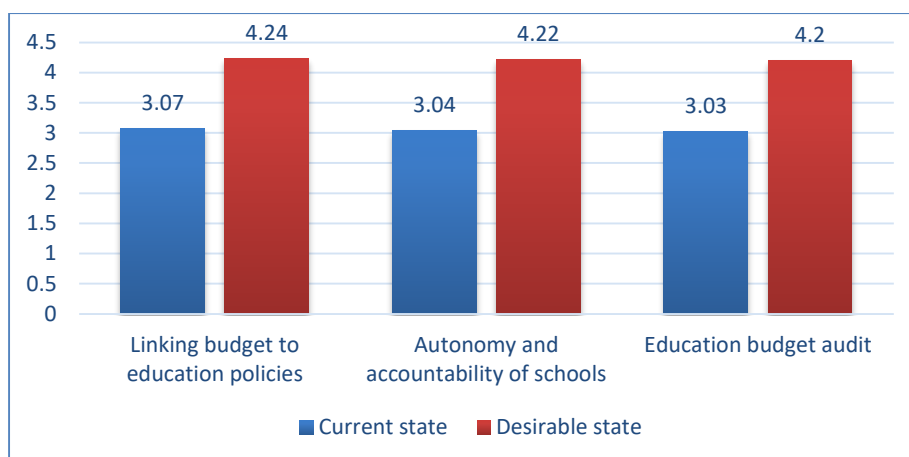
Figure 13 The comparison of current and desirable states of implementing Education Finance Management Reform for enhancing the quality citizenship in Cambodia

Table 20: The current and desirable states of Human Resources Management Reform for enhancing quality citizenship in Cambodia

HR management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
1. Increase teacher PRESET qualifications from 12+2 to 12+4	3.23	0.72	Middle	1	4.38	0.58	High	1
1.1 Quality of good national citizen	3.22	0.86	Middle		4.39	0.73	High	
1.1.1 Economic component	3.34	0.83	Middle		4.50	0.66	High	
(1) Knowledge and hard skills	3.35	0.81	Middle	(4)	4.54	0.64	Highest	(2)
(2) Soft and life skills	3.32	0.84	Middle	(5)	4.46	0.68	High	(5)
1.1.2 Socio-political component	3.11	0.89	Middle		4.27	0.80	High	
(1) Respect the law and order	3.36	0.83	Middle	(3)	4.48	0.67	High	(4)
(2) Community and sustainable development	3.19	0.84	Middle	(7)	4.35	0.72	High	(7)
(3) Participation in political activities.	2.79	0.99	Middle	(9)	3.98	1.00	High	(9)
2.2 Quality of good global citizen	3.25	0.86	Middle		4.39	0.71	High	
2.2.1 Economic component	3.22	0.90	Middle		4.36	0.76	High	
(1) Recognition of global issues	3.05	0.92	Middle	(8)	4.22	0.83	High	(8)
(2) Respect for diversity and human values	3.39	0.87	Middle	(2)	4.50	0.68	Highest	(3)
2.2.2 Socio-political component	3.28	0.82	Middle		4.42	0.67	High	
(1) Make the world a better place	3.23	0.87	Middle	(6)	4.36	0.75	High	(6)

HR management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
(2) Responsibility for their actions	3.43	0.89	Middle	(1)	4.55	0.63	Highest	(1)
2. Providing INSET training	3.19	0.69	Middle	2	4.34	0.62	High	2
2.1 Quality of good national citizen	3.17	0.84	Middle		4.34	0.76	High	
2.1.1 Economic component	3.30	0.81	Middle		4.47	0.70	High	
(1) Knowledge and hard skills	3.33	0.80	Middle	(3)	4.52	0.67	High	(1)
(2) Soft and life skills	3.26	0.81	Middle	(5)	4.42	0.72	High	(5)
2.1.2 Socio-political component	3.04	0.87	Middle		4.21	0.82	High	
(1) Respect the law and order	3.30	0.85	Middle	(4)	4.47	0.70	High	(3)
(2) Community and sustainable development	3.07	0.83	Middle	(7)	4.26	0.76	High	(7)
(3) Participation in political activities	2.76	0.92	Middle	(9)	3.90	0.99	High	(9)
2.2 Quality of good global citizen	3.22	0.83	Middle		4.34	0.75	High	
2.2.1 Economic component	3.19	0.85	Middle		4.32	0.78	High	
(1) Recognition of global issues	3.02	0.87	Middle	(8)	4.21	0.82	High	(8)
(2) Respect for diversity and human values	3.36	0.83	Middle	(2)	4.43	0.74	High	(4)
2.2.2 Socio-political component	3.24	0.80	Middle		4.36	0.71	High	
(1) Make the world a better place	3.19	0.84	Middle	(6)	4.31	0.79	High	(6)
(2) Responsibility for their actions	3.38	0.87	Middle	(1)	4.50	0.71	Highest	(2)
3. Implementing teacher performance assessment	3.16	0.70	Middle	3	4.28	0.63	High	3
3.1 Quality of good national citizen	3.14	0.85	Middle		4.25	0.82	High	
3.1.1 Economic component	3.24	0.83	Middle		4.31	0.82	High	
(1) Knowledge and hard skills	3.27	0.83	Middle	(3)	4.31	0.88	High	(4)
(2) Soft and life skills	3.20	0.82	Middle	(5)	4.31	0.75	High	(4)
3.1.2 Socio-political component	3.04	0.88	Middle		4.19	0.83	High	
(1) Respect the law and order	3.25	0.85	Middle	(4)	4.40	0.72	High	(3)
(2) Community and sustainable development	3.14	0.84	Middle	(7)	4.27	0.77	High	(7)
(3) Participation in political activities	2.74	0.96	Middle	(9)	3.89	1.00	High	(9)

HR management reform	Current state				Desirable state			
	mean	S.D	Level	Order	mean	S.D	Level	Order
3.2 Quality of good global citizen	3.21	0.86	Middle		4.34	0.78	High	
3.2.1 Economic component	3.17	0.85	Middle		4.28	0.81	High	
(1) Recognition of global issues	2.99	0.86	Middle	(8)	4.14	0.86	High	(8)
(2) Respect for diversity and human values	3.34	0.84	Middle	(2)	4.42	0.75	High	(2)
3.2.2 Socio-political component	3.26	0.86	Middle		4.39	0.76	High	
(1) Make the world a better place	3.15	0.86	Middle	(6)	4.28	0.78	High	(6)
(2) Responsibility for their actions	3.37	0.86	Middle	(1)	4.50	0.74	Highest	(1)

Based on the analysis of the Human resources management reform of the internal environment, the findings show that the current state of education management reform for enhancing quality citizenship in Cambodia is at a middle level (mean = 3.19, S.D = 0.66). If we consider each aspect of this component, the Increase teacher PRESET qualifications from 12+2 to 12+4 for good citizenship has the highest mean value (mean = 3.23, S.D = 0.72), followed by providing INSET training (mean = 3.19, S.D = 0.69), and Implementing teacher performance assessment (mean = 3.16, S.D = 0.70), respectively.

Based on the analysis of the analysis of the Human resource management reform of the internal environment, the desirable state of education management reform for enhancing quality citizenship in Cambodia is at the highest level (mean = 4.33, S.D = 0.57). Increase teacher PRESET qualifications from 12+2 to 12+4 has the highest mean value (mean = 4.38, S.D = 0.58), then it is followed by providing INSET training (mean = 4.34, S.D = 0.62), and Implementing teacher performance assessment (mean = 4.28, S.D = 0.63), respectively. Responsibility for their actions has the highest mean value, as the respondents want schools to produce responsible citizen.

Figure 14 The comparison of current and desirable states of implementing HR Management Reform for enhancing the quality citizenship in Cambodia.

4.2.3 The current and desirable states of the education management reform for enhancing the quality citizenship in Cambodia identified from the analysis of the external environment

Table 21: The current and desirable states of overall education management reform for enhancing the quality citizenship in Cambodia from the analysis of the external environment

Education management reform for enhancing the quality citizenship in Cambodia		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
1-Admini-strative and general management reform	mean S.D Level	3.12 0.70 Middle	4.29 0.62 High	3.11 0.68 Middle	4.30 0.60 High	3.08 0.67 Middle	4.29 0.61 High	3.09 0.66 Middle	4.29 0.60 High	3.10 0.68 Middle	4.29 0.61 High
2-Academic management reform	mean S.D Level	3.18 0.70 Middle	4.34 0.60 High	3.15 0.66 Middle	4.32 0.60 High	3.13 0.66 Middle	4.30 0.59 High	3.10 0.69 Middle	4.30 0.62 High	3.14 0.68 Middle	4.32 0.60 High
3- Finance management reform	mean S.D Level	3.09 0.69 Middle	4.29 0.63 High	3.08 0.68 Middle	4.26 0.64 High	3.10 0.66 Middle	4.27 0.60 High	3.10 0.67 Middle	4.30 0.60 High	3.09 0.68 Middle	4.28 0.62 High
4- HR management reform	mean S.D Level	3.16 0.69 Middle	4.32 0.59 High	3.11 0.67 Middle	4.30 0.61 High	3.12 0.66 Middle	4.30 0.60 High	3.14 0.69 Middle	4.34 0.59 High	3.13 0.68 Middle	4.32 0.60 High
Overall	mean S.D Level	3.14 0.70 Middle 1	4.31 0.61 High 1	3.11 0.67 Middle 2	4.30 0.61 High 3	3.11 0.66 Middle 2	4.29 0.60 High 4	3.11 0.68 Middle 2	4.31 0.60 High 1	3.12 0.68 Middle e	4.30 0.61 High

From the analysis of the external environment, the findings indicate the overall picture of the current states of education management reform strategies for enhancing the quality citizenship in Cambodia is at a middle level (mean = 3.12, S.D = 0.68). When considering each aspect, the politics aspect has the highest mean value (mean = 3.14, S.D = 0.70), then followed by the technology (mean = 3.11, S.D = 0.68), with the economic aspect (mean = 3.11, S.D = 0.67) and the socio-cultural (mean = 3.11, S.D = 0.66) having the same mean value.

From the analysis of the external environment, the findings show the desirable state of education management reform for enhancing the quality citizenship in Cambodia is at the high level (mean = 4.30, S.D = 0.61). When considering each aspect, the politics aspect and technology has the highest mean value (mean = 4.31, S.D = 0.61) and (mean = 4.31, S.D = 0.60) respectively, followed by the economic aspect (mean = 4.30, S.D = 0.61) and the socio-cultural (mean = 4.29, S.D = 0.60) respectively.

The above analysis is portrayed in Figure 15 below.
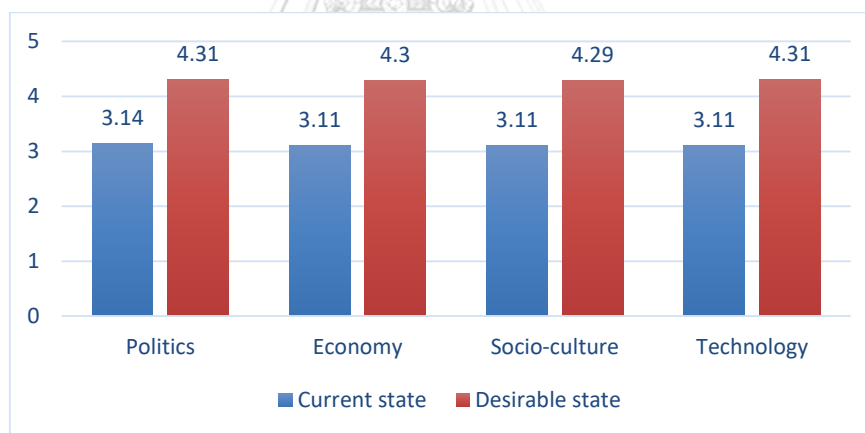
Figure 15 The comparison of current and desirable states of education management reform for enhancing the quality citizenship in Cambodia from the analysis of external environment

Table 22: The current and desirable states of administrative and general management reform for enhancing the quality citizenship in Cambodia obtained from the analysis of the external environment

Administrative and gneranal management reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
1. Education policy and Education Strategic Plan	mean	3.13	4.30	3.16	4.32	3.09	4.30	3.10	4.29	3.12	4.30
	S.D	0.73	0.65	0.69	0.62	0.69	0.62	0.68	0.62	0.70	0.63
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
1.1 Quality of good national citizen		3.10	4.28	3.14	4.31	3.07	4.29	3.06	4.28	3.09	4.29
1.1.1 Economic component	3.12	4.34	3.21	4.39	3.105	4.34	3.12	4.38	3.14	4.36	3.12
(1) Knowledge and hard skills		3.09	4.34	3.20	4.41	3.11	4.35	3.10	4.40	3.13	4.38
(2) Soft and life skills		3.15	4.34	3.22	4.37	3.10	4.33	3.14	4.36	3.15	4.35
1.1.2 Socio-political component		3.08	4.22	3.06	4.23	3.04	4.24	3.00	4.18	3.04	4.22
(1) Respect the law and order		3.25	4.39	3.25	4.42	3.21	4.41	3.12	4.30	3.21	4.38
(2) Community and sustainable development		3.13	4.28	3.09	4.28	3.08	4.29	3.06	4.28	3.09	4.28
(3) Participation in political activities.		2.85	4.00	2.85	4.00	2.82	4.02	2.82	3.96	2.84	4.00
1.2 Quality of good global citizen		3.19	4.3375	3.165	4.3625	3.1675	4.3775	3.1725	4.355	3.17	4.36
1.2.1 Economic component		3.14	4.28	3.08	4.35	3.15	4.38	3.12	4.30	3.12	4.33
(1) Recognition of global issues		3.01	4.17	3.07	4.42	3.21	4.41	3.02	4.22	3.08	4.31
(2) Respect for diversity and human values		3.26	4.38	3.09	4.28	3.08	4.34	3.22	4.38	3.16	4.35
1.2.2 Socio-political component		3.25	4.40	3.25	4.38	3.19	4.38	3.23	4.41	3.23	4.39
(1) Make the world a better place		3.19	4.33	3.17	4.30	3.12	4.29	3.17	4.35	3.16	4.32
(2) Responsibility for their actions		3.30	4.47	3.33	4.45	3.26	4.47	3.28	4.47	3.29	4.47

Administrative and gneranal management reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
2. School-Based management	mean	3.14	4.30	3.12	4.29	3.10	4.28	3.10	4.30	3.12	4.29
	S.D	0.72	0.63	0.70	0.63	0.69	0.63	0.69	0.62	0.70	0.63
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
2.1 Quality of good national citizen		3.12	4.29	3.08	4.26	3.07	4.25	3.07	4.27	3.09	4.27
2.1.1 Economic component		3.16	4.36	3.14	4.34	3.13	4.31	3.12	4.34	3.14	4.34
(1) Knowledge and hard skills		3.16	4.38	3.14	4.35	3.11	4.32	3.12	4.34	3.13	4.35
(2) Soft and life skills		3.17	4.35	3.15	4.33	3.15	4.30	3.13	4.34	3.15	4.33
2.1.2 Socio-political component		3.07	4.22	3.02	4.18	3.01	4.20	3.02	4.20	3.03	4.20
(1) Respect the law and order		3.27	4.44	3.22	4.37	3.17	4.36	3.20	4.36	3.22	4.38
(2) Community and sustainable development		3.10	4.27	3.09	4.27	3.07	4.26	3.07	4.25	3.08	4.26
(3) Participation in political activities.		2.84	3.96	2.76	3.89	2.78	3.97	2.78	3.99	2.79	3.95
2.2 Quality of good global citizen		3.19	4.32	3.19	4.34	3.15	4.31	3.16	4.34	3.17	4.33
2.2.1 Economic component		3.12	4.26	3.12	4.27	3.08	4.245	3.11	4.29	3.11	4.27
(1) Recognition of global issues		2.98	4.14	2.98	4.15	2.94	4.12	3.02	4.20	2.98	4.15
(2) Respect for diversity and human values		3.26	4.38	3.26	4.39	3.22	4.37	3.20	4.38	3.24	4.38
2.2.2 Socio-political component		3.26	4.385	3.25	4.4	3.22	4.38	3.205	4.395	3.23	4.39
(1) Make the world a better place		3.20	4.31	3.18	4.32	3.16	4.30	3.13	4.32	3.17	4.31
(2) Responsibility for their actions		3.32	4.46	3.32	4.48	3.28	4.46	3.28	4.47	3.30	4.47
3. Community involvement.	mean	3.08	4.25	3.08	4.28	3.07	4.28	3.08	4.29	3.08	4.28
	S.D	0.75	0.69	0.72	0.64	0.70	0.64	0.71	0.63	0.72	0.65

Administrative and gneranal management reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
3.1 Quality of good national citizen		3.03	4.21	3.04	4.25	3.04	4.25	3.05	4.28	3.04	4.25
3.1.1 Economic component		3.02	4.24	3.07	4.31	3.07	4.30	3.12	4.35	3.07	4.30
(1) Knowledge and hard skills		2.99	4.24	3.06	4.32	3.05	4.30	3.08	4.35	3.05	4.30
(2) Soft and life skills		3.05	4.23	3.08	4.29	3.08	4.30	3.15	4.35	3.09	4.29
3.1.2 Socio-political component		3.03	4.19	3.01	4.20	3.01	4.20	2.98	4.20	3.01	4.20
(1) Respect the law and order		3.20	4.36	3.17	4.37	3.15	4.35	3.10	4.31	3.16	4.35
(2) Community and sustainable development		3.11	4.26	3.04	4.25	3.06	4.27	3.03	4.30	3.06	4.27
(3) Participation in political activities.		2.79	3.96	2.81	3.99	2.83	3.99	2.80	4.00	2.81	3.99
3.2 Quality of good global citizen		3.14	4.30	3.15	4.33	3.13	4.32	3.15	4.34	3.14	4.32
3.2.1 Economic component		3.07	4.24	3.09	4.27	3.07	4.27	3.10	4.30	3.08	4.27
(1) Recognition of global issues		2.94	4.13	3.00	4.18	2.95	4.16	3.00	4.23	2.97	4.18
(2) Respect for diversity and human values		3.19	4.35	3.18	4.35	3.19	4.38	3.19	4.36	3.19	4.36
3.2.2 Socio-political component		3.22	4.37	3.20	4.39	3.18	4.38	3.20	4.39	3.20	4.38
(1) Make the world a better place		3.15	4.30	3.15	4.32	3.12	4.30	3.12	4.30	3.14	4.31
(2) Responsibility for their actions		3.28	4.43	3.25	4.46	3.24	4.45	3.27	4.48	3.26	4.46

From the analysis of the administrative and general management reform of the external environment, the findings indicate the overall picture of the current states of education management reform for enhancing the quality citizenship in Cambodia on the the administrative and general management reform is at a middle level (mean =

3.10, S.D = 0.68). When considering each aspect, the politics aspect has the highest mean value (mean = 3.12, S.D = 0.70), then the economic aspect (mean = 3.11, S.D = 0.68), the technology (mean = 3.09, S.D = 0.66) and the socio-cultural aspect (mean = 3.08, S.D = 0.67) respectively.

From the analysis of administrative and general management reform of the external environment, the findings show the desirable state of education management reform for enhancing the quality citizenship in Cambodia is at the high level (mean = 4.29, S.D = 0.61). When considering each aspect, the economic aspect has the highest mean value (mean = 4.30, S.D = 0.60), then followed by the politics aspect (mean = 4.29, S.D = 0.62), the sociocultural aspect (mean = 4.29, S.D = 0.61) and the technology (mean = 4.29, S.D = 0.60), all of which have the same mean value.
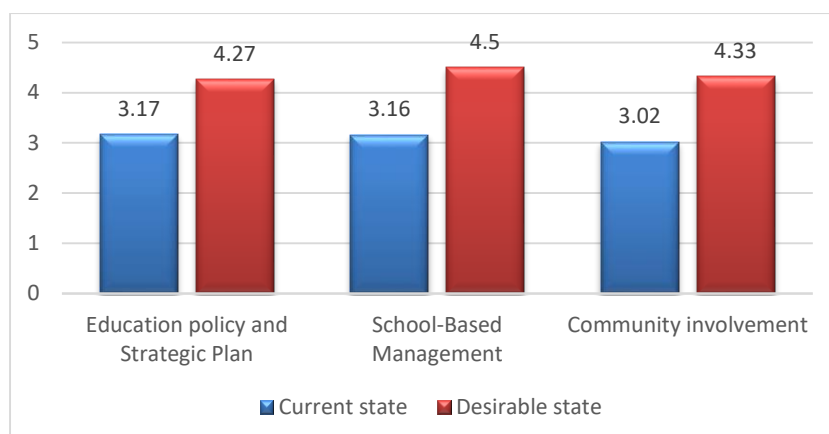
The above analysis can be illustrated in Figure 16.
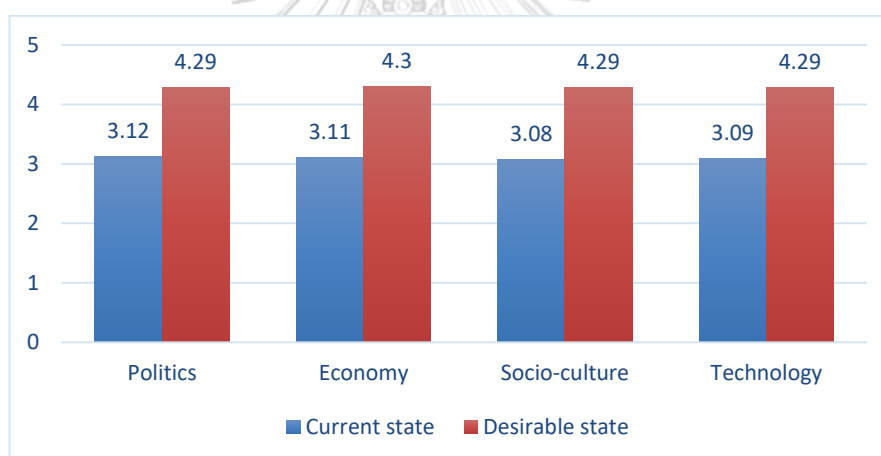
Figure 16 The comparison of current and desirable states of education management reform for enhancing the quality citizenship in Cambodia obtained from the external environment on the administrative management reform

Table 23:The current and desirable states of education management reform for enhancing the quality citizenship in Cambodia obtained from the analysis of the external environment on the Academic management reform

Academic management reform		External Environment									
		Policy		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
1. Education curriculum and textbooks	mean	3.22	4.36	3.18	4.33	3.14	4.31	3.11	4.28	3.16	4.32
	S.D	0.74	0.63	0.69	0.62	0.68	0.61	0.72	0.64	0.71	0.63
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
1.1 Quality of good		3.11	4.25	3.07	4.21	3.05	4.21	3.02	4.19	3.06	4.21

Academic management reform		External Environment									
		Policy		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
national citizen											
1.1.1 Economic component		3.33	4.46	3.31	4.44	3.24	4.42	3.24	4.39	3.28	4.43
(1) Knowledge and hard skills		3.26	4.38	3.22	4.36	3.17	4.34	3.16	4.31	3.20	4.35
(2) Soft and life skills		3.40	4.53	3.39	4.52	3.31	4.50	3.31	4.46	3.35	4.50
1.1.2 Socio-political component		2.88	4.05	2.83	3.97	2.86	4	2.81	3.99	2.85	4.00
(1) Respect the law and order		3.34	4.45	3.28	4.45	3.25	4.42	3.15	4.33	3.26	4.41
(2) Community and sustainable development		3.18	4.32	3.15	4.31	3.10	4.29	3.04	4.25	3.12	4.29
(3) Participation in political activities.		2.88	4.05	2.83	3.97	2.86	4.00	2.81	3.99	2.85	4.00
1.2 Quality of good global citizen		3.36	4.48	3.31	4.46	3.26	4.44	3.27	4.43	3.30	4.45
1.2.1 Economic component		3.19	4.32	3.14	4.31	3.10	4.30	3.11	4.29	3.13	4.30
(1) Recognition of global issues		3.01	4.17	3.00	4.19	2.96	4.19	3.00	4.20	2.99	4.19
(2) Respect for diversity and human values		3.36	4.47	3.28	4.43	3.24	4.41	3.22	4.37	3.28	4.42
1.2.2 Socio-political component		3.54	4.63	3.48	4.61	3.42	4.58	3.43	4.57	3.47	4.60
(1) Make the world a better place		3.26	4.38	3.22	4.36	3.17	4.34	3.16	4.31	3.20	4.35
(2) Responsibility for their actions		3.40	4.53	3.39	4.52	3.31	4.50	3.31	4.46	3.35	4.50
2. Learning and teaching process	mean	3.21	4.36	3.15	4.33	3.11	4.27	3.10	4.29	3.14	4.31
	S.D	0.74	0.63	0.69	0.61	0.68	0.63	0.72	0.65	0.71	0.63
	Level	Mid		Mid		Mid		Mid		Mid	
2.1 Quality of good national citizen		3.18	4.34	3.15	4.32	3.13	4.29	3.06	4.26	3.13	4.31

Academic management reform		External Environment									
		Policy		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
2.1.1 Economic component		3.23	4.40	3.21	4.39	3.19	4.37	3.10	4.33	3.18	4.37
(1) Knowledge and hard skills		3.19	4.36	3.19	4.39	3.17	4.35	3.08	4.35	3.16	4.36
(2) Soft and life skills		3.27	4.43	3.23	4.38	3.20	4.38	3.11	4.30	3.20	4.37
2.1.2 Socio-political component		3.12	4.29	3.09	4.26	3.07	4.22	3.02	4.20	3.07	4.24
(1) Respect the law and order		3.35	4.49	3.26	4.45	3.26	4.40	3.16	4.33	3.26	4.42
(2) Community and sustainable development		3.16	4.34	3.14	4.32	3.13	4.31	3.05	4.27	3.12	4.31
(3) Participation in political activities.		2.86	4.04	2.86	4.01	2.81	3.96	2.84	3.99	2.84	4.00
2.2 Quality of good global citizen		3.22	4.36	3.16	4.33	3.16	4.34	3.15	4.33	3.17	4.34
2.2.1 Economic component		3.18	4.33	3.12	4.29	3.11	4.29	3.12	4.29	3.13	4.30
(1) Recognition of global issues		2.99	4.17	3.01	4.17	2.99	4.18	3.03	4.20	3.01	4.18
(2) Respect for diversity and human values		3.36	4.48	3.23	4.41	3.23	4.39	3.21	4.38	3.26	4.42
2.2.2 Socio-political component		3.27	4.4	3.2	4.4	3.21	4.27	3.17	4.47	3.21	4.38
(1) Make the world a better place		3.28	4.39	3.16	4.31	3.17	4.34	3.14	4.34	3.19	4.35
(2) Responsibility for their actions		3.40	4.53	3.32	4.50	3.32	4.50	3.28	4.47	3.33	4.50
3. Conduct regular student assessment to ensure learning outcomes	mean	3.13	4.29	3.11	4.29	3.14	4.32	3.10	4.30	3.12	4.30
	S.D	0.72	0.64	0.68	0.65	0.68	0.61	0.70	0.63	0.70	0.63
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
3.1 Quality of good national citizen		3.09	4.26	3.08	4.26	3.08	4.25	3.08	4.28	3.08	4.26
3.1.1 Economic component		3.14	4.32	3.15	4.32	3.14	4.32	3.15	4.36	3.14	4.33

Academic management reform		External Environment									
		Policy		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
(1) Knowledge and hard skills		3.14	4.35	3.11	4.33	3.13	4.32	3.12	4.36	3.13	4.34
(2) Soft and life skills		3.14	4.28	3.18	4.30	3.15	4.32	3.17	4.35	3.16	4.31
3.1.2 Socio-political component		3.04	4.21	3.02	4.20	3.03	4.19	3.01	4.21	3.02	4.20
(1) Respect the law and order		3.28	4.42	3.20	4.38	3.20	4.34	3.16	4.34	3.21	4.37
(2) Community and sustainable development		3.07	4.26	3.07	4.25	3.08	4.26	3.04	4.28	3.07	4.26
(3) Participation in political activities.		2.77	3.95	2.78	3.96	2.80	3.96	2.82	4.00	2.79	3.97
3.2 Quality of good global citizen		3.27	4.42	3.24	4.40	3.22	4.38	3.20	4.41	3.23	4.40
3.2.1 Economic component		3.27	4.42	3.24	4.40	3.22	4.38	3.20	4.41	3.23	4.40
(1) Recognition of global issues		3.17	4.31	3.16	4.31	3.14	4.29	3.12	4.32	3.15	4.31
(2) Respect for diversity and human values		3.36	4.53	3.31	4.49	3.29	4.46	3.28	4.50	3.31	4.50
3.2.2 Socio-political component		3.27	4.42	3.24	4.40	3.22	4.38	3.20	4.41	3.23	4.40
(1) Make the world a better place		3.17	4.31	3.16	4.31	3.14	4.29	3.12	4.32	3.15	4.31
(2) Responsibility for their actions		3.36	4.53	3.31	4.49	3.29	4.46	3.28	4.50	3.31	4.50

From the analysis of the Academic management reform for Good Citizenship of the external environment, the findings indicate the overall picture of the current states of education management reform for enhancing the quality citizenship in Cambodia on the Academic management reform for Good Citizenship is at a middle level (mean = 3.14, S.D = 0.68). When considering each aspect, the politics aspect has the highest mean value (mean = 3.18, S.D = 0.70), then the economy (mean = 3.15, S.D = 0.66),

the socio-culture (mean = 3.13, S.D = 0.66) and the technology (mean = 3.10, S.D = 0.69) respectively.

From the analysis of the the Academic management reform for Good Citizenship of the external environment, the findings show the desirable state of education management reform for enhancing the quality citizenship in Cambodia is at the highest level (mean = 4.32, S.D = 0.60). When considering each aspect, the politics aspect has the highest mean value (mean = 4.34, S.D = 0.60), then the economy (mean = 4.32, S.D = 0.60), while the technology and and the socio-culture and the socio-culture have the same mean value of (mean = 4.30, S.D = 0.62) and of (mean = 4.30, S.D = 0.59) respectively.

The above analysis can be illustrated in Figure 17.
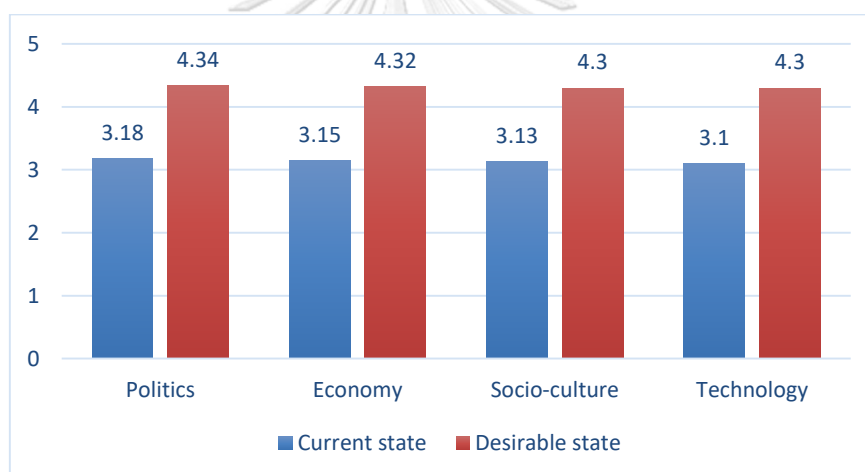
Figure 17 The comparison of current and desirable states of education management reform for enhancing the quality citizenship in Cambodia obtained from the external environment on the Academic management reform

Table 24: The current and desirable states of Education Finance Management Reform for enhancing the quality citizenship in Cambodia obtained from the analysis of the external environment

Education Finance Management Reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
1. Education financial allocation linking budget to education policies	mean	3.12	4.32	3.11	4.29	3.08	4.26	3.11	4.31	3.11	4.30
	S.D	0.72	0.64	0.70	0.63	0.71	0.64	0.69	0.62	0.71	0.63
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
1.1 Quality of good		3.09	4.30	3.08	4.28	3.11	4.29	3.07	4.27	3.09	4.36

Education Finance Management Reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
national citizen											
1.1.1 Economic component		3.14	4.38	3.14	4.36	3.16	4.37	3.12	4.33	3.14	4.38
(1) Knowledge and hard skills		3.14	4.40	3.16	4.38	3.14	4.38	3.14	4.36	3.15	4.33
(2) Soft and life skills		3.14	4.35	3.12	4.33	3.17	4.35	3.10	4.29	3.13	4.21
1.1.2 Socio-political component		3.04	4.22	3.01	4.20	3.07	4.22	3.03	4.21	3.04	4.37
(1) Respect the law and order		3.24	4.39	3.18	4.35	3.21	4.38	3.19	4.34	3.21	4.28
(2) Community and sustainable development		3.10	4.30	3.05	4.25	3.15	4.30	3.07	4.27	3.09	4.00
(3) Participation in political activities.		2.78	3.98	2.80	3.99	2.84	3.99	2.82	4.02	2.81	4.00
1.2 Quality of good global citizen		3.21	4.38	3.21	4.37	3.21	4.39	3.20	4.40	3.21	4.38
1.2.1 Economic component		3.23	4.41	3.24	4.40	3.24	4.42	3.23	4.42	3.23	4.41
(1) Recognition of global issues		3.16	4.32	3.16	4.31	3.18	4.35	3.15	4.35	3.16	4.33
(2) Respect for diversity and human values		3.30	4.49	3.31	4.48	3.30	4.48	3.30	4.49	3.30	4.49
1.2.2 Socio-political component		3.18	4.36	3.18	4.35	3.18	4.36	3.18	4.37	3.18	4.36
(1) Make the world a better place		3.16	4.32	3.16	4.31	3.18	4.35	3.15	4.35	3.16	4.33
(2) Responsibility for their actions		3.30	4.49	3.31	4.48	3.30	4.48	3.30	4.49	3.30	4.49
2. Increased financial autonomy and accountability of schools	mean	3.08	4.26	3.07	4.26	3.06	4.25	3.09	4.28	3.08	4.26
	S.D	0.73	0.67	0.72	0.67	0.69	0.64	0.69	0.62	0.71	0.65
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
2.1 Quality of good national citizen		3.05	4.24	3.03	4.23	3.04	4.23	3.06	4.26	3.05	4.24

Education Finance Management Reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
2.1.1 Economic component		3.09	4.29	3.09	4.29	3.09	4.30	3.13	4.34	3.10	4.30
(1) Knowledge and hard skills		3.07	4.31	3.07	4.28	3.07	4.31	3.11	4.34	3.08	4.31
(2) Soft and life skills		3.11	4.27	3.11	4.30	3.10	4.29	3.14	4.33	3.12	4.30
2.1.2 Socio-political component		3.00	4.18	2.98	4.17	3.00	4.16	3.00	4.18	2.99	4.17
(1) Respect the law and order		3.18	4.34	3.16	4.34	3.15	4.31	3.15	4.33	3.16	4.33
(2) Community and sustainable development		3.07	4.28	3.00	4.22	3.06	4.21	3.04	4.23	3.04	4.24
(3) Participation in political activities.		2.75	3.92	2.77	3.96	2.78	3.95	2.81	3.97	2.78	3.95
2.2 Quality of good global citizen		3.21	4.36	3.20	4.37	3.22	4.40	3.20	4.39	3.20	4.38
2.2.1 Economic component		3.21	4.36	3.20	4.37	3.22	4.40	3.20	4.39	3.20	4.38
(1) Recognition of global issues		3.12	4.27	3.12	4.29	3.15	4.32	3.11	4.32	3.13	4.30
(2) Respect for diversity and human values		3.29	4.45	3.27	4.44	3.28	4.47	3.28	4.45	3.28	4.45
2.2.2 Socio-political component		3.21	4.36	3.20	4.37	3.22	4.40	3.20	4.39	3.20	4.38
(1) Make the world a better place		3.12	4.27	3.12	4.29	3.15	4.32	3.11	4.32	3.13	4.30
(2) Responsibility for their actions		3.29	4.45	3.27	4.44	3.28	4.47	3.28	4.45	3.28	4.45
3. Introduce Education Budget Audit	mean	3.08	4.26	3.06	4.25	3.14	4.31	3.09	4.29	3.09	4.28
	S.D	0.73	0.66	0.71	0.68	0.68	0.63	0.70	0.63	0.71	0.65
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
3.1 Quality of good national citizen		3.05	4.23	3.03	4.24	3.04	4.24	3.06	4.27	3.04	4.24
3.1.1 Economic component		3.12	4.30	3.08	4.29	3.08	4.30	3.12	4.34	3.10	4.31

Education Finance Management Reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
(1) Knowledge and hard skills		3.12	4.32	3.08	4.31	3.08	4.31	3.13	4.39	3.10	4.33
(2) Soft and life skills		3.12	4.28	3.08	4.27	3.08	4.29	3.10	4.29	3.10	4.28
3.1.2 Socio-political component		2.98	4.16	2.98	4.18	2.99	4.17	3.00	4.20	2.99	4.18
(1) Respect the law and order		3.16	4.34	3.14	4.34	3.17	4.36	3.15	4.34	3.16	4.35
(2) Community and sustainable development		3.06	4.24	3.03	4.24	3.00	4.19	3.05	4.24	3.04	4.23
(3) Participation in political activities.		2.71	3.89	2.78	3.97	2.81	3.96	2.80	4.01	2.78	3.96
3.2 Quality of good global citizen		3.21	4.36	3.19	4.35	3.19	4.36	3.20	4.41	3.20	4.37
3.2.1 Economic component		3.21	4.36	3.19	4.35	3.19	4.36	3.20	4.41	3.20	4.37
(1) Recognition of global issues		3.11	4.27	3.10	4.26	3.12	4.28	3.14	4.32	3.12	4.28
(2) Respect for diversity and human values		3.30	4.45	3.27	4.43	3.26	4.43	3.26	4.49	3.27	4.45
3.2.2 Socio-political component		3.21	4.36	3.19	4.35	3.19	4.36	3.20	4.41	3.20	4.37
(1) Make the world a better place		3.11	4.27	3.10	4.26	3.12	4.28	3.14	4.32	3.12	4.28
(2) Responsibility for their actions		3.30	4.45	3.27	4.43	3.26	4.43	3.26	4.49	3.27	4.45

From the analysis of the Education Finance Management Reform of the external environment, the findings indicate the overall picture of the current states of education management reform for enhancing the quality citizenship in Cambodia on the Education Finance Management Reform is at a middle level (mean = 3.09, S.D = 0.68). When considering each aspect, the technology and the socio-culture aspect have the highest mean value (mean = 3.10, S.D = 0.67) and (mean = 3.10, S.D = 0.66),

respectively, then followed by the politics aspect (mean = 3.09, S.D = 0.69) and the economy (mean = 3.08, S.D = 0.68) respectively.

From the analysis of the Education Finance Management Reform of the external environment, the findings show the desirable state of education management reform for enhancing the quality citizenship in Cambodia is at the high level (mean = 4.28, S.D = 0.62). When considering each aspect, the technology aspect has the highest mean value (mean = 4.30, S.D = 0.60), then the politics (mean = 4.29, S.D = 0.63), the socio-culture (mean = 4.27, S.D = 0.60) and the economy (mean = 4.26, S.D = 0.64) respectively.
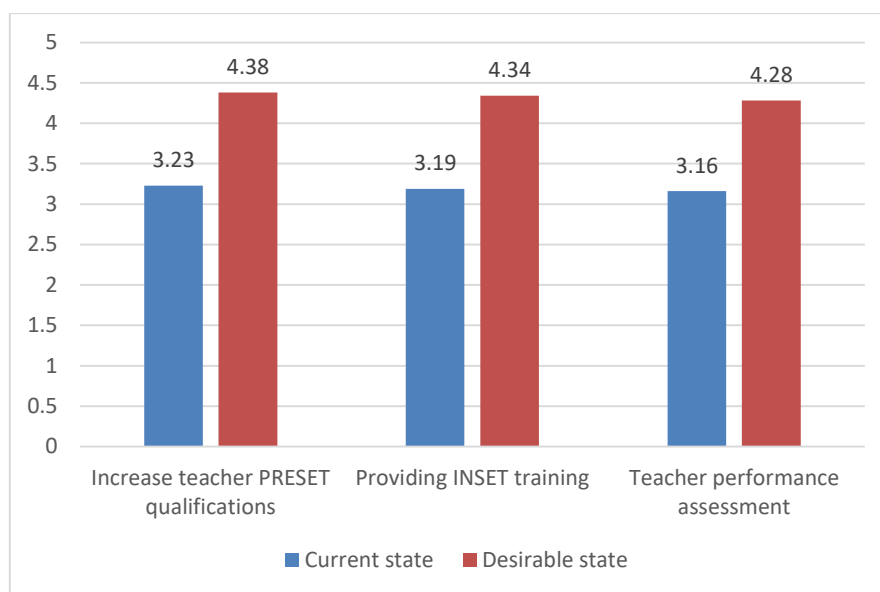
The above analysis can be illustrated in Figure 18.
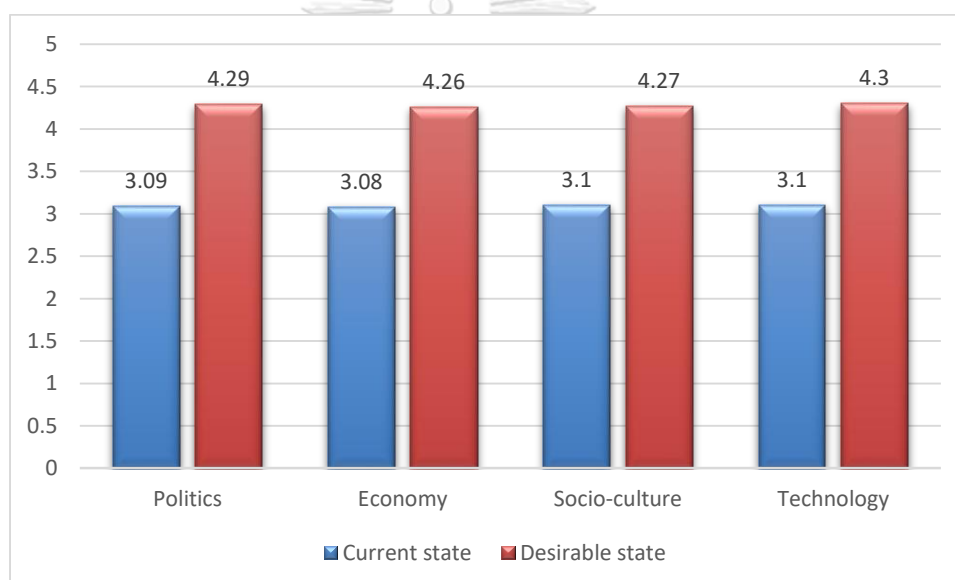
Figure 18 The comparison of current and desirable states of education management reform for enhancing the quality citizenship in Cambodia obtained from the external environment on the Education Finance Management Reform

Table 25: The current and desirable states of Human Resources Management Reform for enhancing the quality citizenship in Cambodia obtained from the analysis of the external environment

HR Management Reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
1. Increase PRESET teacher qualification from 12+2 to 12+4	mean	3.16	4.32	3.13	4.32	3.14	4.31	3.15	4.36	3.15	4.33
	S.D	0.72	0.62	0.72	0.63	0.68	0.63	0.72	0.61	0.71	0.62
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
1.1 Quality of good		3.14	4.32	3.11	4.32	3.12	4.30	3.11	4.34	3.12	4.32

HR Management Reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
national citizen											
1.1.1 Economic component		3.22	4.41	3.18	4.40	3.18	4.38	3.19	4.43	3.19	4.41
(1) Knowledge and hard skills		3.23	4.43	3.17	4.41	3.16	4.38	3.18	4.45	3.19	4.42
(2) Soft and life skills		3.21	4.39	3.18	4.39	3.20	4.38	3.19	4.41	3.20	4.39
1.1.2 Socio-political component		3.06	4.23	3.04	4.23	3.05	4.22	3.04	4.25	3.05	4.23
(1) Respect the law and order		3.25	4.42	3.21	4.40	3.22	4.38	3.20	4.39	3.22	4.40
(2) Community and sustainable development		3.11	4.29	3.09	4.30	3.11	4.29	3.08	4.30	3.10	4.30
(3) Participation in political activities.		2.82	3.98	2.81	4.00	2.83	3.99	2.85	4.05	2.83	4.01
1.2 Quality of good global citizen		3.30	4.41	3.26	4.40	3.25	4.42	3.26	4.45	3.26	4.42
1.2.1 Economic component		3.30	4.41	3.26	4.40	3.25	4.42	3.26	4.45	3.26	4.42
(1) Recognition of global issues		3.23	4.31	3.17	4.30	3.20	4.33	3.20	4.39	3.20	4.33
(2) Respect for diversity and human values		3.36	4.51	3.34	4.50	3.30	4.50	3.31	4.51	3.33	4.51
1.2.2 Socio-political component		3.30	4.41	3.26	4.40	3.25	4.42	3.26	4.45	3.26	4.42
(1) Make the world a better place		3.23	4.31	3.17	4.30	3.20	4.33	3.20	4.39	3.20	4.33
(2) Responsibility for their actions		3.36	4.51	3.34	4.50	3.30	4.50	3.31	4.51	3.33	4.51
2. Provide INSET	mean	3.18	4.33	3.11	4.31	3.12	4.30	3.13	4.33	3.14	4.32
	S.D	0.72	0.61	0.70	0.62	0.69	0.62	0.72	0.62	0.71	0.62
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
2.1 Quality of good national citizen		3.14	4.31	3.09	4.30	3.10	4.29	3.10	4.31	3.14	4.32

HR Management Reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
2.1.1 Economic component		3.21	4.39	3.17	4.39	3.17	4.38	3.17	4.39	3.14	4.32
(1) Knowledge and hard skills		3.20	4.42	3.17	4.41	3.16	4.39	3.17	4.42	3.14	4.32
(2) Soft and life skills		3.21	4.36	3.17	4.37	3.17	4.36	3.16	4.35	3.14	4.32
2.1.2 Socio-political component		3.07	4.24	3.02	4.20	3.03	4.21	3.04	4.23	3.14	4.32
(1) Respect the law and order		3.25	4.41	3.19	4.36	3.22	4.39	3.20	4.37	3.14	4.32
(2) Community and sustainable development		3.15	4.30	3.07	4.26	3.08	4.24	3.08	4.30	3.14	4.32
(3) Participation in political activities.		2.82	4.00	2.79	3.99	2.79	3.99	2.83	4.03	3.14	4.32
2.2 Quality of good global citizen		3.3	4.4	3.2	4.4	3.2	4.4	3.2	4.5	3.14	4.32
2.2.1 Economic component		3.29	4.45	3.23	4.40	3.23	4.39	3.24	4.45	3.14	4.32
(1) Recognition of global issues		3.22	4.37	3.15	4.32	3.17	4.31	3.18	4.36	3.14	4.32
(2) Respect for diversity and human values		3.36	4.52	3.31	4.48	3.29	4.47	3.30	4.54	3.14	4.32
2.2.2 Socio-political component		3.29	4.45	3.23	4.40	3.23	4.39	3.24	4.45	3.14	4.32
(1) Make the world a better place		3.22	4.37	3.15	4.32	3.17	4.31	3.18	4.36	3.14	4.32
(2) Responsibility for their actions		3.36	4.52	3.31	4.48	3.29	4.47	3.30	4.54	3.14	4.32
3. Implement Teacher performance assessment	mean	3.14	4.30	3.08	4.27	3.11	4.29	3.12	4.31	3.11	4.29
	S.D	0.70	0.63	0.70	0.63	0.69	0.62	0.71	0.62	0.70	0.63
	Level	Mid	High	Mid	High	Mid	High	Mid	High	Mid	High
3.1 Quality of good national citizen		3.10	4.27	3.05	4.25	3.09	4.27	3.08	4.29	3.14	4.32
3.1.1 Economic component		3.16	4.35	3.12	4.34	3.15	4.35	3.15	4.35	3.14	4.32

HR Management Reform		External Environment									
		Politics		Economic		Sociocultural		Technology		Overall	
		current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state	current state	Desirable state
(1) Knowledge and hard skills		3.14	4.33	3.10	4.36	3.15	4.35	3.14	4.36	3.14	4.32
(2) Soft and life skills		3.17	4.36	3.13	4.31	3.14	4.35	3.15	4.34	3.14	4.32
3.1.2 Socio-political component		3.05	4.19	2.99	4.17	3.03	4.19	3.01	4.22	3.14	4.32
(1) Respect the law and order		3.23	4.36	3.17	4.35	3.21	4.35	3.18	4.37	3.14	4.32
(2) Community and sustainable development		3.10	4.26	3.03	4.23	3.08	4.26	3.04	4.27	3.14	4.32
(3) Participation in political activities.		2.83	3.95	2.78	3.94	2.79	3.96	2.82	4.02	3.14	4.32
3.2 Quality of good global citizen		3.28	4.43	3.19	4.38	3.23	4.40	3.23	4.42	3.14	4.32
3.2.1 Economic component		3.28	4.43	3.19	4.38	3.23	4.40	3.23	4.42	3.14	4.32
(1) Recognition of global issues		3.20	4.34	3.11	4.29	3.14	4.29	3.16	4.34	3.14	4.32
(2) Respect for diversity and human values		3.35	4.51	3.27	4.46	3.32	4.50	3.30	4.50	3.14	4.32
3.2.2 Socio-political component		3.28	4.43	3.19	4.38	3.23	4.40	3.23	4.42	3.14	4.32
(1) Make the world a better place		3.20	4.34	3.11	4.29	3.14	4.29	3.16	4.34	3.14	4.32
(2) Responsibility for their actions		3.35	4.51	3.27	4.46	3.32	4.50	3.30	4.50	3.14	4.32

From the analysis of the increase in the Human Resources Management Reform of the external environment, the findings indicate the overall picture of the current states of education management reform for enhancing the quality citizenship in Cambodia on the Human Resources Management Reform is at a middle level (mean = 3.13, S.D = 0.68). When considering each aspect, the politics aspect has the highest mean value (mean = 3.16, S.D = 0.69), then the technology (mean = 3.14, S.D = 0.69), the socio-

culture (mean = 3.12, S.D = 0.66) and the economy (mean = 3.11, S.D = 0.67) respectively.

From the analysis of the Human Resources Management Reform of the external environment, the findings show the desirable state of education management reform for enhancing the quality citizenship in Cambodia is at the highest level (mean = 4.32, S.D = 0.60). When considering each aspect, the technology aspect has the highest mean value (mean = 4.34, S.D = 0.59), then followed by the politics aspect (mean = 4.32, S.D = 0.59), while the socio-culture and the economy having the same mean value of (mean = 4.30, S.D = 0.60) and (mean = 4.30, S.D = 0.61) respectively.

The above analysis can be illustrated in Figure 19.
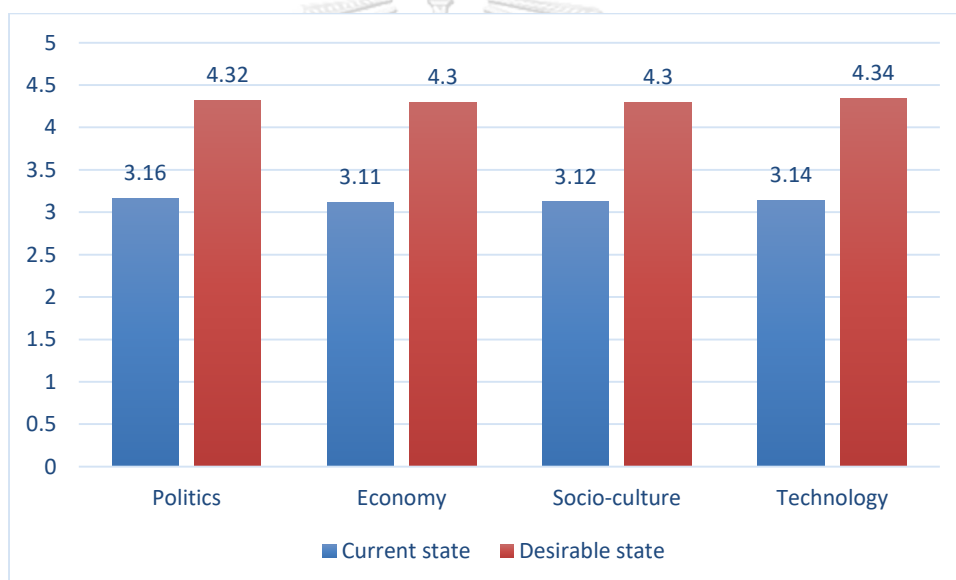
Figure 19 The comparison of current and desirable states of education management reform for enhancing the quality citizenship in Cambodia obtained from the external environment on the Human Resources Management Reform

4.3 The strengths, weaknesses, opportunities and threats of the education management reform for enhancing quality citizenship in Cambodia

The results of the data analysis to identify strengths, weaknesses, opportunities and threats of the education management reform for enhancing the quality citizenship in Cambodia consists of two parts.

4.3.1 The strengths and weaknesses of the education management reform for enhancing quality citizenship in Cambodia

4.3.2 The opportunities and threats of the education management reform for enhancing quality citizenship in Cambodia

4.3.1 The strengths and weaknesses of the education management reform for enhancing quality citizenship in Cambodia

Analysis of the internal environment was conducted by employing the data collected by the questionnaires and survey forms and set in the order of needs priority of the data using the PNI modified. The highest PNI modified substracted by the lowest PNI modified and divided by two. The difference, which is the mid interval value is used to identify the two groups, the high PNI modified and the low PNI modified. The aspects obtained the high PNI modified are identified as the weaknesses of the education management reform for enhancing the qualify citizenship in Cambodia. Those obtaining the low PNI modified are identified as the strengths of the education management reform for enhancing the quality citizenship in Cambodia.

From the results of the PNI modified of the internal environment, the highest PNI modified value is 0.469, and the lowest PNI modified value is 0.298. Therefore, the PNI modified of the internal environment organized in two groups of high and low PNI modified displayed as follows:

(0.469-0.298)/2 = 0.0855

The mid interval value is used to organize the two PNI modified groups as follows:

The high PNI modified values are 0.469-0.383 (weak)

The low PNI modified values are 0.298-0.382 (strong)

The results of PNI modified in an overall picture are illustrated in Tables 26 and 30 below.

Table 26: The strengths and weaknesses of the overall management reform for enhancing the quality citizenship in Cambodia

Education management reform for enhancing the quality citizenship in Cambodia	PNI modified	Order	S/W
1. Administrative and general management reform	0.370	2	S

Education management reform for enhancing the quality citizenship in Cambodia	PNI modified	Order	S/W
2. Academic management reform	0.360	3	S
3. Education finance management reform	0.385	1	W
4. Human resources management reform	0.357	4	S
Overall	0.368		

The findings of the analysis of each area of the internal environment of the education management reform in table 26 shows that the Human resources management reform reform has the lowest PNI modified of 0.357, then the Academic management reform, with PNI modified of 0.360, and the Administrative and general management reform having PNI modified of 0.370 were identified as the strengths of the Education Management Reform. The Education finance management reform, with PNI modified of 0.385, was identified as the weakness of education management reform. We can illustrate the findings in the colomn bar chart in Figure 20.
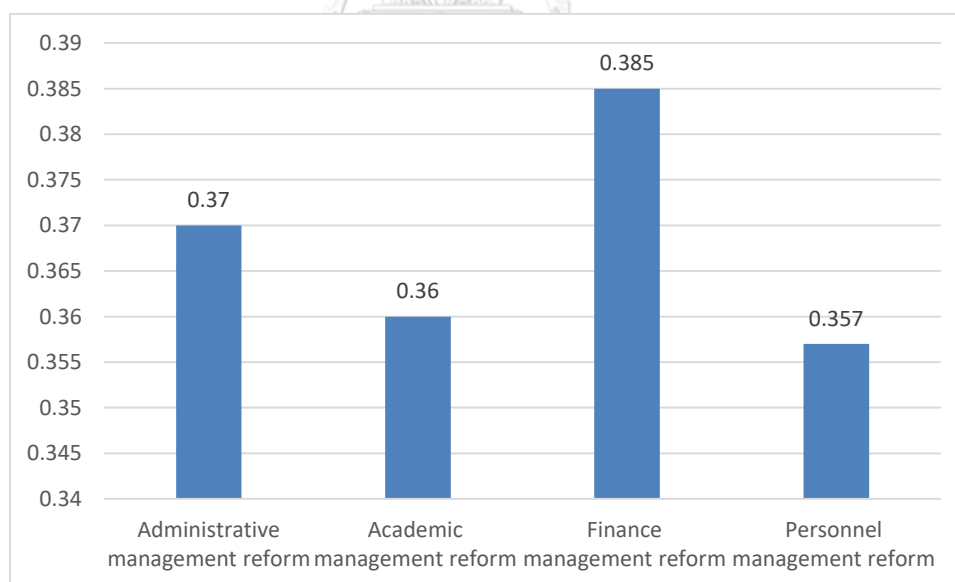
Figure 20 The comparison of PNI modified of the education management reform for enhancing quality citizenship in Cambodia

Table 27: The strengths and weaknesses of the administrative and general management reform for enhancing quality citizenship in Cambodia obtained from the analysis of the internal environment under each aspect

Administrative and general management reform	PNI modified	Order	S/W
1. Education policy and Education Strategic Plan	0.347	(12)	S
1.1 Quality of good national citizen	0.361		S

Administrative and general management reform	PNI modified	Order	S/W
1.1.1 Economic component	0.364	(1)	S
(1) Knowledge and hard skills	0.344	6	S
(2) Soft and life skills	0.382	3	S
1.1.2 Socio-political component	0.360	(2)	S
(1) Respect the law and order	0.318	7	S
(2) Community and sustainable development	0.354	5	S
(3) Participation in political activities.	0.426	1	W
1.2 Quality of good global citizen	0.343		S
1.2.1 Economic component	0.336	(4)	S
(1) Recognition of global issues	0.386	2	W
(2) Respect for diversity and human values	0.298	9	S
1.2.2 Socio-political component	0.342	(3)	S
(1) Make the world a better place	0.362	4	S
(2) Responsibility for their actions	0.308	8	S
2. School-Based Management	0.361	(10)	S
2.1 Quality of good national citizen	0.355		S
2.1.1 Economic component	0.366	(1)	S
(1) Knowledge and hard skills	0.356	5	S
(2) Soft and life skills	0.376	3	S
2.1.2 Socio-political component	0.344	(4)	S
(1) Respect the law and order	0.317	8	S
(2) Community and sustainable development	0.373	4	S
(3) Participation in political activities.	0.447	1	W
2.2 Quality of good global citizen	0.357		S
2.2.1 Economic component	0.347	(3)	S
(1) Recognition of global issues	0.390	2	W
(2) Respect for diversity and human values	0.310	9	S
2.2.2 Socio-political component	0.363	(2)	S
(1) Make the world a better place	0.352	6	S
(2) Responsibility for their actions	0.319	7	S
3. Community involvement	0.434	(1)	W
3.1 Quality of good national citizen	0.404		W
3.1.1 Economic component	0.418	(1)	W
(1) Knowledge and hard skills	0.436	2	W
(2) Soft and life skills	0.403	4	W
3.1.2 Socio-political component	0.393	(2)	W
(1) Respect the law and order	0.364	8	S
(2) Community and sustainable development	0.379	5	S
(3) Participation in political activities.	0.444	1	W
3.2 Quality of good global citizen	0.404		W
3.2.1 Economic component	0.418	(1)	W
(1) Recognition of global issues	0.428	3	W
(2) Respect for diversity and human values	0.342	9	S
3.2.2 Socio-political component	0.393	(2)	W
(1) Make the world a better place	0.379	5	S
(2) Responsibility for their actions	0.366	7	S
Overall	0.370	3	S

Table 28: The strengths and weaknesses of the academic management reform for enhancing quality citizenship in Cambodia obtained from the analysis of the internal environment under each aspect

Academic management reform	PNI modified	Order	S/W
1. Integrate Good Citizenship into school curriculum and textbooks	0.349	(11)	S
1.1 Quality of good national citizen	0.354		S
1.1.1 Economic component	0.343	(3)	S
(1) Knowledge and hard skills	0.350		S
(2) Soft and life skills	0.339		S
1.1.2 Socio-political component	0.363	(1)	S
(1) Respect the law and order	0.324		S
(2) Community and sustainable development	0.358		S
(3) Participation in political activities.	0.420		W
1.2 Quality of good global citizen	0.343		S
1.2.1 Economic component	0.353	(2)	S
(1) Recognition of global issues	0.381		S
(2) Respect for diversity and human values	0.327		S
1.2.2 Socio-political component	0.334	(4)	S
(1) Make the world a better place	0.343		S
(2) Responsibility for their actions	0.309		S
2. Improve teaching methods	0.352	(9)	S
2.1 Quality of good national citizen	0.343		S
2.1.1 Economic component	0.354	(2)	S
(1) Knowledge and hard skills	0.356		S
(2) Soft and life skills	0.337		S
2.1.2 Socio-political component	0.334	(4)	S
(1) Respect the law and order	0.322		S
(2) Community and sustainable development	0.362		S
(3) Participation in political activities.	0.427		W
2.2 Quality of good global citizen	0.358		S
2.2.1 Economic component	0.345	(3)	S
(1) Recognition of global issues	0.379		S
(2) Respect for diversity and human values	0.320		S
2.2.2 Socio-political component	0.369	(1)	S
(1) Make the world a better place	0.359		S
(2) Responsibility for their actions	0.318		S
3. Conduct regular assessment of students	0.383	(3)	W
3.1 Quality of good national citizen	0.390		W
3.1.1 Economic component	0.377	(2)	S
(1) Knowledge and hard skills	0.385		W
(2) Soft and life skills	0.374		S
3.1.2 Socio-political component	0.404	(1)	W
(1) Respect the law and order	0.353		S
(2) Community and sustainable development	0.399		W
(3) Participation in political activities.	0.469		W
3.2 Quality of good global citizen	0.350		S
3.2.1 Economic component	0.349	(4)	S
(1) Recognition of global issues	0.413		W
(2) Respect for diversity and human values	0.345		S
3.2.2 Socio-political component	0.351	(3)	S
(1) Make the world a better place	0.380		S
(2) Responsibility for their actions	0.352		S
Overall	0.360	2	S

Table 29: The strengths and weaknesses of the education financial management reform for enhancing quality citizenship in Cambodia obtained from the analysis of the internal environment under each aspect

Education finance management reform	PNI modified	Order	S/W
1. Linking budget to education policies	0.381	(5)	S
1.1 Quality of good national citizen	0.393		W
1.1.1 Economic component	0.392	(2)	W
(1) Knowledge and hard skills	0.398		W
(2) Soft and life skills	0.382		S
1.1.2 Socio-political component	0.402	(1)	W
(1) Respect the law and order	0.374		S
(2) Community and sustainable development	0.382		S
(3) Participation in political activities.	0.454		W
1.2 Quality of good global citizen	0.369		S
1.2.1 Economic component	0.372	(3)	S
(1) Recognition of global issues	0.406		W
(2) Respect for diversity and human values	0.346		S
1.2.2 Socio-political component	0.368	(4)	S
(1) Make the world a better place	0.372		S
(2) Responsibility for their actions	0.343		S
2. Increase financial autonomy and accountability of schools	0.388	(4)	W
2.1 Quality of good national citizen	0.380		S
2.1.1 Economic component	0.382	(3)	S
(1) Knowledge and hard skills	0.388		W
(2) Soft and life skills	0.379		S
2.1.2 Socio-political component	0.377	(4)	S
(1) Respect the law and order	0.375		S
(2) Community and sustainable development	0.389		W
(3) Participation in political activities.	0.442		W
2.2 Quality of good global citizen	0.389		W
2.2.1 Economic component	0.385	(2)	W
(1) Recognition of global issues	0.410		W
(2) Respect for diversity and human values	0.358		S
2.2.2 Socio-political component	0.399	(1)	W
(1) Make the world a better place	0.387		W
(2) Responsibility for their actions	0.364		S
3. Education budget audit	0.386	(2)	W
3.1 Quality of good national citizen	0.387		W
3.1.1 Economic component	0.387	(3)	W
(1) Knowledge and hard skills	0.399		W
(2) Soft and life skills	0.376		S
3.1.2 Socio-political component	0.390	(2)	W
(1) Respect the law and order	0.369		S
(2) Community and sustainable development	0.379		S
(3) Participation in political activities.	0.436		W
3.2 Quality of good global citizen	0.375		S
3.2.1 Economic component	0.391	(1)	S
(1) Recognition of global issues	0.415		W
(2) Respect for diversity and human values	0.369		S
3.2.2 Socio-political component	0.364	(4)	S
(1) Make the world a better place	0.377		S
(2) Responsibility for their actions	0.353		S
Overall	0.385	1	W

Table 30: The strengths and weaknesses of the human resources management reform for enhancing quality citizenship in Cambodia obtained from the analysis of the internal environment under each aspect

HR management reform	PNI modified	Order	S/W
1. Increase teacher PRESET qualifications	0.356	(6)	S
1.1 Quality of good national citizen	0.363		S
1.1.1 Economic component	0.347	(4)	S
(1) Knowledge and hard skills	0.355		S
(2) Soft and life skills	0.343		S
1.1.2 Socio-political component	0.373	(1)	S
(1) Respect the law and order	0.333		S
(2) Community and sustainable development	0.364		S
(3) Participation in political activities.	0.427		W
1.2 Quality of good global citizen	0.351		S
1.2.1 Economic component	0.354	(2)	S
(1) Recognition of global issues	0.384		W
(2) Respect for diversity and human values	0.327		S
1.2.2 Socio-political component	0.348	(3)	S
(1) Make the world a better place	0.350		S
(2) Responsibility for their actions	0.327		S
2. Provide INSET training	0.361	(7)	S
2.1 Quality of good national citizen	0.369		S
2.1.1 Economic component	0.355	(2)	S
(1) Knowledge and hard skills	0.357		S
(2) Soft and life skills	0.356		S
2.1.2 Socio-political component	0.385	(1)	W
(1) Respect the law and order	0.355		S
(2) Community and sustainable development	0.388		W
(3) Participation in political activities.	0.413		W
2.2 Quality of good global citizen	0.348		S
2.2.1 Economic component	0.354	(3)	S
(1) Recognition of global issues	0.394		W
(2) Respect for diversity and human values	0.318		S
2.2.2 Socio-political component	0.346	(4)	S
(1) Make the world a better place	0.351		S
(2) Responsibility for their actions	0.331		S
3. Implement teacher performance assessment	0.354	(7)	S
3.1 Quality of good national citizen	0.354		S
3.1.1 Economic component	0.330	(4)	S
(1) Knowledge and hard skills	0.318		S
(2) Soft and life skills	0.347		S
3.1.2 Socio-political component	0.378	(1)	S
(1) Respect the law and order	0.354		S
(2) Community and sustainable development	0.360		S
(3) Participation in political activities.	0.420		W
3.2 Quality of good global citizen	0.352		S
3.2.1 Economic component	0.350	(2)	S
(1) Recognition of global issues	0.385		W
(2) Respect for diversity and human values	0.323		S
3.2.2 Socio-political component	0.347	(3)	S
(1) Make the world a better place	0.359		S
(2) Responsibility for their actions	0.335		S
Overall	0.357	4	S

The findings on the analysis of each aspect of the internal environment of the education management reform for enhancing quality citizenship in Cambodia in Tables 26-30 shows that community involvement in school management to enhance quality citizenship has the highest PNI modified of 0.434, and then increasing financial autonomy and accountability of schools (with PNI modified of 0.388) respectively are identified as the weaknesses of the education management reform for enhancing the qualify citizenship in Cambodia. Conducting education budget audit (PNI modified of 0.386) and conducting regular assessment of students obtained the high PNI modified of 0.383 are also identified as the weaknesses of education management reform. In terms of the components of quality citizenship, participation in political activities and recognition of global issues have the highest PNI modified of 0.426 and 0.386 respectively, as students are not allowed to participate in political activities. The implemented curriculum also focus on Cambodian issues and students are not exposed to global issues.

The aspects obtaining low PNI modified include Education policy and Education Strategic Plan, with PNI modified of 0.347, integrate Good Citizenship into school curriculum and textbooks, with PNI modified of 0.349, improving teaching methods, with PNI modified of 0.352, implementing teacher performance assessment, with PNI modified of 0.354, increasing PRESET teacher qualifications, with PNI modified of 0.356, implementing School-Based Management, with PNI modified of 0.361, providing INSET development with PNI modified of 0.361, and linking budget to education policies (with PNI modified of 0.381) are respectively identified as the strengths of the education management reform for enhancing the quality citizenship in Cambodia.

The above analysis can be illustrated in Figure 21.
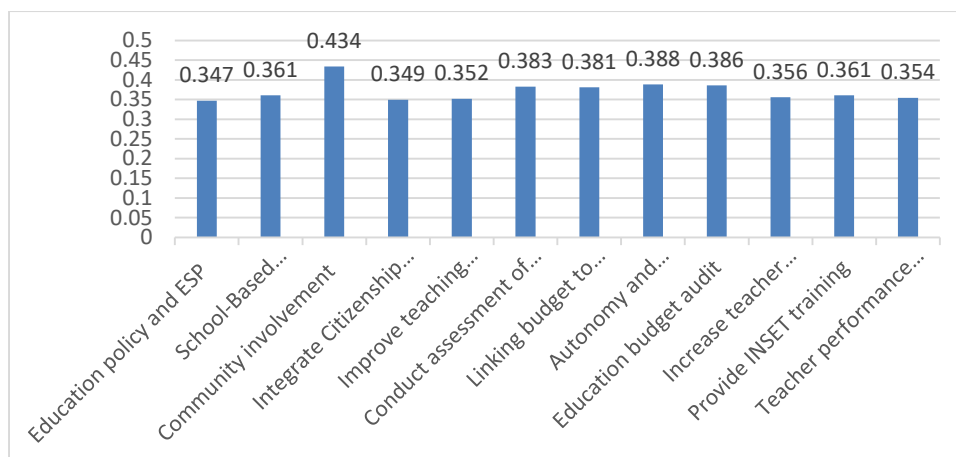
Figure 21 The comparison of PNI modified of the education management reform for enhancing the quality citizenship in Cambodia on each component of Increase the supply of qualified teachers, Curriculum review for good citizenship, Implement School-Based Management and Improve the performance of school financing.

4.3.2 The opportunities and threats of the education management reform for enhancing quality citizenship in Cambodia

The researcher conducted analysis of the external environment using the data collected by the questionnaires and survey forms and set in priority order of needs using the PNI modified. The highest PNI modified is substracted by the lowest PNI modified and dividied by two. The difference which is the mid interval value is used to identify the two groups, the high PNI modified and the low PNI modified. The aspects obtaining the high PNI modified are identified as the threats to the education management reform strategies for enhancing the quality citizenship in Cambodia. Those obtaining the low PNI modified are identified as the opportunities of the education management reform for enhancing the quality citizenship in Cambodia.

From the results of PNI modified of the external environment, the highest PNI modified value is 0.438, and the lowest PNI modified value is 0.308. Therefore, the PNI modified of the external environment organized in two groups of high and low PNI modified are as follows:

(0.438-0.308)/2 = 0.065

The mid interval value is used to organize the two PNI modified groups are follows:

The high PNI modified values are 0.438 – 0.375 (threat)

The low PNI modified values are 0.308 – 0.374 (opportunity)

The results of PNI modified in an overall picture, obtained from the analysis of the external environment, are shown in Table 31.

Table 31: The opportunities and threats of overall management reform for enhancing quality citizenship in Cambodia obtained from the overall analysis of the external environment

Education management reform for enhancing quality citizenship in Cambodia	External Environment														
	Politics			Economic			Socio-cultural			Technology			Overall		
	PNI	Order	O/T	PNI	Order	O/T	PNI	Order	O/T	PNI	Order	O/T	PNI	Order	O/T
1. Administrative management reform	0.375		T	0.383		T	0.393		T	0.388		T	0.384		T
2. Academic management reform	0.365		O	0.371		O	0.374		O	0.387		T	0.376		T
3. Finance management reform	0.388		T	0.383		T	0.377		T	0.387		T	0.385		T
4. HR management reform	0.367		O	0.383		T	0.378		T	0.382		T	0.380		T
Total	0.374	4	O	0.380	3	T	0.381	2	T	0.386	1	T	0.381		T

The findings on the analysis of each aspect of the external environment of the education management reform for enhancing the quality citizenship in Cambodia in Table 31 show that the technology aspect has the highest PNI modified of 0.386, followed by the socio-cultural aspect reaching the PNI modified of 0.381, and then the economic aspect achieving the PNI modified of 0.380 respectively are identified as the threats to the education management reform for enhancing the quality citizenship in Cambodia. The aspect gaining low PNI modified was the political aspect, with PNI modified of 0.374 and is identified as the opportunity of the education management reform for enhancing the quality citizenship in Cambodia.

The above analysis can be illustrated in Figure 22.
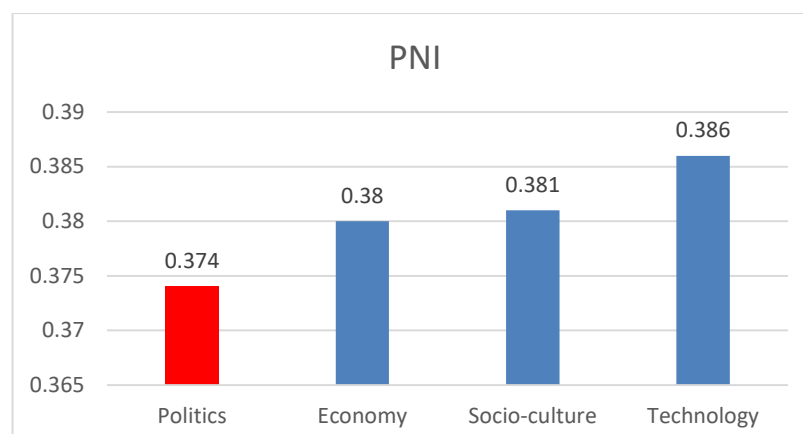
Figure 22 The comparison of PNI modified of the overall education management reform for enhancing the quality citizenship in Cambodia from the external environment

Based on the analysis of each aspect of the external environment of the education management reform for enhancing the quality citizenship in Cambodia, as portrayed in Tables 32-35, the following are the findings:

Table 32: The opportunities and threats of the administrative and general management reform for enhancing the quality citizenship in Cambodia obtained from the overall analysis of the external environment under each aspect

Administrative management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
1. Education policy and Education Strategic Plan	0.374	O	0.367	O	0.392	T	0.384	T	0.378	(2)	T
1.1 Quality of good national citizen	0.381	T	0.373	O	0.397	T	0.399	T	0.388		T
1.1.1 Economic component	0.391	T	0.368	O	0.398	T	0.404	T	0.389		T
(1) Knowledge and hard skills	0.405	T	0.378	T	0.399	T	0.419	T	0.399		T
(2) Soft and life skills	0.378	T	0.357	O	0.397	T	0.389	T	0.381		T
1.1.2 Socio-political component	0.370	O	0.382	T	0.395	T	0.393	T	0.388		T
(1) Respect the law and order	0.351	O	0.360	O	0.374	T	0.378	T	0.364		O
(2) Community and sustainable development	0.367	O	0.385	T	0.393	T	0.399	T	0.385		T
(3) Participation in political activities.	0.404	T	0.404	T	0.426	T	0.404	T	0.408		T
1.2 Quality of good global citizen	0.360	O	0.378	T	0.382	T	0.373	O	0.375		T
1.2.1 Economic component	0.363	O	0.412	T	0.390	T	0.378	T	0.388		T
(1) Recognition of global issues	0.385	T	0.440	T	0.374	T	0.397	T	0.399		T

Administrative management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
(2) Respect for diversity and human values	0.344	O	0.385	T	0.409	T	0.360	O	0.377		T
1.2.2 Socio-political component	0.354	O	0.348	O	0.373	O	0.365	O	0.359		O
(1) Make the world a better place	0.357	O	0.356	O	0.375	T	0.372	O	0.367		O
(2) Responsibility for their actions	0.355	O	0.336	O	0.371	O	0.363	O	0.359		O
2. School-Based Management	0.369	O	0.375	T	0.381	T	0.387	T	0.375	(3)	T
2.1 Quality of good national citizen	0.375	T	0.383	T	0.384	T	0.391	T	0.382		T
2.1.1 Economic component	0.380	T	0.382	T	0.377	T	0.391	T	0.382		T
(1) Knowledge and hard skills	0.386	T	0.385	T	0.389	T	0.391	T	0.390		T
(2) Soft and life skills	0.372	O	0.375	T	0.365	O	0.387	T	0.375		T
2.1.2 Socio-political component	0.375	T	0.384	T	0.395	T	0.391	T	0.386		T
(1) Respect the law and order	0.358	O	0.357	O	0.375	T	0.363	O	0.360		O
(2) Community and sustainable development	0.377	T	0.382	T	0.388	T	0.384	T	0.383		T
(3) Participation in political activities.	0.394	T	0.409	T	0.428	T	0.435	T	0.416		T
2.2 Quality of good global citizen	0.354	O	0.361	O	0.368	O	0.373	O	0.366		O
2.2.1 Economic component	0.365	O	0.369	O	0.378	T	0.379	T	0.373		O
(1) Recognition of global issues	0.389	T	0.393	T	0.401	T	0.391	T	0.393		T
(2) Respect for diversity and human values	0.344	O	0.347	O	0.357	O	0.369	O	0.352		O
2.2.2 Socio-political component	0.345	O	0.354	O	0.360	O	0.371	O	0.359		O
(1) Make the world a better place	0.347	O	0.358	O	0.361	O	0.380	T	0.360		O
(2) Responsibility for their actions	0.343	O	0.349	O	0.360	O	0.363	O	0.355		O
3. Community involvement	0.380	T	0.390	T	0.394	T	0.393	T	0.390	(1)	T
3.1 Quality of good national citizen	0.389	T	0.398	T	0.398	T	0.403	T	0.398		T
3.1.1 Economic component	0.404	T	0.404	T	0.401	T	0.394	T	0.401		T
(1) Knowledge and hard skills	0.418	T	0.412	T	0.410	T	0.412	T	0.410		T
(2) Soft and life skills	0.387	T	0.393	T	0.396	T	0.381	T	0.388		T
3.1.2 Socio-political component	0.383	T	0.395	T	0.395	T	0.409	T	0.395		T
(1) Respect the law and order	0.363	O	0.379	T	0.381	T	0.390	T	0.377		T

Administrative management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
(2) Community and sustainable development	0.370	O	0.398	T	0.395	T	0.419	T	0.395		T
(3) Participation in political activities.	0.419	T	0.420	T	0.410	T	0.429	T	0.420		T
3.2 Quality of good global citizen	0.369	O	0.375	T	0.380	T	0.378	T	0.376		T
3.2.1 Economic component	0.381	T	0.382	T	0.391	T	0.387	T	0.386		T
(1) Recognition of global issues	0.405	T	0.393	T	0.410	T	0.410	T	0.407		T
(2) Respect for diversity and human values	0.364	O	0.368	O	0.373	O	0.367	O	0.367		O
3.2.2 Socio-political component	0.357	O	0.372	O	0.377	T	0.372	O	0.369		O
(1) Make the world a better place	0.365	O	0.371	O	0.378	T	0.378	T	0.373		O
(2) Responsibility for their actions	0.351	O	0.372	O	0.373	O	0.370	O	0.368		O
Overall	0.373	O	0.379	T	0.387	T	0.388	T	0.382	2	T

The politics aspect which has low PNI modified has become an opportunity in integrating Good Citizenship into school curriculum and textbooks (PNI modified = 0.354), then improving teaching methods (PNI modified = 0.358), providing INSET training (PNI modified = 0.362), increasing teacher PRESET qualifications (PNI modified = 0.367), implementing School-Based Management (PNI modified = 0.369), implement teacher performance assessment (PNI modified = 0.369), conducting regular assessment of students (PNI modified = 0.371), and Education policy and Education Strategic Plan (PNI modified = 0.374) respectively. On the other hand, the politics aspect with high PNI modified as a threat in ensuring community involvement (PNI modified = 0.380), then to conduct education budget audit (PNI modified = 0.383), to increase financial autonomy and accountability of schools (PNI modified = 0.383), and to link budget to education policies (PNI modified = 0.385).

Table 33: The opportunities and threats of the academic management reform for enhancing the quality citizenship in Cambodia obtained from the overall analysis of the external environment under each aspect

Academic management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
1. Integrate Good Citizenship into school curriculum and textbooks	0.354	O	0.362	O	0.373	O	0.376	T	0.367	(3)	O
1.1 Quality of good national citizen	0.367	O	0.371	O	0.380	T	0.387	T	0.376		T

Academic management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
1.1.1 Economic component	0.339	O	0.341	O	0.364	O	0.355	O	0.351		O
(1) Knowledge and hard skills	0.344	O	0.354	O	0.369	O	0.364	O	0.359		O
(2) Soft and life skills	0.332	O	0.333	O	0.360	O	0.347	O	0.343		O
1.1.2 Socio-political component	0.406	T	0.403	T	0.399	T	0.420	T	0.404		T
(1) Respect the law and order	0.332	O	0.357	O	0.360	O	0.375	T	0.353		O
(2) Community and sustainable development	0.358	O	0.368	O	0.384	T	0.398	T	0.375		T
(3) Participation in political activities.	0.406	T	0.403	T	0.399	T	0.420	T	0.404		T
1.2 Quality of good global citizen	0.333	O	0.347	O	0.362	O	0.355	O	0.348		O
1.2.1 Economic component	0.354	O	0.373	O	0.387	T	0.379	T	0.374		T
(1) Recognition of global issues	0.385	T	0.397	T	0.416	T	0.400	T	0.401		T
(2) Respect for diversity and human values	0.330	O	0.351	O	0.361	O	0.357	O	0.348		O
1.2.2 Socio-political component	0.308	O	0.325	O	0.339	O	0.332	O	0.326		O
(1) Make the world a better place	0.344	O	0.354	O	0.369	O	0.364	O	0.359		O
(2) Responsibility for their actions	0.332	O	0.333	O	0.360	O	0.347	O	0.343		O
2. Improve teaching methods	0.358	O	0.375	T	0.373	O	0.384	T	0.373	(2)	O
2.1 Quality of good national citizen	0.365	O	0.371	O	0.371	O	0.392	T	0.377		T
2.1.1 Economic component	0.362	O	0.368	O	0.370	O	0.397	T	0.374		T
(1) Knowledge and hard skills	0.367	O	0.376	T	0.372	O	0.412	T	0.380		T
(2) Soft and life skills	0.355	O	0.356	O	0.369	O	0.383	T	0.366		O
2.1.2 Socio-political component	0.375	T	0.379	T	0.375	T	0.391	T	0.381		T
(1) Respect the law and order	0.340	O	0.365	O	0.350	O	0.370	O	0.356		O
(2) Community and sustainable development	0.373	T	0.376	T	0.377	T	0.400	T	0.381		T
(3) Participation in political activities.	0.413	T	0.402	T	0.409	T	0.405	T	0.408		T
2.2 Quality of good global citizen	0.354	O	0.370	O	0.373	O	0.375	T	0.369		O
2.2.1 Economic component	0.362	O	0.375	T	0.379	T	0.375	T	0.374		T
(1) Recognition of global issues	0.395	T	0.385	T	0.398	T	0.386	T	0.389		T
(2) Respect for diversity and human values	0.333	O	0.365	O	0.359	O	0.364	O	0.356		O

Academic management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
2.2.2 Socio-political component	0.346	O	0.375	T	0.330	O	0.410	T	0.364		O
(1) Make the world a better place	0.338	O	0.364	O	0.369	O	0.382	T	0.364		O
(2) Responsibility for their actions	0.332	O	0.355	O	0.355	O	0.363	O	0.351		O
3. Conduct regular assessment of students	0.371	O	0.379	T	0.376	T	0.387	T	0.378	(1)	T
3.1 Quality of good national citizen	0.379	T	0.383	T	0.380	T	0.390	T	0.383		T
3.1.1 Economic component	0.376	T	0.371	O	0.376	T	0.384	T	0.379		T
(1) Knowledge and hard skills	0.385	T	0.392	T	0.380	T	0.397	T	0.387		T
(2) Soft and life skills	0.363	O	0.352	O	0.371	O	0.372	O	0.364		O
3.1.2 Socio-political component	0.385	T	0.391	T	0.383	T	0.399	T	0.391		T
(1) Respect the law and order	0.348	O	0.369	O	0.356	O	0.373	O	0.361		O
(2) Community and sustainable development	0.388	T	0.384	T	0.383	T	0.408	T	0.388		T
(3) Participation in political activities.	0.426	T	0.424	T	0.414	T	0.418	T	0.423		T
3.2 Quality of good global citizen	0.352	O	0.358	O	0.360	O	0.378	T	0.362		O
3.2.1 Economic component	0.352	O	0.358	O	0.360	O	0.378	T	0.362		O
(1) Recognition of global issues	0.360	O	0.364	O	0.366	O	0.385	T	0.368		O
(2) Respect for diversity and human values	0.348	O	0.356	O	0.356	O	0.372	O	0.360		O
3.2.2 Socio-political component	0.352	O	0.358	O	0.360	O	0.378	T	0.362		O
(1) Make the world a better place	0.360	O	0.364	O	0.366	O	0.385	T	0.368		O
(2) Responsibility for their actions	0.348	O	0.356	O	0.356	O	0.372	O	0.360		O
Overall	0.360	O	0.369	O	0.372	O	0.382	T	0.371	4	O

The Cambodian economy which has the high PNI modified as threat in ensuring community involvement in school management (PNI modified = 0.390), conducting education budget audit (PNI modified = 0.389), then increase financial autonomy and accountability of schools (PNI modified = 0.388), provide INSET training (PNI modified = 0.386), implement teacher performance assessment (PNI modified = 0.386), increase teacher PRESET qualifications (PNI modified = 0.380), link budget to education policies (PNI modified = 0.379), conduct regular assessment of students (PNI

modified = 0.379), improve teaching methods (PNI modified = 0.375), and implement
School-Based Management (PNI modified = 0.375). On the other hand, the economic
aspect with low PNI modified as an opportunity in integrating Good Citizenship into
school curriculum and textbooks (PNI modified = 0.362), and implement Education
policy and Education Strategic Plan (PNI modified = 0.367).

Table 34: The opportunities and threats of the financial management reform for
enhancing the quality citizenship in Cambodia obtained from the overall analysis of
the external environment under each aspect

Finance management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
1. Linking budget to education policies	0.385	T	0.379	T	0.383	T	0.386	T	0.383	(3)	T
1.1 Quality of good national citizen	0.392	T	0.390	T	0.379	T	0.391	T	0.411		T
1.1.1 Economic component	0.395	T	0.389	T	0.383	T	0.388	T	0.395		T
(1) Knowledge and hard skills	0.401	T	0.386	T	0.395	T	0.389	T	0.375		T
(2) Soft and life skills	0.385	T	0.388	T	0.372	O	0.384	T	0.345		O
1.1.2 Socio-political component	0.388	T	0.395	T	0.375	T	0.389	T	0.438		T
(1) Respect the law and order	0.355	O	0.368	O	0.364	O	0.361	O	0.333		O
(2) Community and sustainable development	0.387	T	0.393	T	0.365	O	0.391	T	0.294		O
(3) Participation in political activities.	0.432	T	0.425	T	0.405	T	0.426	T	0.423		T
1.2 Quality of good global citizen	0.364	O	0.361	O	0.368	O	0.375	T	0.364		T
1.2.1 Economic component	0.365	O	0.358	O	0.364	O	0.368	O	0.365		O
(1) Recognition of global issues	0.367	O	0.364	O	0.368	O	0.381	T	0.370		O
(2) Respect for diversity and human values	0.361	O	0.353	O	0.358	O	0.361	O	0.361		O
1.2.2 Socio-political component	0.371	O	0.368	O	0.371	O	0.374	O	0.371		O
(1) Make the world a better place	0.367	O	0.364	O	0.368	O	0.381	T	0.370		O
(2) Responsibility for their actions	0.361	O	0.353	O	0.358	O	0.361	O	0.361		O
2. Increase financial autonomy and accountability of schools	0.383	T	0.388	T	0.389	T	0.385	T	0.383	(2)	T
2.1 Quality of good national citizen	0.390	T	0.396	T	0.391	T	0.392	T	0.390		T

Finance management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
2.1.1 Economic component	0.388	T	0.388	T	0.392	T	0.387	T	0.387		T
(1) Knowledge and hard skills	0.404	T	0.394	T	0.404	T	0.395	T	0.399		T
(2) Soft and life skills	0.373	O	0.383	T	0.384	T	0.379	T	0.378		T
2.1.2 Socio-political component	0.393	T	0.399	T	0.387	T	0.393	T	0.395		T
(1) Respect the law and order	0.365	O	0.373	O	0.368	O	0.375	T	0.370		O
(2) Community and sustainable development	0.394	T	0.407	T	0.376	T	0.391	T	0.395		T
(3) Participation in political activities.	0.425	T	0.430	T	0.421	T	0.413	T	0.421		T
2.2 Quality of good global citizen	0.358	O	0.366	O	0.366	O	0.372	O	0.369		O
2.2.1 Economic component	0.358	O	0.366	O	0.366	O	0.372	O	0.369		O
(1) Recognition of global issues	0.369	O	0.375	T	0.371	O	0.389	T	0.374		T
(2) Respect for diversity and human values	0.353	O	0.358	O	0.363	O	0.357	O	0.357		O
2.2.2 Socio-political component	0.358	O	0.366	O	0.366	O	0.372	O	0.369		O
(1) Make the world a better place	0.369	O	0.375	T	0.371	O	0.389	T	0.374		T
(2) Responsibility for their actions	0.353	O	0.358	O	0.363	O	0.357	O	0.357		O
3. Education budget audit	0.383	T	0.389	T	0.373	O	0.388	T	0.385	(1)	T
3.1 Quality of good national citizen	0.387	T	0.399	T	0.395	T	0.395	T	0.395		T
3.1.1 Economic component	0.378	T	0.393	T	0.396	T	0.391	T	0.390		T
(1) Knowledge and hard skills	0.385	T	0.399	T	0.399	T	0.403	T	0.397		T
(2) Soft and life skills	0.372	O	0.386	T	0.393	T	0.384	T	0.381		T
3.1.2 Socio-political component	0.396	T	0.403	T	0.395	TT	0.400		0.398		T
(1) Respect the law and order	0.373	T	0.382	T	0.375	T	0.378	T	0.377		T
(2) Community and sustainable development	0.386	T	0.399	T	0.397	T	0.390	T	0.391		T
(3) Participation in political activities.	0.435	T	0.428	T	0.409	T	0.432	T	0.424		T
3.2 Quality of good global citizen	0.358	O	0.364	O	0.367	O	0.378	T	0.366		O
3.2.1 Economic component	0.358	O	0.364	O	0.367	O	0.378	T	0.366		O
(1) Recognition of global issues	0.373	T	0.374	T	0.372	O	0.376	T	0.372		O
(2) Respect for diversity and human values	0.348	O	0.355	O	0.359	O	0.377	T	0.361		O

Finance management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
3.2.2 Socio-political component	0.358	O	0.364	O	0.367	O	0.378	T	0.366		O
(1) Make the world a better place	0.373	T	0.374	T	0.372	O	0.376	T	0.372		O
(2) Responsibility for their actions	0.348	O	0.355	O	0.359	O	0.377	T	0.361		O
Overall	0.378	T	0.381	T	0.378	T	0.384	T	0.378	1	T

The Cambodian socio-cultural aspect which has high PNI modified as threat in ensuring community involvement (PNI modified = 0.394), implementing Education policy and Education Strategic Plan (PNI modified = 0.392), increasing financial autonomy and accountability of schools (PNI modified = 0.389), linking budget to education policies (PNI modified = 0.383), implementing School-Based Management (PNI modified = 0.381), implementing teacher performance assessment (PNI modified = 0.379), providing INSET training (PNI modified = 0.378), and conducting regular assessment of students (PNI modified = 0.376). On the other hand, the Cambodian socio-cultural aspect which has low PNI modified has become an opportunity in integrating Good Citizenship into school curriculum and textbooks (PNI modified = 0.373), improving teaching methods (PNI modified = 0.373), increasing PRESET teacher qualifications (PNI modified = 0.373), and conducting education budget audit (PNI modified = 0.373).

Table 35: The opportunities and threats of the human resources management reform for enhancing the quality citizenship in Cambodia obtained from the overall analysis of the external environment under each aspect

HR management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
1. Increase teacher PRESET qualifications	0.367	O	0.380	T	0.373	O	0.384	T	0.376	(3)	T
1.1 Quality of good national citizen	0.376	T	0.389	T	0.378	T	0.395	T	0.385		T
1.1.1 Economic component	0.370	O	0.384	T	0.377	T	0.389	T	0.380		T
(1) Knowledge and hard skills	0.372	O	0.391	T	0.386	T	0.399	T	0.387		T
(2) Soft and life skills	0.368	O	0.381	T	0.369	O	0.382	T	0.375		T
1.1.2 Socio-political component	0.382	T	0.391	T	0.384	T	0.398	T	0.389		T
(1) Respect the law and order	0.360	O	0.371	O	0.360	O	0.372	O	0.366		O

HR management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
(2) Community and sustainable development	0.379	T	0.392	T	0.379	T	0.396	T	0.387		T
(3) Participation in political activities.	0.411	T	0.423	T	0.410	T	0.421	T	0.416		T
1.2 Quality of good global citizen	0.336	O	0.350	O	0.360	O	0.365	O	0.353		O
1.2.1 Economic component	0.336	O	0.350	O	0.360	O	0.365	O	0.353		O
(1) Recognition of global issues	0.334	O	0.356	O	0.353	O	0.372	O	0.354		O
(2) Respect for diversity and human values	0.342	O	0.347	O	0.364	O	0.363	O	0.354		O
1.2.2 Socio-political component	0.336	O	0.350	O	0.360	O	0.365	O	0.353		O
(1) Make the world a better place	0.334	O	0.356	O	0.353	O	0.372	O	0.354		O
(2) Responsibility for their actions	0.342	O	0.347	O	0.364	O	0.363	O	0.354		O
2. Provide INSET training	0.362	O	0.386	T	0.378	T	0.383	T	0.377	(2)	T
2.1 Quality of good national citizen	0.373	T	0.392	T	0.384	T	0.390	T	0.385		T
2.1.1 Economic component	0.368	O	0.385	T	0.382	T	0.385	T	0.380		T
(1) Knowledge and hard skills	0.381	T	0.391	T	0.389	T	0.394	T	0.389		T
(2) Soft and life skills	0.358	O	0.379	T	0.375	T	0.377	T	0.372		O
2.1.2 Socio-political component	0.381	T	0.391	T	0.389	T	0.391	T	0.388		T
(1) Respect the law and order	0.357	O	0.367	O	0.363	O	0.366	O	0.363		O
(2) Community and sustainable development	0.365	O	0.388	T	0.377	T	0.396	T	0.382		T
(3) Participation in political activities.	0.418	T	0.430	T	0.430	T	0.424	T	0.426		T
2.2 Quality of good global citizen	0.333	O	0.375	T	0.375	T	0.406	T	0.372		O
2.2.1 Economic component	0.353	O	0.362	O	0.359	O	0.373	O	0.362		O
(1) Recognition of global issues	0.357	O	0.371	O	0.360	O	0.371	O	0.365		O
(2) Respect for diversity and human values	0.345	O	0.353	O	0.359	O	0.376	O	0.358		O
2.2.2 Socio-political component	0.353	O	0.362	O	0.359	O	0.373	O	0.362		O
(1) Make the world a better place	0.357	O	0.371	O	0.360	O	0.371	O	0.365		O
(2) Responsibility for their actions	0.345	O	0.353	O	0.359	O	0.376	T	0.358		O
3. Implement teacher	0.369	O	0.386	T	0.379	T	0.381	T	0.379	(1)	T

HR management reform	Politics		Economic		Socio-cultural		Technology		Overall		
	PNI	O/T	PNI	O/T	PNI	O/T	PNI	O/T	PNI	Order	O/T
performance assessment											
3.1 Quality of good national citizen	0.377	T	0.393	T	0.382	T	0.393	T	0.386		T
3.1.1 Economic component	0.377	T	0.391	T	0.381	T	0.381	T	0.383		T
(1) Knowledge and hard skills	0.379	T	0.406	T	0.381	T	0.389	T	0.389		T
(2) Soft and life skills	0.375	T	0.377	T	0.385	T	0.378	T	0.379		T
3.1.2 Socio-political component	0.374	T	0.395	T	0.383	T	0.402	T	0.389		T
(1) Respect the law and order	0.350	T	0.372	O	0.355	O	0.374	T	0.363		O
(2) Community and sustainable development	0.374	T	0.396	T	0.383	T	0.405	T	0.390		T
(3) Participation in political activities.	0.396	T	0.417	T	0.419	T	0.426	T	0.415		T
3.2 Quality of good global citizen	0.351	O	0.373	O	0.362	O	0.368	O	0.364		O
3.2.1 Economic component	0.351	O	0.373	T	0.362	O	0.368	O	0.364		O
(1) Recognition of global issues	0.356	O	0.379	T	0.366	O	0.373	O	0.369		O
(2) Respect for diversity and human values	0.346	O	0.364	O	0.355	O	0.364	O	0.357		O
3.2.2 Socio-political component	0.351	O	0.373	O	0.362	O	0.368	O	0.364		O
(1) Make the world a better place	0.356	O	0.379	T	0.366	O	0.373	O	0.369		O
(2) Responsibility for their actions	0.346	O	0.364	O	0.355	O	0.364	O	0.357		O
Overall	0.362	O	0.378	T	0.373	O	0.383	T	0.374	3	T

The Cambodian technology which has high PNI modified as threat in ensuring community involvement (PNI modified = 0.393), conducting education budget audit (PNI modified = 0.388), implementing School-Based Management (PNI modified = 0.387), conducting regular assessment of students (PNI modified = 0.387), linking budget to education policies (PNI modified = 0.386), increasing financial autonomy and accountability of schools (PNI modified = 0.385), increasing PRESET teacher qualifications (PNI modified = 0.384), implementing Education policy and Education Strategic Plan (PNI modified = 0.384), improving teaching methods (PNI modified = 0.384), providing INSET training (PNI modified = 0.383), implementing teacher performance assessment (PNI modified = 0.381), and integrating Good Citizenship into school curriculum and textbooks (PNI modified = 0.376).

In summary, based on the analysis results of PNI modified displayed in Tables 31-35, the strengths, weaknesses, opportunities and threats of each aspect of education management reform strategies for enhancing the quality citizenship in Cambodia obtained from the overall analysis of the internal and external environment can be illustrated in the Table 36 below.

Table 36: The SWOT of the administrative and general education management reform for enhancing the quality citizenship in Cambodia obtained from the overall analysis of the internal and external environment

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W/ S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
Administrative and general management reform										
1. Education policy and ESP	0.347	S	0.374	T	0.367	O	0.392	T	0.384	T
1.1 Quality of good national citizen	0.361	S	0.381	T	0.373	O	0.397	T	0.399	T
1.1.1 Economic component	0.364	S	0.391	T	0.368	O	0.398	T	0.404	T
(1) Knowledge and hard skills	0.344	S	0.405	T	0.378	T	0.399	T	0.419	T
(2) Soft and life skills	0.382	S	0.378	T	0.357	O	0.397	T	0.389	T
1.1.2 Socio-political component	0.360	S	0.370	O	0.382	T	0.395	T	0.393	T
(1) Respect the law and order	0.318	S	0.351	O	0.360	O	0.374	O	0.378	T
(2) Community and sustainable development	0.354	S	0.367	O	0.385	T	0.393	T	0.399	T
(3) Participation in political activities.	0.426	W	0.404	T	0.404	T	0.426	T	0.404	T
1.2 Quality of good global citizen	0.343	S	0.360	O	0.378	T	0.382	T	0.373	O
1.2.1 Economic component	0.336	S	0.363	O	0.412	T	0.390	T	0.378	T
(1) Recognition of global issues	0.386	W	0.385	T	0.440	T	0.374	O	0.397	T
(2) Respect for diversity and human values	0.298	S	0.344	T	0.385	T	0.409	T	0.360	T
1.2.2 Socio-political component	0.342	S	0.354	O	0.348	O	0.373	O	0.365	O
(1) Make the world a better place	0.362	S	0.357	O	0.356	O	0.375	T	0.372	O
(2) Responsibility for their actions	0.308	S	0.355	O	0.336	O	0.371	O	0.363	O
2. School-Based Management	0.361	S	0.369	O	0.375	T	0.381	T	0.387	T
2.1 Quality of good national citizen	0.355	S	0.375	T	0.383	T	0.384	T	0.391	T
2.1.1 Economic component	0.366	S	0.380	T	0.382	T	0.377	T	0.391	T
(1) Knowledge and hard skills	0.356	S	0.386	T	0.385	T	0.389	T	0.391	T
(2) Soft and life skills	0.376	S	0.372	O	0.375	T	0.365	O	0.387	T
2.1.2 Socio-political component	0.344	S	0.375	T	0.384	T	0.395	T	0.391	T
(1) Respect the law and order	0.317	S	0.358	O	0.357	O	0.375	T	0.363	O

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W/ S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
(2) Community and sustainable development	0.373	S	0.377	T	0.382	T	0.388	T	0.384	T
(3) Participation in political activities.	0.447	W	0.394	T	0.409	T	0.428	T	0.435	T
2.2 Quality of good global citizen	0.357	S	0.354	O	0.361	O	0.368	O	0.373	O
2.2.1 Economic component	0.347	S	0.365	O	0.369	O	0.378	T	0.379	T
(1) Recognition of global issues	0.390	W	0.389	T	0.393	T	0.401	T	0.391	T
(2) Respect for diversity and human values	0.310	S	0.344	O	0.347	O	0.357	O	0.369	O
2.2.2 Socio-political component	0.363	S	0.345	O	0.354	O	0.360	O	0.371	O
(1) Make the world a better place	0.352	S	0.347	O	0.358	O	0.361	O	0.380	T
(2) Responsibility for their actions	0.319	S	0.343	O	0.349	O	0.360	O	0.363	O
3. Community involvement	0.434	W	0.380	T	0.390	T	0.394	T	0.393	T
3.1 Quality of good national citizen	0.404	W	0.389	T	0.398	T	0.398	T	0.403	T
3.1.1 Economic component	0.418	W	0.404	T	0.404	T	0.401	T	0.394	T
(1) Knowledge and hard skills	0.436	W	0.418	T	0.412	T	0.410	T	0.412	T
(2) Soft and life skills	0.403	W	0.387	T	0.393	T	0.396	T	0.381	T
3.1.2 Socio-political component	0.393	W	0.383	T	0.395	T	0.395	T	0.409	T
(1) Respect the law and order	0.364	S	0.363	O	0.379	T	0.381	T	0.390	T
(2) Community and sustainable development	0.379	S	0.370	O	0.398	T	0.395	T	0.419	T
(3) Participation in political activities.	0.444	W	0.419	T	0.420	T	0.410	T	0.429	T
3.2 Quality of good global citizen	0.404	W	0.369	O	0.375	T	0.380	T	0.378	T
3.2.1 Economic component	0.418	W	0.381	T	0.382	T	0.391	T	0.387	T
(1) Recognition of global issues	0.428	W	0.405	T	0.393	T	0.410	T	0.410	T
(2) Respect for diversity and human values	0.342	S	0.364	O	0.368	O	0.373	O	0.367	O
3.2.2 Socio-political component	0.393	W	0.357	O	0.372	O	0.377	T	0.372	O
(1) Make the world a better place	0.379	S	0.365	O	0.371	O	0.378	T	0.378	T
(2) Responsibility for their actions	0.366	S	0.351	O	0.372	O	0.373	O	0.370	O

Table 37 The SWOT of the academic management reform for enhancing the quality citizenship in Cambodia obtained from the overall analysis of the internal and external environment

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W/S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
Academic management reform										
1. Integrate Good Citizenship into school curriculum and textbooks	0.349	S	0.354	O	0.362	O	0.373	O	0.376	T
1.1 Quality of good national citizen	0.354	S	0.367	O	0.371	O	0.380	T	0.387	T
1.1.1 Economic component	0.343	S	0.339	O	0.341	O	0.364	O	0.355	O
(1) Knowledge and hard skills	0.350	S	0.344	O	0.354	O	0.369	O	0.364	O
(2) Soft and life skills	0.339	S	0.332	O	0.333	O	0.360	O	0.347	O
1.1.2 Socio-political component	0.363	S	0.406	T	0.403	T	0.399	T	0.420	T
(1) Respect the law and order	0.324	S	0.332	O	0.357	O	0.360	O	0.375	T
(2) Community and sustainable development	0.358	S	0.358	O	0.368	O	0.384	T	0.398	T
(3) Participation in political activities.	0.420	W	0.406	T	0.403	T	0.399	T	0.420	T
1.2 Quality of good global citizen	0.343	S	0.333	O	0.347	O	0.362	O	0.355	O
1.2.1 Economic component	0.353	S	0.354	O	0.373	O	0.387	T	0.379	T
(1) Recognition of global issues	0.381	S	0.385	T	0.397	T	0.416	T	0.400	T
(2) Respect for diversity and human values	0.327	S	0.330	O	0.351	O	0.361	O	0.357	O
1.2.2 Socio-political component	0.334	S	0.308	O	0.325	O	0.339	O	0.332	O
(1) Make the world a better place	0.343	S	0.344	O	0.354	O	0.369	O	0.364	O
(2) Responsibility for their actions	0.309	S	0.332	O	0.333	O	0.360	O	0.347	O
2. Improve teaching methods	0.352	S	0.358	O	0.375	T	0.373	O	0.384	T
2.1 Quality of good national citizen	0.343	S	0.365	O	0.371	O	0.371	O	0.392	T
2.1.1 Economic component	0.354	S	0.362	O	0.368	O	0.370	O	0.397	T
(1) Knowledge and hard skills	0.356	S	0.367	O	0.376	T	0.372	O	0.412	T
(2) Soft and life skills	0.337	S	0.355	O	0.356	O	0.369	O	0.383	T
2.1.2 Socio-political component	0.334	S	0.375	T	0.379	T	0.375	T	0.391	T
(1) Respect the law and order	0.322	S	0.340	O	0.365	O	0.350	O	0.370	O
(2) Community and sustainable development	0.362	S	0.373	T	0.376	T	0.377	T	0.400	T
(3) Participation in political activities.	0.427	W	0.413	T	0.402	T	0.409	T	0.405	T
2.2 Quality of good global citizen	0.358	S	0.354	O	0.370	O	0.373	O	0.375	T
2.2.1 Economic component	0.345	S	0.362	O	0.375	T	0.379	T	0.375	T
(1) Recognition of global issues	0.379	S	0.395	T	0.385	T	0.398	T	0.386	T
(2) Respect for diversity and human values	0.320	S	0.333	O	0.365	O	0.359	O	0.364	O

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W/ S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
2.2.2 Socio-political component	0.369	S	0.346	O	0.375	T	0.330	O	0.410	T
(1) Make the world a better place	0.359	S	0.338	O	0.364	O	0.369	O	0.382	T
(2) Responsibility for their actions	0.318	S	0.332	O	0.355	O	0.355	O	0.363	O
3. Conduct regular assessment of students	0.383	W	0.371	O	0.379	T	0.376	T	0.387	T
3.1 Quality of good national citizen	0.390	W	0.379	T	0.383	T	0.380	T	0.390	T
3.1.1 Economic component	0.377	S	0.376	T	0.371	O	0.376	T	0.384	T
(1) Knowledge and hard skills	0.385	W	0.385	T	0.392	T	0.380	T	0.397	T
(2) Soft and life skills	0.374	S	0.363	O	0.352	O	0.371	O	0.372	O
3.1.2 Socio-political component	0.404	W	0.385	T	0.391	T	0.383	T	0.399	T
(1) Respect the law and order	0.353	S	0.348	O	0.369	O	0.356	O	0.373	O
(2) Community and sustainable development	0.399	W	0.388	T	0.384	T	0.383	T	0.408	T
(3) Participation in political activities.	0.469	S	0.426	T	0.424	T	0.414	T	0.418	T
3.2 Quality of good global citizen	0.350	S	0.352	O	0.358	O	0.360	O	0.378	T
3.2.1 Economic component	0.349	S	0.352	O	0.358	O	0.360	O	0.378	T
(1) Recognition of global issues	0.413	W	0.360	O	0.364	O	0.366	O	0.385	T
(2) Respect for diversity and human values	0.345	S	0.348	O	0.356	O	0.356	O	0.372	O
3.2.2 Socio-political component	0.351	S	0.352	O	0.358	O	0.360	O	0.378	T
(1) Make the world a better place	0.380	S	0.360	O	0.364	O	0.366	O	0.385	T
(2) Responsibility for their actions	0.352	S	0.348	O	0.356	O	0.356	O	0.372	O

Table 38: The SWOT of the financial education management reform for enhancing the quality citizenship in Cambodia obtained from the overall analysis of the internal and external environment

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W/ S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
Finance management reform										
1. Linking budget to education policies	0.381	S	0.385	T	0.379	T	0.383	T	0.386	T
1.1 Quality of good national citizen	0.393	W	0.392	T	0.390	T	0.379	T	0.391	T
1.1.1 Economic component	0.392	W	0.395	T	0.389	T	0.383	T	0.388	T
(1) Knowledge and hard skills	0.398	W	0.401	T	0.386	T	0.395	T	0.389	T
(2) Soft and life skills	0.382	S	0.385	T	0.388	T	0.372	O	0.384	T
1.1.2 Socio-political component	0.402	W	0.388	T	0.395	T	0.375	T	0.389	T
(1) Respect the law and order	0.374	S	0.355	O	0.368	O	0.364	O	0.361	O

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W / S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
(2) Community and sustainable development	0.382	S	0.387	T	0.393	T	0.365	O	0.391	T
(3) Participation in political activities.	0.454	W	0.432	T	0.425	T	0.405	T	0.426	T
1.2 Quality of good global citizen	0.369	S	0.364	O	0.361	O	0.368	O	0.375	T
1.2.1 Economic component	0.372	S	0.365	O	0.358	O	0.364	O	0.368	O
(1) Recognition of global issues	0.406	W	0.367	O	0.364	O	0.368	O	0.381	T
(2) Respect for diversity and human values	0.346	S	0.361	O	0.353	O	0.358	O	0.361	O
1.2.2 Socio-political component	0.368	S	0.371	O	0.368	O	0.371	O	0.374	O
(1) Make the world a better place	0.372	S	0.367	O	0.364	O	0.368	O	0.381	T
(2) Responsibility for their actions	0.343	S	0.361	O	0.353	O	0.358	O	0.361	O
2. Increase financial autonomy and accountability of schools	0.388	W	0.383	T	0.388	T	0.389	T	0.385	T
2.1 Quality of good national citizen	0.380	S	0.390	T	0.396	T	0.391	T	0.392	T
2.1.1 Economic component	0.382	S	0.388	T	0.388	T	0.392	T	0.387	T
(1) Knowledge and hard skills	0.388	W	0.404	T	0.394	T	0.404	T	0.395	T
(2) Soft and life skills	0.379	S	0.373	O	0.383	T	0.384	T	0.379	T
2.1.2 Socio-political component	0.377	S	0.393	T	0.399	T	0.387	T	0.393	T
(1) Respect the law and order	0.375	S	0.365	O	0.373	O	0.368	O	0.375	T
(2) Community and sustainable development	0.389	W	0.394	T	0.407	T	0.376	T	0.391	T
(3) Participation in political activities.	0.442	W	0.425	T	0.430	T	0.421	T	0.413	T
2.2 Quality of good global citizen	0.389	W	0.358	O	0.366	O	0.366	O	0.372	O
2.2.1 Economic component	0.385	W	0.358	O	0.366	O	0.366	O	0.372	O
(1) Recognition of global issues	0.410	W	0.369	O	0.375	T	0.371	O	0.389	T
(2) Respect for diversity and human values	0.358	S	0.353	O	0.358	O	0.363	O	0.357	O
2.2.2 Socio-political component	0.399	W	0.358	O	0.366	O	0.366	O	0.372	O
(1) Make the world a better place	0.387	W	0.369	O	0.375	T	0.371	O	0.389	T
(2) Responsibility for their actions	0.364	S	0.353	O	0.358	O	0.363	O	0.357	O
3. Education budget audit	0.386	W	0.383	T	0.389	T	0.373	O	0.388	T
3.1 Quality of good national citizen	0.387	W	0.387	T	0.399	T	0.395	T	0.395	T
3.1.1 Economic component	0.387	W	0.378	T	0.393	T	0.396	T	0.391	T
(1) Knowledge and hard skills	0.399	W	0.385	T	0.399	T	0.399	T	0.403	T
(2) Soft and life skills	0.376	S	0.372	O	0.386	T	0.393	T	0.384	T
3.1.2 Socio-political component	0.390	W	0.396	T	0.403	T	0.395	T	0.400	T
(1) Respect the law and order	0.369	S	0.373	O	0.382	T	0.375	T	0.378	T

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W / S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
(2) Community and sustainable development	0.379	S	0.386	T	0.399	T	0.397	T	0.390	T
(3) Participation in political activities.	0.436	W	0.435	T	0.428	T	0.409	T	0.432	T
3.2 Quality of good global citizen	0.375	W	0.358	O	0.364	O	0.367	O	0.378	T
3.2.1 Economic component	0.391	W	0.358	O	0.364	O	0.367	O	0.378	T
(1) Recognition of global issues	0.415	W	0.373	O	0.374	O	0.372	O	0.376	T
(2) Respect for diversity and human values	0.369	S	0.348	O	0.355	O	0.359	O	0.377	T
3.2.2 Socio-political component	0.364	S	0.358	O	0.364	O	0.367	O	0.378	T
(1) Make the world a better place	0.377	S	0.373	O	0.374	O	0.372	O	0.376	T
(2) Responsibility for their actions	0.353	S	0.348	O	0.355	O	0.359	O	0.377	T

Table 39: The SWOT of the human resources education management reform for enhancing the quality citizenship in Cambodia obtained from the overall analysis of the internal and external environment

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W / S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
HR management reform										
1. Increase teacher PRESET qualifications	0.356	S	0.367	O	0.380	T	0.373	O	0.384	T
1.1 Quality of good national citizen	0.363	S	0.376	T	0.389	T	0.378	T	0.395	T
1.1.1 Economic component	0.347	S	0.370	O	0.384	T	0.377	T	0.389	T
(1) Knowledge and hard skills	0.355	S	0.372	O	0.391	T	0.386	T	0.399	T
(2) Soft and life skills	0.343	S	0.368	O	0.381	T	0.369	O	0.382	T
1.1.2 Socio-political component	0.373	S	0.382	T	0.391	T	0.384	T	0.398	T
(1) Respect the law and order	0.333	S	0.360	O	0.371	O	0.360	O	0.372	O
(2) Community and sustainable development	0.364	S	0.379	T	0.392	T	0.379	T	0.396	T
(3) Participation in political activities.	0.427	W	0.411	T	0.423	T	0.410	T	0.421	T
1.2 Quality of good global citizen	0.351	S	0.336	O	0.350	O	0.360	O	0.365	O
1.2.1 Economic component	0.354	S	0.336	O	0.350	O	0.360	O	0.365	O
(1) Recognition of global issues	0.384	W	0.334	O	0.356	O	0.353	O	0.372	O
(2) Respect for diversity and human values	0.327	S	0.342	O	0.347	O	0.364	O	0.363	O
1.2.2 Socio-political component	0.348	S	0.336	O	0.350	O	0.360	O	0.365	O
(1) Make the world a better place	0.350	S	0.334	O	0.356	O	0.353	O	0.372	O
(2) Responsibility for their actions	0.327	S	0.342	O	0.347	O	0.364	O	0.363	O
2. Provide INSET training	0.361	S	0.362	O	0.386	T	0.378	T	0.383	T

Education management reform for enhancing the quality citizenship in Cambodia	Internal environment	W/S	Political	T/O	Economy	T/O	Socio-cultural	T/O	Technology	T/O
2.1 Quality of good national citizen	0.369	S	0.373	O	0.392	T	0.384	T	0.390	T
2.1.1 Economic component	0.355	S	0.368	O	0.385	T	0.382	T	0.385	T
(1) Knowledge and hard skills	0.357	S	0.381	T	0.391	T	0.389	T	0.394	T
(2) Soft and life skills	0.356	S	0.358	O	0.379	T	0.375	T	0.377	T
2.1.2 Socio-political component	0.385	W	0.381	T	0.391	T	0.389	T	0.391	T
(1) Respect the law and order	0.355	S	0.357	O	0.367	O	0.363	O	0.366	O
(2) Community and sustainable development	0.388	W	0.365	O	0.388	T	0.377	T	0.396	T
(3) Participation in political activities.	0.413	W	0.418	T	0.430	T	0.430	T	0.424	T
2.2 Quality of good global citizen	0.348	S	0.333	O	0.375	T	0.375	T	0.406	T
2.2.1 Economic component	0.354	S	0.353	O	0.362	O	0.359	O	0.373	O
(1) Recognition of global issues	0.394	W	0.357	O	0.371	O	0.360	O	0.371	O
(2) Respect for diversity and human values	0.318	S	0.345	O	0.353	O	0.359	O	0.376	T
2.2.2 Socio-political component	0.346	S	0.353	O	0.362	O	0.359	O	0.373	O
(1) Make the world a better place	0.351	S	0.357	O	0.371	O	0.360	O	0.371	O
(2) Responsibility for their actions	0.331	S	0.345	O	0.353	O	0.359	O	0.376	T
3. Implement teacher performance assessment	0.354	S	0.369	O	0.386	T	0.379	T	0.381	T
3.1 Quality of good national citizen	0.354	S	0.377	T	0.393	T	0.382	T	0.393	T
3.1.1 Economic component	0.330	S	0.377	T	0.391	T	0.381	T	0.381	T
(1) Knowledge and hard skills	0.318	S	0.379	T	0.406	T	0.381	T	0.389	T
(2) Soft and life skills	0.347	S	0.375	T	0.377	T	0.385	T	0.378	T
3.1.2 Socio-political component	0.378	S	0.374	O	0.395	T	0.383	T	0.402	T
(1) Respect the law and order	0.354	S	0.350	O	0.372	O	0.355	O	0.374	O
(2) Community and sustainable development	0.360	S	0.374	O	0.396	T	0.383	T	0.405	T
(3) Participation in political activities.	0.420	S	0.396	T	0.417	T	0.419	T	0.426	T
3.2 Quality of good global citizen	0.352	S	0.351	O	0.373	O	0.362	O	0.368	O
3.2.1 Economic component	0.350	S	0.351	O	0.373	O	0.362	O	0.368	O
(1) Recognition of global issues	0.385	W	0.356	O	0.379	T	0.366	O	0.373	O
(2) Respect for diversity and human values	0.323	S	0.346	O	0.364	O	0.355	O	0.364	O
3.2.2 Socio-political component	0.347	S	0.351	O	0.373	O	0.362	O	0.368	O
(1) Make the world a better place	0.359	S	0.356	O	0.379	T	0.366	O	0.373	O
(2) Responsibility for their actions	0.335	S	0.346	O	0.364	O	0.355	O	0.364	O

4.4 Development of the education management reform strategies for enhancing quality citizenship in Cambodia

There are five parts of the development of the education management reform strategies for enhancing quality citizenship in Cambodia.

4.4.1 The researcher design the first draft of the education management reform strategies for enhancing quality citizenship in Cambodia using the information obtained from the TOWS Matrix.

4.4.2 The individual experts and stakeholders examine the suitability and feasibility of the first draft of the education management reform strategies for enhancing quality citizenship in Cambodia.

4.4.3 Revise the first draft and develop the second draft

4.4.4 The focus group examine the suitability and feasibility of the second draft education management reform strategies for enhancing quality citizenship in Cambodia.

4.4.5 The researcher revises the second draft and produces the final, comprehensive version of education management reform strategies for enhancing quality citizenship in Cambodia.

4.4.1 The researcher designs the first draft of the education management reform strategies for enhancing quality citizenship in Cambodia using the information obtained from the TOWS Matrix.

The development of the first draft education management reform strategies consists of two processes.

4.4.1.1 TOWS Matrix

4.4.1.2 Formulate the first draft of education management reform strategies based on the results of TOWS Matrix

4.4.1.1 TOWS Matrix

The researcher developed the first draft of education management reform strategies for enhancing the quality citizenship using the information from the TOWS Matrix.

Step 1: Prepare the strengths, weaknesses, opportunities and threats (SWOT) analysis of the education management reform for enhancing the quality citizenship as appeared in Table 40.

Step 2: The researcher conducts a TOWS analysis and develop a TOWS Matrix chart using the SWOT analysis and put the PNI Modified of strengths, weaknesses, opportunities and threats in the order from highest to lowest. Use TOWS Matrix to match the strengths, weaknesses, opportunities and threats, pairs are identified as strengths-opportunities (SO), weaknesses-opportunities (WO), strengths-threats (ST) and weaknesses-threats (WT) as appeared in Table 41. The researcher matches the internal environment with the external environment to formulate the following strategies as follows:

Firstly, Match the weaknesses with threats to develop defensive strategies in order to reduce weaknesses of education reforms, to avoid threats and ensure smooth implementation with minimum loss.

Secondly, Match the weaknesses with opportunities to develop a turnaround strategy to address the weaknesses of the reforms and make use of the opportunities to chart the course of more dynamic reforms.

Thirdly, Match the strengths and the threats to diversify reform strategies aimed at using the strengths, avoid threats and implement reform programs.

Fourthly, Match the strengths and opportunities to develop aggressive strategies in order to use the strengths and use opportunities to implement reform programs.

Step 3: Prepare a summary of the results of the TOWS Matrix analysis and develop the first draft of the strategies, sub-strategies and procedures of the education management reform for enhancing the quality citizenship in Cambodia, as indicated in Table 42 and Table 43 (for procedures).

Table 40: The strengths, weaknesses, opportunities and threats (SWOT) analysis of the education management reform for enhancing the quality citizenship in Cambodia

Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
1-Administrative and general Management S1: Education policy and ESP (0.347)	1-Administrative and general Management	Politics: 1-Administrative and general Management	Politics: 1-Administrative and general Management

Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
Quality of national citizen (0.361)	W1: Ensure community involvement (0.434)	O1: Education policy and ESP (0.374)	T1: Ensure community involvement (0.380)
-Economic component (0.364)	Quality of national citizen (0.404)	Quality of good global citizen (0.360)	Quality of national citizen (0.389)
-Socio-political component (0.360)	-Economic component (0.418)	-Economic component (0.363)	-Economic component (0.404)
Quality of good global citizen (0.343)	- Socio-political component (0.393)	-Socio-political component (0.354)	-Socio-political component (0.383)
-Economic component (0.336)	Quality of good global citizen (0.404)	O2: School-Based Management (0.369)	2-Financial Management
-Socio-political component (0.342)	-Economic component (0.418)	Quality of good global citizen (0.354)	T2: Link budget to education policies (0.385)
S2: Implement School-Based Management (0.361)	-Socio-political component (0.393)	-Economic component (0.365)	Quality of national citizen (0.392)
Quality of national citizen (0.355)	2-Academic Management	-Socio-political component (0.345)	-Economic component (0.395)
-Economic component (0.366)	W2: Conduct regular assessment of students (0.383)	2-Academic Management	-Socio-political component (0.388)
-Socio-political component (0.344)	Quality of national citizen (0.390)	O3: Integrate Good Citizenship into school curriculum and textbooks (0.354)	T3: Increase financial autonomy and accountability of schools (0.383)
Quality of good global citizen (0.357)	-Economic component (0.377)	Quality of national citizen (0.367)	Quality of national citizen (0.390)
-Economic component (0.347)	-Socio-political component (0.404)	-Economic component (0.339)	-Economic component (0.388)
-Socio-political component (0.363)	3-Financial Management	Quality of good global citizen (0.333)	-Socio-political component (0.393)
2-Academic Management	W3: Increase financial autonomy and accountability of schools (0.388)	-Economic component (0.354)	T4: Conduct education budget audit (0.383)
S3: Integrate Good Citizenship into school curriculum and textbooks (0.349)	Quality of good global citizen (0.389)	-Socio-political component (0.308)	Quality of national citizen (0.387)
Quality of national citizen (0.354)	-Economic component (0.385)	O4: Improving teaching methods (0.358)	-Economic component (0.378)
-Economic component (0.343)	-Socio-political component (0.399)	Quality of national citizen (0.365)	-Socio-political component (0.396)
-Socio-political component (0.363)	W4: Conduct education budget audit (0.386)	-Economic component (0.362)	Cambodian economy: 1-Administrative and general Management
Quality of good global citizen (0.343)	Quality of national citizen (0.387)	Quality of good global citizen (0.354)	T5: School-Based Management (0.375)
-Economic component (0.353)	-Economic component (0.387)	-Economic component (0.362)	Quality of national citizen (0.383)
- Socio-political component (0.334)	-Socio-political component (0.390)	-Socio-political component (0.346)	-Economic component (0.382)
S4: Improve teaching methods (0.352)		O5: Conduct regular assessment of students (0.371)	-Socio-political component (0.384)
Quality of national citizen (0.343)		Quality of good global citizen (0.352)	T6: Community involvement (0.390)
-Economic component (0.354)		-Economic component (0.352)	Quality of national citizen (0.398)
- Socio-political component (0.334)		-Socio-political component (0.352)	-Economic component (0.404)
Quality of good global citizen (0.358)		3-HR Management	-Socio-political component (0.395)

Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
-Economic component (0.345)		O6: Increase PRESET teacher qualifications (0.367)	Quality of good global citizen (0.375)
- Socio-political component (0.369)		Quality of good global citizen (0.336)	-Economic component (0.382)
3-Financial Management		-Economic component (0.336)	2-Academic Management
S5: Linking budget to education policies (0.381)		-Socio-political component (0.336)	T7: Improve teaching methods (0.375)
Quality of good global citizen (0.369)		O7: : Provide INSET training (0.362)	T8: Conduct regular assessment of students (0.379)
-Economic component (0.372)		Quality of good global citizen (0.333)	Quality of national citizen (0.383)
- Socio-political component (0.368)		-Economic component (0.353)	-Socio-political component (0.391)
4-HR Management		-Socio-political component (0.353)	3-Financial Management
S6: Increase PRESET teacher qualifications (0.356)		O8: Implement teacher performance assessment (0.369)	T9: Linking budget to education policies (0.379)
Quality of national citizen (0.363)		Quality of good global citizen (0.351)	Quality of national citizen (0.390)
-Economic component (0.347)		-Economic component (0.351)	-Economic component (0.389)
- Socio-political component (0.373)		-Socio-political component (0.351)	-Socio-political component (0.389)
Quality of good global citizen (0.351)		Economy:	T10: Increase financial autonomy and accountability of schools (0.388)
-Economic component (0.354)		1-Administrative and general Management	Quality of national citizen (0.396)
- Socio-political component (0.348)		O9: Education policy and ESP (0.367)	-Economic component (0.388)
S7: Provide INSET training (0.361)		Quality of national citizen (0.373)	-Socio-political component (0.399)
Quality of national citizen (0.369)		-Economic component (0.368)	T11: Education budget audit (0.389)
-Economic component (0.355)		2-Academic Management	Quality of national citizen (0.399)
Quality of good global citizen (0.348)		O10: Integrate Good Citizenship into school curriculum and textbooks (0.362)	-Economic component (0.393)
-Economic component (0.354)		Quality of national citizen (0.371)	-Socio-political component (0.403)
- Socio-political component (0.346)		-Economic component (0.341)	4-HR Management
S8: Implement teacher performance assessment (0.354)		Quality of good global citizen (0.347)	T12: Increase PRESET teacher qualifications (0.380)
Quality of national citizen (0.354)		-Economic component (0.373)	Quality of national citizen (0.389)
-Economic component (0.330)		-Socio-political component (0.325)	-Economic component (0.384)
- Socio-political component (0.378)		Socio-culture:	T13: Provide INSET training (0.386)
Quality of good global citizen (0.352)		1-Academic Management	Quality of national citizen (0.392)
-Economic component (0.350)		O11: Integrate Good Citizenship into school	

Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
-Socio-political component (0.347)		curriculum and textbooks (0.373) Quality of good global citizen (0.362) -Socio-political (0.339) O12: Improve teaching methods (0.373) Quality of national citizen (0.373) -Economic component (0.371) Quality of good global citizen (0.373) -Socio-political component (0.330) 2-Financial Management O13: Education budget audit (0.373) Quality of good global citizen (0.367) -Economic component (0.367) -Socio-political component (0.367) 3-HR Management O14: Increase PRESET teacher qualifications (0.373) Quality of good global citizen (0.360) -Economic component (0.360) -Socio-political component (0.360)	-Economic component (0.385) -Socio-political component (0.391) Quality of good global citizen (0.375) T14: Implement teacher performance assessment (0.386) Quality of national citizen (0.393) -Economic component (0.391) -Socio-political component (0.395) Socio-culture: 1-Administrative and general Management T15: Education policy and ESP (0.392) Quality of national citizen (0.397) -Economic component (0.398) -Socio-political component (0.395) Quality of good global citizen (0.382) -Economic component (0.390) T16: Implement School-Based Management (0.381) Quality of national citizen (0.384) -Economic component (0.377) -Socio-political component (0.395) T17: Ensure community involvement (0.394) Quality of national citizen (0.398) -Economic component (0.401) -Socio-political component (0.395) Quality of good global citizen (0.380) -Economic component (0.391) -Socio-political component (0.377)

Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
			2-Academic Management
			T18: Conduct regular assessment of students (0.376)
			Quality of national citizen (0.380)
			-Economic component (0.376)
			-Socio-political component (0.383)
			3-Financial Management
			T19: Linking budget to education policies (0.383)
			Quality of national citizen (0.379)
			-Economic component (0.383)
			-Socio-political component (0.375)
			T20: Increase financial autonomy and accountability of schools (0.389)
			Quality of national citizen (0.391)
			-Economic component (0.392)
			-Socio-political component (0.387)
			4-HR Management
			T21: Provide INSET training (0.378)
			Quality of national citizen (0.384)
			-Economic component (0.382)
			-Socio-political component (0.389)
			Quality of global citizen (0.375)
			T22: Implement teacher performance assessment (0.379)
			Quality of national citizen (0.382)
			-Economic component (0.381)
			-Socio-political component (0.383)
			Technology:
			1-Administrative and general Management

Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
			T23: Education policy and ESP (0.384)
			Quality of national citizen (0.399)
			-Economic component (0.404)
			-Socio-political component (0.393)
			Quality of good global citizen (0.373)
			-Economic component (0.378)
			T24: School-Based Management (0.387)
			Quality of national citizen (0.391)
			-Economic component (0.391)
			-Socio-political component (0.391)
			T25: Community involvement (0.393)
			Quality of national citizen (0.403)
			-Economic component (0.394)
			-Socio-political component (0.409)
			Quality of good global citizen (0.378)
			-Economic component (0.387)
			2-Academic Management
			T26: Integrate Good Citizenship into school curriculum and textbooks (0.376)
			Quality of national citizen (0.387)
			-Socio-political component (0.420)
			T27: Improve teaching methods (0.384)
			Quality of national citizen (0.392)
			-Economic component (0.397)
			-Socio-political component (0.391)
			Quality of good global citizen (0.375)
			-Economic component (0.375)
			-Socio-political component (0.410)

Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
			T28: Conduct regular assessment of students (0.387) Quality of national citizen (0.390) -Economic component (0.384) -Socio-political component (0.399) Quality of good global citizen (0.378) -Economic component (0.378) -Socio-political component (0.378) 3-Financial Management T29: Linking budget to education policies (0.386) Quality of national citizen (0.391) -Economic component (0.388) -Socio-political component (0.389) Quality of good global citizen (0.375) T30: Increase financial autonomy and accountability of schools (0.385) Quality of national citizen (0.392) -Economic component (0.387) -Socio-political component (0.393) T31: Education budget audit (0.388) Quality of national citizen (0.395) -Economic component (0.391) -Socio-political component (0.400) Quality of good global citizen (0.378) -Economic component (0.378) -Socio-political component (0.378) 4-HR Management T32: Increase PRESET teacher qualifications (0.384)

209

Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
			Quality of national citizen (0.395) -Economic component (0.389) -Socio-political component (0.398) T33: Provide INSET training (0.383) Quality of national citizen (0.390) -Economic component (0.385) -Socio-political component (0.391) Quality of good global citizen (0.406) T34: Implement teacher performance assessment (0.381) Quality of national citizen (0.393) -Economic component (0.381) -Socio-political component (0.402)

Table 41: TOWS Matrix of education management reform for enhancing the quality citizenship in Cambodia

	Strengths (S)	Weakness (W)
	1-Administrative and general Management S1: Education policy and ESP (0.347) Quality of national citizen (0.361) -Economic component (0.364) -Socio-political component (0.360) Quality of good global citizen (0.343) -Economic component (0.336) -Socio-political component (0.342) S2: Implement School-Based Management (0.361) Quality of national citizen (0.355) -Economic component (0.366) -Socio-political component (0.344) Quality of good global citizen (0.357) -Economic component (0.347) -Socio-political component (0.363)	1-Administrative and general Management W1: Ensure community involvement (0.434) Quality of national citizen (0.404) -Economic component (0.418) -Socio-political component (0.393) Quality of good global citizen (0.404) -Economic component (0.418) -Socio-political component (0.393) 2-Academic Management W2: Conduct regular assessment of students (0.383) Quality of national citizen (0.390) -Economic component (0.377) -Socio-political component (0.404) 3-Financial Management W3: Increase financial autonomy and accountability of schools (0.388)

	2-Academic Management S3: Integrate Good Citizenship into school curriculum and textbooks (0.349) Quality of national citizen (0.354) -Economic component (0.343) -Socio-political component (0.363) Quality of good global citizen (0.343) -Economic component (0.353) -Socio-political component (0.334) S4: Improve teaching methods (0.352) Quality of national citizen (0.343) -Economic component (0.354) -Socio-political component (0.334) Quality of good global citizen (0.358) -Economic component (0.345) -Socio-political component (0.369) 3-Financial Management S5: Linking budget to education policies (0.381) Quality of good global citizen (0.369) -Economic component (0.372) -Socio-political component (0.368) 4-HR Management S6: Increase PRESET teacher qualifications (0.356) Quality of national citizen (0.363) -Economic component (0.347) -Socio-political component (0.373) Quality of good global citizen (0.351) -Economic component (0.354) -Socio-political component (0.348) S7: Provide INSET training (0.361) Quality of national citizen (0.369) -Economic component (0.355) Quality of good global citizen (0.348) -Economic component (0.354) -Socio-political component (0.346)	Quality of good global citizen (0.389) -Economic component (0.385) -Socio-political component (0.399) W4: Conduct education budget audit (0.386) Quality of national citizen (0.387) -Economic component (0.387) -Socio-political component (0.390)

	S8: Implement teacher performance assessment (0.354) Quality of national citizen (0.354) -Economic component (0.330) -Socio-political component (0.378) Quality of good global citizen (0.352) -Economic component (0.350) -Socio-political component (0.347)	
Opportunities (O) Politics: 1-Administrative and general Management O1: Education policy and ESP (0.374) Quality of good global citizen (0.360) -Economic component (0.363) -Socio-political component (0.354) O2: School-Based Management (0.369) Quality of good global citizen (0.354) -Economic component (0.365) -Socio-political component (0.345) 2-Academic Management O3: Integrate Good Citizenship into school curriculum and textbooks (0.354) Quality of national citizen (0.367) -Economic component (0.339) -Socio-political component (0.406) Quality of good global citizen (0.333) -Economic component (0.354) -Socio-political component (0.308) O4: Improving teaching methods (0.358) Quality of national citizen (0.365) -Economic component (0.362) Quality of good global citizen (0.354) -Economic component (0.362) -Socio-political component (0.346)	SO1: Political and government policy and economic aspects become opportunities that contribute to the strengths of implementing Education policy and ESP to enhance quality global citizenship, focusing on knowledge, hard, soft and life skills (0.347, 0.374, 0.367) SO2: Political and government policy become an opportunity that contributes to the strength of implementing SBM to promote quality national and global citizenship (0.361, 0.369) SO3: Political and government policy and economy aspects become the opportunities that contribute to the strengths of integrating Good Citizenship into school curriculum and textbooks to promote quality national, and global citizenship, focusing on the respect of law and order, community and sustainable development, participation in political activities, recognition of global fissues, and the respect for diversity and human values (0.349, 0.354, 0.362) SO4: Political and government policy becomes opportunities that contribute to the strengths of improving teaching methods to promote quality national and global citizenship (0.352, 0.358) SO5: Political and government policy and socio-culture aspects become opportunities that contribute to the strengths	WO1: Political and government policy becomes an opportunity that reduces the weaknesses of conducting regular assessment of students to promote quality national and global citizenship (0.383, 0.371) WO2: Socio-cultural aspects become an opportunity that reduces the weaknesses of conducting education budget audit to promote quality national and global citizenship (0.386, 0.373)

O5: Conduct regular assessment of students (0.371) Quality of good global citizen (0.352) -Economic component (0.352) -Socio-political component (0.352) 3-HR Management O6: Increase PRESET teacher qualifications (0.367) Quality of good global citizen (0.336) -Economic component (0.336) -Socio-political component (0.336) O7: : Provide INSET training (0.362) Quality of good global citizen (0.333) -Economic component (0.353) -Socio-political component (0.353) O8: Implement teacher performance assessment (0.369) Quality of good global citizen (0.351) -Economic component (0.351) -Socio-political component (0.351) Economy: 1-Administrative and general Management O9: Education policy and ESP (0.367) Quality of national citizen (0.373) -Economic component (0.368) 2-Academic Management O10: Integrate Good Citizenship into school curriculum and textbooks (0.362) Quality of national citizen (0.371) -Economic component (0.341) Quality of good global citizen (0.347) -Economic component (0.373) -Socio-political component (0.325) Socio-culture: 1-Academic Management O11: : Integrate Good Citizenship into school curriculum and textbooks (0.373)	of increasing teacher's PRESET qualifications to promote quality national and global citizenship (0.356, 0.367, 0.377) SO6: Political and government policy becomes opportunities that contribute to the strengths of providing INSET training to promote quality global citizenship, focusing on recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions (0.361, 0.362) SO7: Political and government policy becomes an opportunity that contributes to the strengths of implementing teacher performance assessment to promote quality global citizenship, focusing on recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions (0.354, 0.369)	

Quality of global citizen (0.362) -Socio-political component (0.339) O12: : Improve teaching methods (0.373) Quality of good national citizen (0.373) -Economic component (0.371) Quality of good global citizen (0.373) -Soio-political component (0.330) 2-Financial Management O13: Education budget audit (0.373) Quality of good global citizen (0.367) -Economic component (0.367) -Socio-political component (0.367) 4-HR Management O14: Increase PRESET teacher qualifications (0.373) Quality of global citizen (0.360) -Economic component (0.360) -Socio-political component (0.360)		
Threats (T) Politics: 1-Administrative and general Management T1: Ensure community involvement (0.380) Quality of national citizen (0.389) -Economic component (0.404) -Socio-political component (0.383) 2-Financial Management T2: Link budget to education policies (0.385) Quality of national citizen (0.392) -Economic component (0.395) -Socio-political component (0.388) T3: Increase financial autonomy and accountability of schools (0.383) Quality of national citizen (0.390) -Economic component (0.388) -Socio-political component (0.393)	ST1: The socio-culture and technology become threats to the strengths of of implementing Education policy and ESP to promote quality national and global citizenship (0.347, 0.392, 0.384) ST2: The Cambodian economy, socio-culture and technology become threats to the strengths of implementing SBM to promote quality national citizenship (0.361, 0.375, 0.381, 0.387) ST3: Technology become threats to the strengths of integrating Good Citizenship into school curriculum and textbooks to promote quality national citizen, focusing on how to make the world a better place and responsibility or action (0.349, 0.376) ST4: Economy and technology aspects become threats to the strengths of improving teaching methods to promote quality	WT1: Political and government policy, economy, socio-cultural, and technology become threats to the weaknesses of ensuring community involvement in school management to promote quality national citizenhip, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities (0.434, 0.380, 0.390, 0.394, 0.393) WT2: Economy, socio-cultural, and technology become threats to the weaknesses of conducting regular assessment of students to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities (0.383, 0.379, 0.476, 0.387)

T4: Conduct education budget audit (0.383) Quality of national citizen (0.387) -Economic component (0.378) -Socio-political component (0.396) Cambodian economy: 1-Administrative and general Management T5: School-Based Management (0.375) Quality of national citizen (0.383) -Economic component (0.382) -Socio-political component (0.384) T6: Community involvement (0.390) Quality of national citizen (0.398) -Economic component (0.404) -Socio-political component (0.395) Quality of good global citizen (0.375) -Economic component (0.382) 2-Academic Management T7: Improve teaching methods (0.375) T8: Conduct regular assessment of students (0.379) Quality of national citizen (0.383) -Socio-political component (0.391) 3-Financial Management T9: Linking budget to education policies (0.379) Quality of national citizen (0.390) -Economic component (0.389) -Socio-political component (0.389) T10: Increase financial autonomy and accountability of schools (0.388) Quality of national citizen (0.396) -Economic component (0.388) -Socio-political component (0.399) T11: Education budget audit (0.389) Quality of national citizen (0.399) -Economic component (0.393)	national and global citizen (0.352, 0.375, 0.384) ST5: Political and government policy, the Cambodian economy, socio-culture and technology become threats to the strengths of linking budget to education politicies to promote both quality national and global citizenship (0.381, 0.385, 0.379, 0.383, 0.386) ST6: The Cambodian economy and technology become threats to the strengths of increasing PRESET teacher qualifications to promote quality national citizenship, focusing on knowledge, hard, soft and life skills (0.356, 0.380, 0.384) ST7: The Cambodian economy, socio-culture and technology become threats to the strengths of providing INSET training to promote quality national and global citizenship (0.361, 0.386, 0.378, 0.383) ST8: Economy, socio-cultural and technology become threats to the strengths of implementing teacher performance assessment to promote quality national citizen, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities (0.354, 0.386, 0.379, 0.381)	WT3: Political, economy, socio-cultural, and technology become threats to the weaknesses of increasing financial autonomy and accountability of schools to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities (0.388, 0.383, 0.388, 0.389, 0.385) WT4: Political, economy, and technology become threats to the weaknesses of conducting education budget audit to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities (0.386, 0.383, 0.389, 0.388)

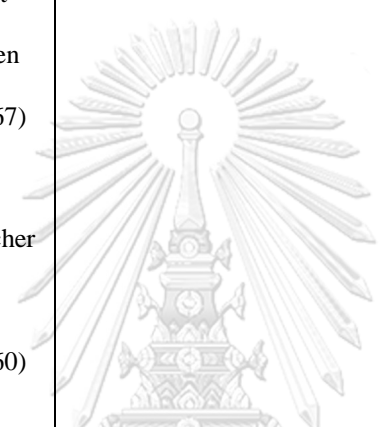| -Socio-political component (0.403) 4-HR Management T12: Increase PRESET teacher qualifications (0.380) Quality of national citizen (0.389) -Economic component (0.384) T13: Provide INSET training (0.386) Quality of national citizen (0.392) -Economic component (0.385) -Socio-political component (0.391) Quality of good global citizen (0.375) T14: Implement teacher performance assessment (0.386) Quality of national citizen (0.393) -Economic component (0.391) -Socio-political component (0.395) Socio-culture: 1-Administrative and general Management T15: Education policy and ESP (0.392) Quality of national citizen (0.397) -Economic component (0.398) -Socio-political component (0.395) Quality of good global citizen (0.382) -Economic component (0.390) T16: Implement School-Based Management (0.381) Quality of national citizen (0.384) -Economic component (0.377) -Socio-political component (0.395) T17: Ensure community involvement (0.394) Quality of national citizen (0.398) -Economic component (0.401) -Socio-political component (0.395) Quality of good global citizen (0.380) -Economic component (0.391) -Socio-political component (0.377)		

2-Academic Management T18: Conduct regular assessment of students (0.376) Quality of national citizen (0.380) -Economic component (0.376) -Socio-political component (0.383) 3-Financial Management T19: Linking budget to education policies (0.383) Quality of national citizen (0.379) -Economic component (0.383) -Socio-political component (0.375) T20: Increase financial autonomy and accountability of schools (0.389) Quality of national citizen (0.391) -Economic component (0.392) -Socio-political component (0.387) 4-HR Management T21: Provide INSET training (0.378) Quality of national citizen (0.384) -Economic component (0.382) -Socio-political component (0.389) Quality of global citizen (0.375) T22: Implement teacher performance assessment (0.379) Quality of national citizen (0.382) -Economic component (0.381) -Socio-political component (0.383) Technology: 1-Administrative and general Management T23: Education policy and ESP (0.384) Quality of national citizen (0.399) -Economic component (0.404) -Socio-political component (0.393) T24: School-Based Management (0.387) Quality of national citizen (0.391) -Economic component (0.391)		

-Socio-political component (0.391) T25: Community involvement (0.393) Quality of national citizen (0.403) -Economic component (0.394) -Socio-political component (0.409) Quality of good global citizen (0.378) -Economic component (0.387) 2-Academic Management T26: Integrate Good Citizenship into school curriculum and textbooks (0.376) Quality of national citizen (0.387) -Socio-political component (0.420) T27: Improve teaching methods (0.384) Quality of national citizen (0.392) -Economic component (0.397) -Socio-political component (0.391) Quality of good global citizen (0.375) -Economic component (0.375) -Socio-political component (0.410) T28: Conduct regular assessment of students (0.387) Quality of national citizen (0.390) -Economic component (0.384) -Socio-political component (0.399) Quality of good global citizen (0.378) -Economic component (0.378) -Socio-political component (0.378) 3-Financial Management T29: Link budget to education policies (0.386) Quality of national citizen (0.391) -Economic component (0.388) -Socio-political component (0.389) Quality of good global citizen (0.375)		

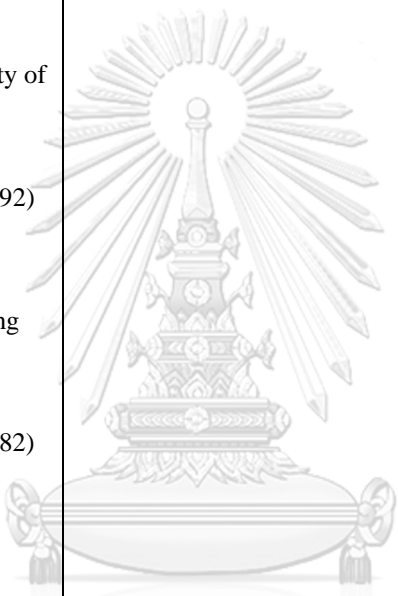|		
T30: Increase financial autonomy and accountability of schools (0.385) Quality of national citizen (0.392) -Economic component (0.387) -Socio-political component (0.393) T31: Education budget audit (0.388) Quality of national citizen (0.395) -Economic component (0.391) -Socio-political component (0.400) Quality of good global citizen (0.378) -Economic component (0.378) -Socio-political component (0.378) 3-HR Management T32: Increase PRESET teacher qualifications (0.384) Quality of national citizen (0.395) -Economic component (0.389) T33: Provide INSET training (0.383) Quality of national citizen (0.390) -Economic component (0.385) -Socio-political component (0.391) Quality of good global citizen (0.406) T34: Implement teacher performance assessment (0.381) Quality of national citizen (0.393) -Economic component (0.381) -Socio-political component (0.402).		

Table 42: The education management reform strategies and sub-strategies for enhancing the quality citizenship in Cambodia based on the PNI modified and TOWS Matrix

TOWS Matrix	Strategies and Sub-strategies:	Procedures:
WT: Political and government policy, economy, socio-culture and technology become threats to the weaknesses of increasing financial autonomy and	1. Education Financial Management Reform for Quality Citizenship (PNI modified = 0.385):	1.1. Increase support of political and government policy and technology and enhance economy and socio-culture to develop a sub-

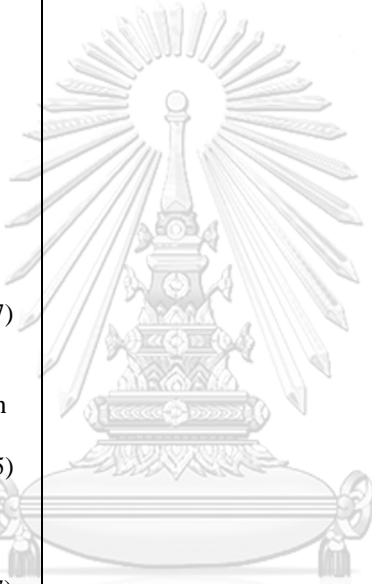| TOWS Matrix	Strategies and Sub-strategies:	Procedures:
accountability of schools to promote quality national citizenship.	1.1. Increasing financial autonomy and accountability of schools for quality citizenship (PNI modified = 0.388); 1.2. Conducting education budget audit for quality citizenship (PNI modified = 0.386); 1.3. Link budget to education policies for quality citizenship (PNI modified = 0.381);	strategy to increase financial autonomy and accountability of schools to promote quality national and global citizenship, especially by focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
WT: Political and government policy, economy, and technology become threats to the weaknesses of conducting education budget audit to promote quality national citizenship. WO: Socio-cultural aspects become an opportunity that reduces the weaknesses of conducting education budget audit to promote quality national and global citizenship		1.2. Increase support of political and government policy and enhance economy and technology to develop a sub-strategy to conduct education budget audit to promote quality national and global citizenship, especially by focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
ST: The Cambodian economy, socio-culture and technology become threats to the strengths of linking budget to education politicies to promote both quality national and global citizenship.		1.3. Increase support of the economy and technology and enhance the socio-culture to develop a sub-strategy of linking budget to education politicies to promote both quality national and global citizenship.
WT: Political and government policy, economy, socio-culture, and technology become threats to the weaknesses of ensuring community involvement in school management to promote quality national citizenship.	2. Administrative and General Management Reform for Quality Citizenship (PNI modified = 0.370): 2.1. Ensure community involvement in school management for quality citizenship (PNI modified = 0.434); 2.2. Implement School-Based Management for quality citizenship (PNI modified = 0.361); 2.3. Implement education policies and Education Strategic Plan for quality citizenship (PNI modified = 0.347);	2.1. Increase support of political and government policy and enhance economy, socio-culture and technology to become an opportunity that contributes to the strength of developing a sub-strategy of ensuring community involvement in the school management to promote quality national citizenhip, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
SO: Political and government policy becomes an opportunity that contributes to the strength of implementing School-Based Management to promote		2.2. Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to becomes an opportunity that

TOWS Matrix	Strategies and Sub-strategies:	Procedures:
quality national and global citizenship. ST: The economy, socio-culture and technology become threats to the strengths of implementing School-Based Management to promote quality national citizenship.		contributes to the strength of implementing School-Based Management to promote quality national and global citizenship.
SO: Political and economic aspects become opportunities that contribute to the strengths of implementing Education policy and ESP to enhance quality global citizenship. ST: The socio-culture and technology become threats to the strengths of implementing education policy and ESP to promote quality national and global citizenship.		2.3. Enhance politics and the economy and increase support of socio-culture and technology to develop a sub-strategy to implement education policy and ESP to enhance quality national and global citizenship.
WO: Political and government policy become an opportunity that reduces the weaknesses of conducting regular assessment of students to promote quality national and global citizenship. WT: Economy, socio-cultural, and technology become threats to the weaknesses of conducting regular assessment of students to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.	3. Academic Management Reform for quality citizenship (PNI modified = 0.360): 3.1. Conducting regular assessment of students for quality citizenship (PNI modified = 0.383); 3.2. Improving teaching methods for quality citizenship (PNI modified = 0.352); 3.3. Integrating Good Citizenship into school curriculum and textbooks for quality citizenship (PNI modified = 0.349);	3.1. Increase support of political and government policy and technology and enhance economy and socio-culture to develop an education management reform sub-strategy to conduct regular assessment of students to promote quality national and global citizen, especially by focusing on on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
SO: Political and government policy becomes opportunities that contribute to the strengths of improving teaching methods to promote quality national and global citizenship. ST: Economy and technology aspects become threats to the strengths of improving teaching methods to promote quality national and global citizenship.		3.2. Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy to improve teaching methods to promote quality national and global citizenship.
SO: Political and economy aspects become the opportunities that contribute to the strengths of integrating Good Citizenship into school curriculum and textbooks to		3.3. Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy to integrate Good

TOWS Matrix	Strategies and Sub-strategies:	Procedures:
promote quality national citizen and global citizenship. ST: Technology becomes threats to the strengths of integrating Good Citizenship into school curriculum and textbooks to promote quality national citizenship.		Citizenship into school curriculum and textbooks to promote quality national and global citizenship.
SO: Political and government policy becomes opportunities that contribute to the strengths of providing INSET training to promote quality national and global citizenship. ST: The Cambodian economy, socio-culture and technology become threats to the strengths of providing INSET training to promote quality national and global citizenship.	4. Human Resources Management Reform for quality citizenship (PNI modified = 0.357): 4.1. Providing INSET training for quality citizenship (PNI modified = 0.361); 4.2. Increasing teacher's PRESET qualifications for quality citizenship (PNI modified = 0.356); 4.3. Implementing teacher performance assessment for quality citizenship (PNI modified = 0.354);	4.1. Increase support of political and government policy and technology and enhance economy and socio-cultural aspects to develop an education management reform sub-strategy to provide INSET development to promote quality national and global citizenship.
SO: Political and government policy and socio-culture become opportunities that contribute to the strengths of increasing teacher's PRESET qualifications to promote quality national and global citizenship. ST: The Cambodian economy and technology become threats to the strengths of increasing teacher's PRESET qualifications to promote quality national citizenship.		4.2. Increase support of political and government policy and socio-cultural and enhance economy and technology to develop an education management reform sub-strategy to increasing PRESET teacher qualifications to promote quality national and global citizenship.
SO: Political and government policy becomes an opportunity that contributes to the strengths of implementing teacher performance assessment to promote quality national citizenship. ST: Economy, socio-culture and technology become threats to the strengths of implementing teacher performance assessment to promote quality national citizenship.		4.3. Increase support of political and government policy and technology and enhance the economy and socio-culture to develop an education management reform sub-strategy to implement teacher performance assessment to promote quality national and global citizenship, by focusing on on knowledge, hard, soft and life skills, respect of law and order, community and sustainable development, participation in political activities, as well as recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.

Table 43: The first draft procedures of the education management reform strategies for enhancing the quality citizenship in Cambodia

Main Strategy 1 Sub-strategy 1.1	Education Financial Management Reform for quality citizenship To increase financial autonomy and accountability of schools for quality citizenship
Procedures:	1.1. Increase support of political and government policy and technology and enhance economy and socio-culture to develop a sub-strategy to increase financial autonomy and accountability of schools to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport Prepares guidelines on financial autonomy and accountability of schools Adopt Manual Related to School Improvement Fund Financial Management Strengthen and expand the implementation of Program Budgeting and budget supervision Strengthen the implementation of new accounting, recording and reporting system Strengthen the implementation of mechanism and tools for enhancing the accountability and responsibility Improve budget transparency
	2. The Department of Finance (DOF) to provide training for school directors on financial management system for the implementation of School Improvement Funds for public educational institutions by increasing: (i) autonomy in the management of public institutions; (ii) accountability on budget management; and(iii) responsiveness to student achievement
	3. The Provincial Office of Education, Youth and Sport (POE) approves request for disbursement of School improvement funds submitted by the District Office of Education, Youth and Sport (DOE). The POE reviews and approves the school's financial statements, consolidated and submitted by the DOE.
	4. The District Office of Education, Youth and Sport (DOE) approves the School Development Strategic Plan and School Annual Operational Plan.
	5. School board/ School Management Committee School board/School Management Committee (SMC) will be established to adopt regulations related to role and responsibilities of school managers, parents and community members on school management The SMC approves School Development Strategic Plan, School Operational Plan and submit request for disbursement of Annual School Improvement Fund and is responsible for overseeing the implementation of the School Improvement Fund, executed by schools. Schools prepare policy on financial management, personnel management, teacher evaluation, hiring and dismissal, M&E. Schools to introduce the Result-based School Management System in accordance with good governance principles, ensuring efficiency and effectiveness, and achieving progress as proof of student achievement School to provide key roles to teachers, community, authorities, parents and students in participating in the planning and implementing process of school Development Plan and Annual Operational Plan

Main Strategy 1 Sub-strategy 1.2	Education Financial Management Reform for quality citizenship To conduct regular education budget audit for quality citizenship
Procedures:	Increase support of political and government policy and enhance economy and technology to develop a sub-strategy to conduct education budget audit to promote quality national citizenship, focusing on knowledge, hard, soft and life

	skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport Adopts an Action Plan on School Financial Audit Prepares and adopts a Master Plan on Internal Audit Strengthens planning and monitoring the use of the education budget via the expansion of a computerized financial management information system (FMIS) at all levels Develops the capacity of inspectors and school principals for the internal and external inspection systems
	2. The Department of Internal Audit (DIA) Conducts regular audit of schools to ensure that budgetary resources are used for improving students' learning outcomes Adopts standard report on income and expenditure as well as school's financial statements and school annual budget implementation. Ensures that funds are used to finance the following core activities and sub-activities: (1) Support to process: administrative process, capacity strengthening, equipment and furniture, repair and maintenance, water, electricity, telephone services and Internet; and (2) Improve the quality of education: Equitable access to education; teaching and learning materials and producing didactic materials; lab materials and experiments; materials of library, books and reading materials; support to vulnerable students, remedial class and prevent drop out; improve the environment and leisure space; life skills, agricultural, workshops and investment; health, hygiene, physical education, art and rewards; child and youth work; and construction.
	3. The Provincial Office of Education, Youth and Sport (POE) The POE develops a monitoring plan to monitor the progress of educational services at each school and ensure effectiveness The POE provides training courses to build the capacity of the District Training and Monitoring Teams (DTMT) to conduct internal audit;
	4. The District Office of Education, Youth and Sport (DOE) prepares a monitoring plan to monitor the progress of educational services in each school and ensure the efficiency.
	5. Schools The school principals use School Operational Budget (SOB) for teachers' continuous professional development and for improving teaching methods, designed to promote the respect for diversity and human values Strengthen financial management skills, develop and maintain a clear financial management system Promote accountability for management and monitoring of resource utilization, transparency, security, reliability and transparency. Create a transparency letterbox to get information or other complaints from stakeholders Strengthen internal inspection system, based on self-evaluation of schools and regular supervision School principal improves school performance with external findings and addresses audit findings;
	6. Teachers provide feedbacks to school directors on school management and ensure that the School Improvement Fund is used for teaching and learning process to improve learning outcomes.

Main Strategy 1 Sub-strategy 1.3	Education Financial Management Reform for quality citizenship To increase financial allocations linking budget to education policies for quality citizenship

Procedures:	Increase support of the economy and technology and enhance the socio-culture to develop sub-strategy to increase financial allocations linking budget to education policies to promote both quality national and global citizenship.
	1. Ministry of Education, Youth and Sport Adopts policy and guidelines on financial autonomy and accountability of schools Introduce Result-Based Management by linking inputs to output and outcome indicators, as stipulated in the ESP and education policies and ensure sound Monitoring and Evaluation (M&E) Allocate more resources to schools
	2. Ministry of Economy and Finance 2.1. Introduces financial allocations linking budget to education policies and performance 2.2. Uses Education Strategic Plan (ESP) and Annual Operational Plan (AOP) to allocate budgetary resources by sub-sector
	3. The Provincial Department of Education (POE) consolidates School Development Strategic Plan and ensure that financial resources are made available for the achievement of core indicators.
	4. Schools/Teachers The school principals and teachers should strive to educate the students to respect school regulations, timetables and teach the importance of the respect of law and social order as personal management techniques. School to introduce budget planning by determining the amount of funds needed to carry out School Development Plan according to specific timetable. The School Management Committee to prepare reports on School Development Plan implementation by monitoring and evaluating the actual implementation of the activities. School to use the School Improvement Fund for activities, such as: Increasing the use of materials and a better learning environment through material and equipment and the support of teaching and learning materials and teaching activities. Strengthening the ability of teachers. Assisting vulnerable children, slow-paced students and students subject to drop out Increasing enrolment rates, graduation rates, transition rate and completion rate in every level Providing health care services to students at all levels (health care, food safety and other risks).

Main Strategy 2 Sub-strategy 2.1	Administrative and General Management Reform for quality citizenship To ensure involvement of parents and local community in school management for quality citizenship
Procedures:	Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to ensure community involvement in school management to promote quality national and global citizenship, especially focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport Adopts an Operational Manual on SBM that encourage parents, community members and local authority to establish School Management Committee Organizes workshops and training on SBM for the Provincial Office of Education (POE), Teacher Education College (TEC), Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC)
	2. The Provincial Office of Education (POE)

	The POE provides training to the District Office of Education (DOE) on SBM, focusing on the modalities and responsibilities of parents, local authority and community members to participate in school management
	3. Schools School principals initiate the establishment of School Management Committee and encourage community to involve in school management; School principals create a climate in the school system which fosters openness, trust and collaboration; School principals organize regular meeting with parents and conducts home visit.
	4. The school management committee (SMC) The School Management Committee prepares and adopts School Development Plan and Classroom Development Plan with the participation of all key stakeholders, including Student Council; The SMC reviews school performance and transparency;
	5. Teachers The teachers organize regular meeting with parents and local communities to seek their support
	6. Students Student Council holds regular meeting with the students and present their views to the School Management Committee

Main Strategy 2 Sub-strategy 2.2	Administrative and General Management Reform for quality citizenship To implement School-Based Management (SBM) for quality citizenship
Procedures:	Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to avoid threats and consolidate the strength of implementing School-Based Management to promote quality national citizenship.
	1. Ministry of Education, Youth and Sport Adopts Policy, Framework and Guidelines on School-Based Management (SBM) Integrates SBM into the School Director Training and Teacher Training curriculum Establishes a financing formula for SBM schools Establishes a conceptual framework on Accountability in Education Provides schools with basic needs such as leadership and management competencies, teaching competencies, proper teaching and learning materials, and proper school infrastructure and environment Develops an M&E mechanism for SBM
	2. Directorate General of Education (DGE) Supports and expand the implementation of New Generation School Establishes and enlarge the budget package for school director training on SBM Establishes school mentoring program on SBM
	3. Teacher Training Department (TTD) The Teacher Training Department provides training to the Provincial Office of Education (POE) and school directors on SBM The Provincial Office of Education (POE) provides training to the District Office of Education (DOE) on SBM
	4. Schools School principals develop a rolling three-year and annual School Development Plan, by identifying school input, output and outcome indicators, as well as financing sources, with the participation of all key stakeholders; School principals facilitate, coordinate the development of and submit the 3 Years School Outcome Indicators and Targets and annual school improvement plan and budget.

	School principals submit the results of the evaluation of school performance against school effectiveness standards to SMC School principals manage, facilitate and coordinate all school fund raising activities. School principals gather real data and information gained from student assessments, assessment of teachers' competencies; school performance assessment Schools create a culture of information sharing by identifying problems jointly with all key stakeholders to promote trust in schools by communities, trust among school staff, and especially trust of parents in teachers. Schools prepare planning, budgeting, reporting and managing staff performance; Schools implement curriculum as guided and extra curricula; School principals conduct staff performance management system and propose to reward best performing staff, as well as propose administrative measures for non-performing staff;
	5. School Management Committee (SMC) School Management Committee provides support to teaching and learning, as well as resource mobilization and prepare school evaluation reports; SMC Approves 3-Years School Outcome Indicators and Targets, annual school improvement plan and budget, provides clearance on the evaluation of school performance against school effectiveness standards; and supports and involves in school fund raising; SMC approves the rewards for best staff, proposes administrative measures for non-performing staff to sub-national/national level, approves the reward for school principal best performance; SMC implements M&E system and reports progress;

Main Strategy 2 Sub-strategy 2.3	Administrative and General Management Reform for quality citizenship To implement education policies and Education Strategic Plan (ESP) for quality citizenship
Procedures:	Enhance political and government policy and economy and increase support of socio-culture and technology to develop a sub-strategy of implementing education policy and ESP to enhance quality national and global citizenship.
	1. Ministry of Education, Youth and Sport Updates education policies to be consistent with SDG-4; Prepares Education Strategic Plan (ESP) for 2019-2023 and Cambodia SDG-4 Roadmap Makes efforts to implement two main policies: (1): Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; and (2) Ensuring effective leadership and management of education staff at all levels; Coordinates the implementation of core breakthrough indicators and indicators by sub-sectors; Provides periodical and regular monitoring and review of ESP, focusing on education performance, implementation of strategies, programs, sub-programs and other relevant factors including inputs for education sector. Strengthens M&E system to ensure consistency among priorities and promote implementation of key reform programs. Ensures that education policies and ESP implementation produce highly-qualified human resources to meet the needs of the Industrial Development Policy (IDP), by strengthening education quality at all levels, and improves the implementation of curriculum by including soft skills including social communication skills, problem solving skills, respect for disciplines at work and other technical skills which are important for developing industrial foundation. Implements 5 pillars of Education Management Reforms including

	Teacher policy action plan (TPAP) and personnel development action plan, with clear budget. School inspection Assessment Curriculum Review, Textbooks and Improving School Infrastructure Higher Education Reform Builds capacity for leadership, management, focus on public educational institutions and the participation of community authorities, parents, guardian's student and all stakeholders.
	2. The Provincial Office of Education prepares provincial level ESP
	3. The schools: The school principals encourage community to involve in school management and ensure monitoring and evaluation of ESP and education policies in order to: Expand education services to vulnerable children group Improve the quality of educational services Increase enrolment and graduation rates in all study levels Reduce the dropout rate and repetition rate especially in the secondary schools
	4. Teachers: to improve teaching methods by combining classroom teaching with field visits so that the students familiarize themselves with the surrounding environment and understand the goals of sustainable development

Main Strategy 3 Sub-strategy 3.1	3. Academic Management Reform for quality citizenship To conducting regular assessment of students for quality citizenship
Procedures:	Increase support of political and government policy and technology and enhance economy and socio-culture to develop an education management reform sub-strategy to conduct regular assessment of students to promote quality national and global citizen, especially by focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport (MoEYS) Creates a national assessment framework, consisting of national examination systems at grade 9 and grade 12, assessments at grades 3, 6 and 8, Early Grade Reading Assessment (EGRA) and Early Grade Mathematic Assessment (EGMA) at grades 1, 2 and 3, classroom assessments and school-based assessments. Strengthens assessments at grades 3, 6 and 8, on Khmer, Math and Physics; Organizes participation in regional and international tests; Improves guidelines, marking standards and monitoring system of national examinations; Decentralizes responsibility regarding grade 9 examination to POE and Municipal Office of Education;
	2. The Department of Education Quality Assurance (EQAD) Develops the capacity of staff to conduct assessments and analyse results; Develops a system for classroom test
	3. The Department of Primary Education (DPE) Develops the capacity of staff to conduct EGRA and EGMA and analyse results;
	4. Schools School principals facilitate and coordinate the evaluation of school performance against school effectiveness standards; School principals compile data and information for, produce and submit the quarterly progress report on student assessment; School principals compile data and information for, produce and submit the annual progress report on achievement of school outcomes indicators and targets; School principals incorporate the result of student learning into the school report card
	5. The school management committee (SMC)

	School Management Committee approves the results from school performance evaluation, and endorses the annual progress report on achievement of school outcomes indicators and targets related to student's learning outcomes;
	6. Teachers Teachers develop tests on students' knowledge on political parties and political system Teachers provide continuous timely support to slow learners and develop teaching pattern and assessment system. Teachers encourage excellence among students;
	7. Students Students should display the following abilities: Read effectively and communicate clearly in written and oral form; Use numbers and do math and science work book; Think independently, critically, creatively and solve problems; Accept ownership for civic and personnel responsibilities; Respect others and act in an honourable and ethical manner; Work effectively both independently and cooperatively.

Main Strategy 3 Sub-strategy 3.2	3. Academic Management Reform for quality citizenship To improve teaching methods for quality citizenship
Procedures:	Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy in improving teaching methods to promote quality national and global citizenship.
	1. Ministry of Education, Youth and Sport Adopts Guidelines on Teaching Methods, aimed at producing a workforce that can think critically, solve problems, and work collaboratively; Adopts Guidelines on Classroom Management; Establishes teacher mentoring program to support new teachers; Introduces project-based learning, student-centered, inquiry-based learning methodologies; Implements Reading Standards and Methods for Grades 1, 2 and 3 and Reading Methods in library; Integrates ICT into Teaching Methods.
	2. The Department of Teacher Training (TTD) Provides on-service training based on teachers' competency gaps in teaching methods; Integrates new teaching methods, such as active learning, constructive learning, problem-based learning, discovery learning, and inquiry-based learning approaches, as well as new techniques of classroom management in teacher training curriculum; Prepares implementation mechanisms and supports regular professional development with the focus on the prepared and in place in-service trainings. Evaluates and properly manages all professional development related activities in order to have formal recognitions or giving equivalent certificates (high school diploma, bachelors, or masters…) Set specific time for in-service trainings. Provides in-service trainings every 5 years. Develops in-service credit system in all aspects. Set up competence development system for education staff in all means (in-place training, accelerated training programs, or short training courses for those holding degree). Supports new teachers to attend the practicing mechanism in place regularly
	3. Schools Provide materials for teacher to produce teaching aid;

	Provide training on effective lesson management, classroom management and on how to maintain focus in the classroom; provide technology so that the teachers can use technology in implementing new teaching methods.
	4. Teachers Get trained and updated on teaching methodologies; Produce teaching aid and applied appropriate teaching methodologies; Change the way of teaching away from 'passive learning' models in which students are thought of as 'receptacles' of knowledge to a new approach or active learning, in which students are active 'constructors' of new knowledge; Create Professional Learning Communities (PLCs) to share best practices in teaching; Apply classroom management techniques to maintain high levels of "withitness" to ensure constant awareness of all students and situations in the classroom; Make sure that students are able to manipulate concepts, to think critically, solving problems and learn collaboratively; Use information technology (e-mail and the Internet) to promote new learning approaches to promote collaborate learning (e.g. through networking), to construct and synthesize new information (e.g. through PowerPoint presentations), solve problems (e.g. through data processing programs that can find relationships, sort data etc.) and provide a means for dialogue, discussion, and debate interactivity that leads to social construction; Introduce Question & Answer activity to help students learning by reflecting on their previous experience and new context to find or 'construct' a new idea that solves different real life problems; Focus on teaching thinking skills at the higher end of the Bloom taxonomy, including analysis, synthesis, and evaluation, stimulates students to exchange ideas through discussions, encourage them to synthesize unique ideas; Encourage students to prepare PowerPoint Presentations in their groups as a useful social channel for students to work together in teams to produce a creative product to share with the class.

Main Strategy 3 Sub-strategy 3.3	3. Academic Management Reform for quality citizenship To integrate quality citizenship into school curriculum and textbooks for quality citizenship
Procedures:	Increase support of political and government policy and enhance economy, and technology to develop an education management reform sub-strategy to integrate Good Citizenship into school curriculum and textbooks to promote quality national and global citizenship.
	1. Ministry of Education, Youth and Sport Implements the National Curriculum Framework and develops a detailed curriculum; Develops detailed curriculum and standards of good citizenship; Integrates Good Citizenship Education, consisting of Good Cambodian Citizenship and Good Global Citizenship, into school curriculum and textbooks; Develops textbooks aligned to the new detailed curriculum; Provides sufficient core textbooks to schools; Develops career counselling at secondary and technical education schools.
	2. The Department of Teacher Training (TTD) Creates course syllabus; Provides training for teacher trainers focusing on global issues; Teacher Education Colleges (TECs), Regional Teacher Training Centers (RTTCs), and Provincial Teacher Training Centers (PTTCs) train teacher trainees on the new curriculum and use of core textbooks, including Good Cambodian Citizenship and Good Global Citizenship
	3. Schools

	3.1. Create a special room using digital tools, such as LCD projectors, computers and other teaching materials for integrating quality citizenship into the classrooms; 3.2. Upgrade library to the standards of the 21st century for students to work together on analytical skills.
	4. Teachers Improve teaching methods, including role play, to ensure that students gain knowledge on global issues Use ICT and digital tools to implement quality citizenship curriculum in the classrooms; Introduce project works and brainstorming sessions to implement quality citizenship curriculum; Encourage students to update learning materials on quality citizenship, requiring them to make presentations to the class using useful corlorful pictures, charts and diagrams; Introduce writing competition on quality citizenship issues.

Main Strategy 4 Sub-strategy 4.1	4. HR Management Reform for Quality Citizenship for quality citizenship To provide INSET training, focusing on teaching methods and mentoring programs for quality citizenship
Procedures:	Increase support of political and government policy and technology, enhance economy and socio-cultural aspects to an develop education management reform sub-strategy to provide INSET development to promote quality national and global citizenship.
	1. Ministry of Education, Youth and Sport (MoEYS) Adopts Policy on Continuous Professional Development (CPD), focusing on teaching methods and mentoring programs; Provides regular professional development framework for education staff. Provides regular in-service training for education staff. Ensures the link between Regular Professional Development and Teacher Career Pathway. Conducts regular monitoring and evaluation system on regular professional development of education staff. Adopts Policy on Lifelong Learning for teachers and school principals; Implement the Teacher Policy Action Plan (TPAP), which is the Roadmap for Teacher Reform by: (i) improving the selection of teachers and school principals; (ii) linking promotion to continuous professional development (systematic INSET/ONSET) and performance assessment; (iii) creating career development by establishing a Teacher Career Pathway (TCP), based on a clear career structure; (iv) strengthening teacher monitoring and evaluation systems;
	2. The Teacher Training Department (TTD) Validates the content of in-service training documents focusing on teaching methods and training programs. Organizes in-place management system for all kinds of related trainings. Supports new teachers to attend the practicing mechanism in place regularly. Increases competencies of teacher trainers, core trainers, and trainers at school. Organizes, strengthens and practices new mechanism for in-place education staff support to meet the needs and enhance professional skills. Organizes a sharing event of the best practices and innovation by well-performed education staff. Increases competencies of core officers of human resource entities at national and sub national level. Develops teachers' profession through elective option, in-place credit system, distance learning, step-by-step short term training courses, long term training courses, scholarship, training with letter of confirmation, and accelerated training program.

	Increases qualifications of education staff and education management committee at the middle level to at least master's degree. Develops credit system for the training courses to motivate education staff to follow Teacher Career Pathway.
	3. Schools Prepare INSET/ONSET Budget and incorporates it in the School Budget;
	4. Teachers Get trained on establish Professional Learning Communities (PLCs) to share teaching experiences among their peers

Main Strategy 4	4. HR Management Reform for Quality Citizenship for quality citizenship To increasing teacher's PRESET qualifications for quality citizenship for quality citizenship
Sub-strategy 4.2	Increase support of political and government policy and socio-cultural and enhance economy and technology to develop an education management reform sub-strategy to increasing PRESET teacher qualifications to promote quality national and global citizenship.
Procedures:	1. Ministry of Education, Youth and Sport (MoEYS) Reviews the PRESET teacher curriculum for primary and lower secondary school teachers at BA level; Reviews the policies and criteria for recruiting teachers; Rationalizes the needs and the supply of teachers at national and sub-national levels Improves procedures for teacher deployment and redeployment; Improves the living standards of education staff by increasing remuneration and allowances. Prepares incentives for teachers at disadvantaged areas; Establishes a Teacher council for the accreditation of Teacher Education Provider (TEP) and develops a master plan on development of Teacher Education College.
	2. Teacher Training Department (TTD) Submits budget requests to MEF to enable the existing teachers to upgrade their qualifications from 12+2 to 12+4; Develops a Medium-term Plan for strengthening teacher educator and a plan on the implementation of B.Ed Fast Track model to address the shortages of teachers; Increases professional qualifications and experiences of lecturers and trainers at Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC) to meet the Teacher Education Provider Standard (TEPS) requirements;
	3. Teacher Education College (TEC) Teacher Education College and Faculty of Education at Royal University of Phnom Penh (RUPP) revise teacher training curriculum (12+4), syllabus and materials; Upgrades qualification of teacher trainers Provides support and share resources to other RTTCs
	4. National Institute of Education (NIE) Revises upper secondary teacher training module (MA+1) Upgrades qualification of teacher trainers
	5. The Royal University of Phnom Penh (RUPP) RUPP to be accredited to conduct fast-track BEd training programs.

Main Strategy 4 Sub-strategy 4.3	4. HR Management Reform for quality citizenship To implement teacher performance assessment for quality citizenship
Procedures:	Increase support of political and government policy and technology and enhance the economy and socio-culture to develop an education management reform

	strategy to implement teacher performance assessment to promote quality national and global citizenship, by focusing on on knowledge, hard, soft and life skills, respect of law and order, community and sustainable development, participation in political activities, as well as recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.
	1. Ministry of Education, Youth and Sport Prepares and adopts Manual on Teacher Performance Assessment and Teacher Career Pathway (TCP) Improves staff performance appraisal procedures, with clear criteria for promotion/nomination, development a credit system, and assures performance of education staff evaluation committees through a policy on Cambodia Teacher Career Pathway, introduction of Career passport and Credit system Operationalizes a Teacher Support and Assessment office within TTD
	2. The Department of Personnel (DoPer) Carries out pilot implementation within three department (Department of Personnel, Department of Planning and Department of Finance) and roll out the implementation after initial evaluation Pilots implementation with selected PEOs.
	3. Schools School directors to implement teacher performance assessment by focusing on student learning outcomes and evaluation by the Student Council Schools implement the principles of education staff performance appraisal system; Schools develop education management staff capacity development plan and system Schools motivate teacher through performance management; School principals provide all required school inputs;
	4. Teachers Submits annual request to school directors for training needs;

4.4.2 The individual experts and stakeholders examine the suitability and feasibility of the first draft of the education management reform strategies for enhancing quality citizenship in Cambodia

The researcher distributed the draft strategies, sub-strategies and procedures of education management reform to 51 experts and stakeholders in education management so that they can provide individual views on the suitability and feasibility of the strategies, sub-strategies and procedures. The researcher convened a meeting on 19th April 2018 at the meeting room A of the Ministry of Education, Youth and Sports to discuss the outcomes. The results of the examination of suitability and feasibility of the first draft of education management reform strategies for ensuring quality citizenship in Cambodia by the individual specialists and stakeholders are described below.

Table 44 The status of the specialists and stakeholders who examine the suitability and validity of the first draft of education management reform strategies for the quality citizenship in Cambodia

Item	Status of specialists and stakeholders	Number	Percentage
1	Education specialists	4	8
2	Education administration specialists from MoEYS Departments	15	29
3	Education Development Partners (Cambodian and foreigners)	6	12
4	School Administrators	12	24
5	School Teachers	14	27
	Total	51	100

Based on Table 44, there are fifty one education specialists and stakeholders who reviewed the suitability and feasibility of the first draft of the education management reform strategies for enhancing the quality citizenship in Cambodia. They consist of the following: 4 of them are education experts, 15 of them are Directors General, Deputies Director General, Directors or Deputies Directors of technical departments of the MoEYS, 6 of them are representatives of the Development Partners, 12 of them are school administrators and 14 of them are high school teachers.

Table 45 The results of the examination of the suitability and feasibility of the first draft of the main strategies of education management reform strategies for enhancing the quality citizenship in Cambodia by the individual specialists and stakeholders.

Main Strategy	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
1. Education financial management reform strategy for quality citizenship.	51	100.00	51	100.00	0	0.00
2. Administrative and General Management Reform strategy for quality citizenship	51	100.00	51	100.00	0	0.00
3. Academic Management Reform for quality citizenship	51	100.00	51	100.00	0	0.00
4. Human Resources Management Reform Strategy for quality citizenship	51	100.00	51	100.00	0	0.00
Total	-	100.00	-	100.00	-	0.00

Based on Table 45, the main strategies of education management reform strategies for enhancing the quality citizenship in Cambodia have suitability and feasibility at 100%.

Table 46 The results of the examination of the suitability and feasibility of the first draft of Sub-strategies of education management reform strategies for enhancing the quality citizenship in Cambodia by individual experts and stakeholders.

Main Strategy and sub-strategy	Suitability		Feasibility		Should be modified	
	Number	%	Number	%	Number	%
1. The Education financial management reform strategy for quality citizenship						
1.1 Increase support of political and government policy and technology and enhance economy and socio-culture to develop a sub-strategy to increase financial autonomy and accountability of schools to promote quality national and global citizenship, especially by focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.	51	100.00	51	100.00	0	0.00
1.2 Increase support of political and government policy and enhance economy and technology to develop a sub-strategy to conduct education budget audit to promote quality national and global citizenship, especially by focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.	51	100.00	51	100.00	0	0.00
1.3 Increase support of the economy and technology and enhance the socio-culture to develop a sub-strategy of linking budget to education politicies to promote both quality national and global citizenship.	51	100.00	50	98.00	1	2.00
2. The administrative and General Management Reform strategy for quality citizenship						
2.1 Increase support of political and government policy and enhance economy, socio-culture and technology to become an opportunity that contributes to the strength of developing a sub-strategy of ensuring community involvement in the school management to promote quality national citizenhip, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.	51	100.00	51	100.00	0	0.00
2.2 Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to becomes an opportunity that contributes to the strength of implementing School-Based Management to promote quality national and global citizenship.	51	100.00	51	100.00	0	0.00

Main Strategy and sub-strategy	Suitability		Feasibility		Should be modified	
	Number	%	Number	%	Number	%
2.3 Enhance politics and the economy and increase support of socio-culture and technology to develop a sub-strategy to implement education policy and ESP to enhance quality national and global citizenship.	51	100.00	51	100.00	0	0.00
3. The academic Management Reform for quality citizenship						
3.1 Increase support of political and government policy and technology and enhance economy and socio-culture to develop an education management reform sub-strategy to conduct regular assessment of students to promote quality national and global citizen, especially by focusing on on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.	51	100.00	51	100.00	0	0.00
3.2 Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy to improve teaching methods to promote quality national and global citizenship.	51	100.00	51	100.00	0	0.00
3.3 Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy to integrate Good Citizenship into school curriculum and textbooks to promote quality national and global citizenship.	51	100.00	51	100.00	0	0.00
4. The Human Resources Management Reform Strategy for quality citizenship						
4.1 Increase support of political and government policy and technology and enhance economy and socio-cultural aspects to develop an education management reform sub-strategy to provide INSET development to promote quality national and global citizenship.	51	100.00	51	100.00	0	0.00
4.2 Increase support of political and government policy and socio-cultural and enhance economy and technology to develop an education management reform sub-strategy to increasing PRESET teacher qualifications to promote quality national and global citizenship.	51	100.00	51	100.00	0	0.00
4.3 Increase support of political and government policy and technology and enhance the economy and socio-culture to develop an education management reform sub-strategy to implement teacher performance assessment to promote quality national and global citizenship, by	51	100.00	50	98.00	1	2.00

Main Strategy and sub-strategy	Suitability		Feasibility		Should be modified	
	Number	%	Number	%	Number	%
focusing on on knowledge, hard, soft and life skills, respect of law and order, community and sustainable development, participation in political activities, as well as recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.						
Total Mean	-	100.00	-		-	

Based on Table 46, the sub-strategies of education management reform strategies for enhancing the quality citizenship in Cambodia have suitability at 100% and feasibility at 99%. Two specialists considered that item 1.3 and 4.3 should be modified.

Table 47 The results of examination of the suitability and feasibility of the first draft of procedures of education management reform strategies for enhancing the quality citizenship in Cambodia by the individual specialists and stakeholders.

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
1. Education financial management reform strategy for quality citizenship						
1.1 Increasing financial autonomy and accountability of schools for quality citizenship						
Increase support of political and government policy and technology and enhance economy and socio-culture to develop sub-strategy to increase financial autonomy and accountability of schools to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.						
1. Ministry of Education, Youth and Sport Prepares guidelines on financial autonomy and accountability of schools Adopt Manual Related to School Improvement Fund Financial Management Strengthen and expand the implementation of Program Budgeting and budget supervision Strengthen the implementation of new accounting, recording and reporting system Strengthen the implementation of mechanism and tools for enhancing the accountability and responsibility Improve budget transparency	50	98.04	51	100.00	1	1.96

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
2. The Department of Finance (DOF) to provide training for school directors on financial management system for the implementation of School Improvement Funds for public educational institutions by increasing: (i) autonomy in the management of public institutions; (ii) accountability on budget management; and (iii) responsiveness to student achievement	50	98.04	50	98.04	2	3.92
3. The Provincial Office of Education, Youth and Sport (POE) approves The request for disbursement of School improvement funds submitted by the District Office of Education, Youth and Sport (DOE). The POE reviews and approves the school's financial statements, consolidated and submitted by the DOE.	51	100.00	51	100.00	0	0.00
4. The District Office of Education, Youth and Sport (DOE) approve the School Development Strategic Plan and School Annual Operational Plan.	51	100.00	50	98.04	1	1.96
5. School board/ School Management Committee School board/School Management Committee (SMC) will be established to adopt regulations related to role and responsibilities of school managers, parents and community members on school management The SMC approves School Development Strategic Plan, School Operational Plan and submit request for disbursement of Annual School Improvement Fund and is responsible for overseeing the implementation of the School Improvement Fund, executed by schools.	50	98.04	50	98.04	2	3.92

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Schools prepare policy on financial management, personnel management, teacher evaluation, hiring and dismissal, M&E. Introduce the Result-based School Management System in accordance with good governance principles, ensuring efficiency and effectiveness, and achieving progress as proof of student achievement School to provide key roles to teachers, community, authorities, parents and students in participating in the planning and implementing process of school Development Plan and Annual Operational Plan						
1.2. Conducting education budget audit for quality citizenship						
Increase support of political and government policy and enhance economy and technology to develop strategy to conduct education budget audit to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.						
1. Ministry of Education, Youth and Sport Adopts an Action Plan on School Financial Audit; Prepares and adopts a Master Plan on Internal Audit; Strengthens planning and monitoring the use of the education budget via the expansion of a computerized financial management information system (FMIS) at all levels; Develops the capacity of inspectors and school principals for the internal and external inspection systems;	51	100.00	49	98.04	2	3.92
2. The Department of Internal Audit (DIA) Conducts regular audit of schools to ensure that budgetary resources are used for improving students' learning outcomes Adopts standard report on income and expenditure as	51	100.00	49	96.08	2	3.92

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
well as school's financial statements and school annual budget implementation. Ensures that funds are used to finance the following core activities and sub-activities: (1) Support to process: Administrative process, Capacity strengthening, Equipment and furniture, Repair and maintenance, Water, electricity, telephone services and Internet; and (2) Improve the quality of education: Equitable access to education; Teaching and learning materials and producing didactic materials; Lab materials and experiments; Materials of library, books and reading materials; Support to vulnerable students, remedial class and prevent drop out; Improve the environment and leisure space; Life skills, agricultural, workshops and investment; Health, hygiene, physical education, art and rewards; Child and youth work; Construction.						
3. The Provincial Office of Education, Youth and Sport (POE) The POE develops a monitoring plan to monitor the progress of educational services at each school and ensure effectiveness The POE provides training courses to build the capacity of the District Training and Monitoring Teams (DTMT) to conduct internal audit;	48	94.12	51	100.00	3	5.88
4. The District Office of Education, Youth and Sport (DOE) prepares a monitoring plan to monitor the progress of educational services in each school and ensure the efficiency.	49	96.08	48	94.12	3	5.88
5. Schools	50	98.04	49	96.08	3	5.88

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
The school principals use School Operational Budget (SOB) for teachers' continuous professional development and for improving teaching methods, designed to promote the respect for diversity and human values Strengthen financial management skills, develop and maintain a clear financial management system Promote accountability for management and monitoring of resource utilization, transparency, security, reliability and transparency. Creates a Transparency letterbox to get information or other complaints from stakeholders Strengthens internal inspection system, based on self-evaluation of schools and regular supervision School principal improves school performance with external findings and addresses audit findings;						
6. Teachers provide feedbacks to school directors on school management and ensure that the School Improvement Fund is used for teaching and learning process to improve learning outcomes.	51	100.00	51	100.00	0	0.00
1.3 Linking budget to education policies for quality citizenship						
Increase support of the economy and technology and enhance the socio-culture to develop sub-strategy to of linking budget to education politicies to promote both quality national and global citizenship.						
1. Ministry of Education, Youth and Sport Adopts policy and guidelines on financial autonomy and accountability of schools MEF should introduce financial allocations linking budget to education policies and performance Introduce Result-Based Management by linking	51	100.00	51	100.00	0	0.00

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
inputs to output and outcome indicators, as stipulated in the ESP and education policies and ensure sound Monitoring and Evaluation (M&E) Allocate more resources to schools						
2. Ministry of Economy and Finance 2.1. Uses Education Strategic Plan (ESP) and Annual Operational Plan (AOP) to allocate budgetary resources by sub-sector.	51	100.00	49	96.08	2	3.92
3. The Provincial Department of Education (POE) consolidates School Development Strategic Plan and ensure that financial resources are made available for the achievement of core indicators.	49	96.08	50	98.04	3	5.88
4. Schools/Teachers The school principals and teachers should strive to educate the students to respect school regulations, timetables and teach the importance of the respect of law and social order as personal management techniques. School to introduce budget planning by determining the amount of funds needed to carry out School Development Plan according to specific timetable. The School Management Committee to prepare reports on School Development Plan implementation by monitoring and evaluating the actual implementation of the activities. School to use the School Improvement Fund for activities, such as: Increasing the use of materials and a better learning environment through material and	50	98.04	49	96.08	2	3.92

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
equipment and the support of teaching and learning materials and teaching activities. Strengthening the ability of teachers. Assisting vulnerable children, slow-paced students and students subject to drop out Increase enrolment rates, graduation rates, transition rate and completion rate in every level Provide health care services to students at all levels (health care, food safety and other risks).						
2. Administrative and general management reform strategy for quality citizenship						
2.1 Ensuring community involvement in school management for quality citizenship						
Increase support of political and government policy and enhance economy, socio-culture and technology to become an opportunity that contributes to the strength of ensuring community involvement in the school management to promote quality national citizenhip, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.						
1. Ministry of Education, Youth and Sport Adopts an Operational Manual on SBM that encourage parents, community members and local authority to establish School Management Committee Organizes workshops and training on SBM for the Provincial Office of Education (POE), Teacher Education College (TEC), Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC)	51	100.00	50	98.04	1	1.96
2. The Provincial Office of Education (POE) The POE provides training to the District Office of Education (DOE) on SBM, focusing on the modalities and responsibilities of parents, local authority and community members to participate in school management	51	100.00	50	98.04	1	1.96
3. Schools	50	98.04	51	100.00	1	1.96

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
School principal initiates the establishment of School Management Committee and encourage community to involve in school management; School principal creates a climate in the school system which fosters openness, trust and collaboration; School principal organizes regular meeting with parents and conducts home visit.						
4. The school management committee (SMC) The School Management Committee prepares and adopts School Development Plan and Classroom Development Plan with the participation of all key stakeholders, including Student Council; The SMC reviews school performance and transparency;	51	100.00	50	98.04	1	1.96
5. Teachers The teacher organize regular meeting with parents and local communities to seek their support	50	98.04	46	90.20	5	9.80
6. Students Student Council holds regular meeting with the students and present their views to the School Management Committee	51	100.00	50	98.04	1	1.96
2.2 Implementing School-Based Management for quality citizenship						
Increase support of political and government policy and enhance economy, socio-culture and technology to develop strategy to avoid threats and consolidate the strength of implementing School-Based Management to promote quality national citizenship.						
1. Ministry of Education, Youth and Sport Adopts Policy, Framework and Guidelines on School-Based Management (SBM) Integrates SBM into the School Director Training and Teacher Training curriculum Establish a financing formula for SBM schools Establish a conceptual framework on Accountability in Education	51	100.00	50	98.04	2	3.92

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Provides schools with basic needs such as leadership and management competencies, teaching competencies, proper teaching and learning materials, and proper school infrastructure and environment Develop an M&E mechanism for SBM						
2. Directorate General of Education (DGE) Support and expand the implementation of New Generation School Establish and enlarge the budget package for school director training on SBM Establish school mentoring program on SBM	51	100.00	51	100.00	0	0.00
3. Teacher Training Department (TTD) The Teacher Training Department provides training to the Provincial Office of Education (POE) and school directors on SBM The Provincial Office of Education (POE) provides training to the District Office of Education (DOE) on SBM	49	96.08	50	98.04	3	5.88
4. Schools School principal develops a rolling three-year and annual School Development Plan, by identifying school input, output and outcome indicators, as well as financing sources, with the participation of all key stakeholders; School principal facilitates, coordinates the development of and submit the 3 Years School Outcome Indicators and Targets and annual school improvement plan and budget. School principals submits the results of the evaluation of school performance against school effectiveness standards to SMC	49	96.08	49	96.08	3	5.88

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
School principal manages, facilitates and coordinates all school fund raising activities. School gathers real data and information gained from student assessments, assessment of teachers' competencies; school performance assessment School creates a culture of information sharing by identifying problems jointly with all key stakeholders to promote trust in schools by communities, trust among school staff, and especially trust of parents in teachers. School prepares planning, budgeting, reporting and managing staff performance; School implements curriculum as guided and extra curricula; School principals conducts staff performance management system and propose to reward best performing staff, as well as propose administrative measures for non-performing staff;						
5. School Management Committee (SMC) School Management Committee provides support to teaching and learning, as well as resource mobilization and prepare school evaluation reports; SMC Approves 3-Years School Outcome Indicators and Targets, annual school improvement plan and budget, provides clearance on the evaluation of school performance against school effectiveness standards; and supports and involves in school fund raising; SMC approves the rewards for best staff, proposes administrative measures for non performing staff to sub-	51	100.00	51	100.00	0	0.00

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
national/national level, approves the reward for school principal best performance; SMC implements M&E system and reports progress;						
2.3 Implementing education policies and Education Strategic Plan for quality citizenship						
Enhance political and government policy and promote economy aspects to implementing education policy and ESP to enhance quality national and global citizenship						
1. Ministry of Education, Youth and Sport Update education policies to be consistent with SDG-4; Prepares Education Strategic Plan (ESP) for 2019-2023 and Cambodia SDG-4 Roadmap Make efforts to implement two main policies: (1): Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; and (2) Ensuring effective leadership and management of education staff at all levels; Coordinates the implementation of core breakthrough indicators and indicators by sub-sectors; Provides periodical and regular monitoring and review of ESP, focusing on education performance, implementation of strategies, programs, sub-programs and other relevant factors including inputs for education sector. Strengthens M&E system to ensure consistency among priorities and promote implementation of key reform programs. Ensures that education policies and ESP implementation produce highly-qualified human resources to meet the needs of the Industrial Development Policy (IDP), by strengthening education quality at all levels, and improves the	51	100.00	50	98.04	1	1.96

247

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
implementation of curriculum by including soft skills including social communication skills, problem solving skills, respect for disciplines at work and other technical skills which are important for developing industrial foundation. Implementation 5 pillars of Education Management Reforms including Implement teacher policy action plan (TPAP) and personnel development action plan, with clear budget. School inspection Assessment Curriculum Review, Textbooks and Improving School Infrastructure Higher Education Reform Build capacity for leadership, management, focus on public educational institutions and the participation of community authorities, parents, guardian's student and all stakeholders.						
2. The Provincial Office of Education prepares provincial level ESP	51	100.00	51	100.00	0	0.00
3. The schools: The school principals encourage community to involve in school management and ensure monitoring and evaluation of ESP and education policies in order to: Expand education services to vulnerable children group Improve the quality of educational services Increase enrolment and graduation rates in all study levels Reduce the dropout rate and repetition rate especially in the secondary schools	51	100.00	50	98.04	1	1.96
4. Teachers: to improve teaching methods by	51	100.00	50	98.04	1	1.96

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
combining classroom teaching with field visits so that the students familiarize themselves with the surrounding environment and understand the goals of sustainable development						
3. Academic Management Reform for quality citizenship						
3.1 Conducting regular assessment of students for quality citizenship						
Increase support of political and government policy and technology and enhance economy and socio-culture to develop education management reform strategies in conducting regular assessment of students to promote quality national and global citizen, especially by focusing on on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.						
1. Ministry of Education, Youth and Sport (MoEYS) Creates a national assessment framework, consisting of national examination systems at grade 9 and grade 12, assessments at grades 3, 6 and 8, Early Grade Reading Assessment (EGRA) and Early Grade Mathematic Assessment (EGMA) at grades 1, 2 and 3, classroom assessments and school-based assessments. Strengthens assessments at grades 3, 6 and 8, on Khmer, Math and Physics; Organizes participation in regional and international tests; Improves guidelines, marking standards and monitoring system of national examinations; Decentralizes responsibility regarding grade 9 examination to POE and Municipal Office of Education;	51	100.00	50	98.04	1	1.96
2. The Department of Education Quality Assurance (EQAD) Develops the capacity of staff to conduct assessments and analyse results; Develops a system for classroom test	51	100.00	51	100.00	0	0.00
3. The Department of Primary Education (DPE)	49	96.08	50	98.04	1	1.96

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
The DPE develops the capacity of staff to conduct EGRA and EGMA and analyse results;						
4. Schools School principals facilitate and coordinate the evaluation of school performance against school effectiveness standards; School principals compile data and information for, produce and submit the quarterly progress report on student assessment; School principals compile data and information for, produce and submit the annual progress report on achievement of school outcomes indicators and targets; Incorporate the result of student learning into the school report card	51	100.00	50	98.04	1	1.96
5. The school management committee (SMC) School Management Committee approves the results from school performance evaluation, and endorses the annual progress report on achievement of school outcomes indicators and targets related to student's learning outcomes;	51	100.00	50	98.04	1	1.96
6. Teachers Teachers develop tests on students' knowledge on political parties and political system Teacher provides continuous timely support to slow learners and develops teaching pattern and assessment system. Teacher encourages excellence among students;	51	100.00	49	96.08	2	3.92
7. Students Students should display the following abilities: Read effectively and communicate clearly in written and oral form;	51	100.00	51	100.00	0	0.00

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Use numbers and do math and science work book; Think independently, critically, creatively and solve problems; Accept ownership for civic and personnel responsibilities; Respect others and act in an honourable and ethical manner; Work effectively both independently and cooperatively.						
3.2 Improving teaching methods for quality citizenship						
Increase support of political and government policy and socio-culture and enhance economy and technology to develop education management reform strategies in improving teaching methods to promote quality national and global citizenship.						
1. Ministry of Education, Youth and Sport Adopts Guidelines on Teaching Methods, aimed at producing a workforce that can think critically, solve problems, and work collaboratively; Adopts Guidelines on Classroom Management; Establish teacher mentoring program to support new teachers; Introduce project-based learning, student-centered, inquiry-based learning methodologies; Implement Reading Standards and Methods for Grades 1, 2 and 3 and Reading Methods in library; Integrates ICT into Teaching Methods.	51	100.00	51	100.00	0	0.00
2. The Department of Teacher Training (TTD) The TTD provides on-service training based on teachers' competency gaps in teaching methods; TTD integrates new teaching methods, such as active learning, constructive learning, problem-based learning, discovery learning, and inquiry-based learning approaches, as well as new	48	94.12	48	94.12	4	7.84

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
techniques of classroom management in teacher training curriculum; Prepares implementation mechanisms and support regular professional development with the focus on the prepared and in place in-service trainings. Evaluate and properly manage all professional development related activities in order to have formal recognitions or giving equivalent certificates (high school diploma, bachelors, or masters…) Set specific time for in-service trainings. Provide in-service trainings every 5 years. Develop in-service credit system in all aspects. Set up competence development system for education staff in all means (in-place training, accelerated training programs, or short training courses for those holding degree). Support new teachers to attend the practicing mechanism in place regularly						
3. Schools Provide materials for teacher to produce teaching aid; Provide training on effective lesson management, classroom management and on how to maintain focus in the classroom; provides technology so that the teachers can use technology in implementing new teaching methods.	51	100.00	51	100.00	0	0.00
4. Teachers The teachers get trained and updated on teaching methodologies;	51	100.00	51	100.00	0	0.00

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Produce teaching aid and applied appropriate teaching methodologies; Change the way of teaching away from 'passive learning' models in which students are thought of as 'receptacles' of knowledge to a new approach or active learning, in which students are active 'constructors' of new knowledge; Create Professional Learning Communities (PLCs) to share best practices in teaching; Apply classroom management techniques to maintain high levels of "withitness" to ensure constant awareness of all students and situations in the classroom; Make sure that students are able to manipulate concepts, to think critically, solving problems and learn collaboratively; Use information technology (e-mail and the Internet) to promote new learning approaches to promote collaborate learning (e.g. through networking), to construct and synthesize new information (e.g. through PowerPoint presentations), solve problems (e.g. through data processing programs that can find relationships, sort data etc.) and provide a means for dialogue, discussion, and debate interactivity that leads to social construction; Introduce Question & Answer activity to help students learning by reflecting on their previous experience and new context to find or 'construct' a new idea that solves different real life problems;						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Focus on teaching thinking skills at the higher end of the Bloom taxonomy, including analysis, synthesis, and evaluation, stimulates students to exchange ideas through discussions, encourage them to synthesize unique ideas; Encourage students to prepare PowerPoint Presentations in their groups as a useful social channel for students to work together in teams to produce a creative product to share with the class.						
3.3 Integrating Good Citizenship into school curriculum and textbooks for quality citizenship						
Increase support of political and government policy and socio-culture and enhance economy, and technology to develop education management reform strategies to integrating Good Citizenship into school curriculum and textbooks to promote quality national citizen, focusing on how to make the world a better place and responsibility or action.						
1. Ministry of Education, Youth and Sport Implement the National Curriculum Framework and develops a detailed curriculum; Develop detailed curriculum and standards of good citizenship; Integrates Good Citizenship Education, consisting of Good Cambodian Citizenship and Good Global Citizenship, into school curriculum and textbooks; Develops textbooks aligned to the new detailed curriculum; Provide sufficient core textbooks to schools; Develops career counselling at secondary and technical education schools.	51	100.00	51	100.00	0	0.00
2. The Department of Teacher Training (TTD) The Department of Teacher Training creates course syllabus; TTD provides training for teacher trainers focusing on global issues;	49	96.08	49	96.08	2	3.92

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Teacher Education Colleges (TECs), Regional Teacher Training Centers (RTTCs), and Provincial Teacher Training Centers (PTTCs) train teacher trainees on the new curriculum and use of core textbooks, including Good Cambodian Citizenship and Good Global Citizenship						
3. Schools Create a special room using digital tools, such as LCD projectors, computers and other teaching materials for integrating quality citizenship into the classrooms; Upgrade library to the standards of the 21st century for students to work together on analytical skills.	50	98.04	50	98.04	2	3.92
4. Teachers Teachers improve teaching methods, including role play, to ensure that students gain knowledge on global issues Use ICT and digital tools to implement quality citizenship curriculum in the classrooms; Introduce project works and brainstorming sessions to implement quality citizenship curriculum; Encourage students to update learning materials on quality citizenship, requiring them to make presentations to the class using useful corlorful pictures, charts and diagrams; Introduce writing competition on quality citizenship issues.	51	100.00	51	100.00	0	0.00
4. Human Resources Management Reform for quality citizenship						
4.1 Providing INSET training for quality citizenship						
Increase support of political and government policy and technology, enhance economy and socio-cultural aspects to develop education management reform strategies to provide INSET development to promote quality national and global citizenship, especially by focusing on recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
1. Ministry of Education, Youth and Sport (MoEYS) Adopts Policy on Continuous Professional Development (CPD), focusing on teaching methods and mentoring programs; Provides regular professional development framework for education staff. Provides regular in-service training for education staff. Ensures the link between Regular Professional Development and Teacher Career Pathway. Conducts regular monitoring and evaluation system on regular professional development of education staff. Adopts Policy on Lifelong Learning for teachers and school principals; Implement the Teacher Policy Action Plan (TPAP), which is the Roadmap for Teacher Reform by: (i) improving the selection of teachers and school principals; (ii) linking promotion to continuous professional development (systematic INSET/ONSET) and performance assessment; (iii) creating career development by establishing a Teacher Career Pathway (TCP), based on a clear career structure; (iv) strengthening teacher monitoring and evaluation systems;	51	100.00	51	100.00	0	0.00
2. The Teacher Training Department (TTD) Validate the content of in-service training documents focusing on teaching methods and training programs. Organize in-place management system for all kinds of related trainings.	49	96.08	49	96.08	3	5.88

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Support new teachers to attend the practicing mechanism in place regularly. Increase competencies of teacher trainers, core trainers, and trainers at school. Organize, strengthen and practice new mechanism for in-place education staff support to meet the needs and enhance professional skills. Organize a sharing event of the best practices and innovation by well-performed education staff. Increase competencies of core officers of human resource entities at national and sub national level. Develop teachers' profession through elective option, in-place credit system, distance learning, step-by-step short term training courses, long term training courses, scholarship, training with letter of confirmation, and accelerated training program. Increase qualifications of education staff and education management committee at the middle level to at least master's degree. Develop credit system for the training courses to motivate education staff to follow Teacher Career Pathway.						
3. Schools The school prepares INSET/ONSET Budget and incorporates it in the School Budget;	51	100.00	51	100.00	0	0.00
4. Teachers The teachers get trained on establish Professional Learning Communities (PLCs) to share teaching	51	100.00	50	98.04	1	1.96

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
experiences among their peers						
4.2 Increasing teacher's PRESET qualifications for quality citizenship						
Increase support of political and government policy and socio-cultural and enhance economy and technology to develop education management reform strategies to increasing PRESET teacher qualifications to promote quality national and global citizenship, especially by focusing on knowledge, hard, soft and life skills.						
1. Ministry of Education, Youth and Sport (MoEYS) MoEYS reviews the PRESET teacher curriculum for primary and lower secondary school teachers at BA level; Reviews the policies and criteria for recruiting teachers; Rationalizes the needs and the supply of teachers at national and sub-national levels Improve procedures for teacher deployment and redeployment; Improve the living standards of education staff by increasing remuneration and allowances. Prepares incentives for teachers at disadvantaged areas; Establish a Teacher council for the accreditation of Teacher Education Provider (TEP) and develops a master plan on development of Teacher Education College.	50	98.04	50	98.04	2	3.92
2. Teacher Training Department (TTD) The Department of Teacher Training submits budget requests to MEF to enable the existing teachers to upgrade their qualifications from 12+2 to 12+4; TTD develops a Medium-term Plan for strengthening teacher educator and a plan on the implementation of B.Ed Fast Track model to address the shortages of teachers; Increase professional qualifications and	50	98.04	49	96.08	2	3.92

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
experiences of lecturers and trainers at Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC) to meet the Teacher Education Provider Standard (TEPS) requirements;						
3. Teacher Education College (TEC) Teacher Education College and Faculty of Education at Royal University of Phnom Penh (RUPP) revise teacher training curriculum (12+4), syllabus and materials; Upgrade qualification of teacher trainers Provide support and share resources to other RTTCs	51	100.00	51	100.00	0	0.00
4. National Institute of Education (NIE) Revise upper secondary teacher training module (MA+1) Upgrade qualification of teacher trainers	50	98.04	50	98.04	2	3.92
5. The Royal University of Phnom Penh (RUPP) RUPP to be accredited to conduct fast-track BEd training programs.	50	98.04	49	96.08	3	5.88
4.3 Implementing teacher performance assessment for quality citizenship						
Increase support of political and government policy and technology and enhance the economy and socio-culture to develop education management reform strategies in implementing teacher performance assessment to promote quality national and global citizenship, by focusing on on knowledge, hard, soft and life skills, respect of law and order, community and sustainable development, participation in political activities, as well as recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.						
1. Ministry of Education, Youth and Sport Prepares and adopts Manual on Teacher Performance Assessment and Teacher Career Pathway (TCP) Improves staff performance appraisal procedures, with clear criteria for promotion/nomination, development a credit system, and assuring performance of education staff evaluation committees through a policy on Cambodia Teacher Career	51	100.00	51	100.00	0	0.00

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Pathway, introduction of Career passport and Credit system Operationalize a Teacher Support and Assessment office within TTD						
2. The Department of Personnel (DoPer) The Department of Personnel carries out pilot implementation within three department (Department of Personnel, Department of Planning and Department of Finance) and roll out the implementation after initial evaluation Pilot implementation with selected PEOs.	51	100.00	51	100.00	0	0.00
3. Schools School directors to implement teacher performance assessment by focusing on student learning outcomes and evaluation by the Student Council School implements the principles of education staff performance appraisal system; School develops education management staff capacity development plan and system School motivates teacher through performance management; School principal provides all required school inputs;	51	100.00	50	98.04	1	1.96
4. Teachers The teachers submits annual request to school directors for training needs;	50	98.04	50	98.04	2	3.92
Total Mean						

Based on Table 47, 51 education specialists and stakeholders reviewed the procedures of education management reform strategies for enhancing the quality citizenship in Cambodia. The procedures that should be modified the most are the item number 2.1 (5), 3.2 (2), 1.2 (3), 1.2 (4), 1.2 (5), 1.3 (3), 2.2 (3), 2.2 (4), 4.1 (2), 4.2 (5), 4.3 (4), then the item number 1.1 (1), 1.1 (2), 1.1 (4), 1.1 (5), 1.2 (1), 1.2 (2), 1.3 (2),

1.3 (4), 2.1 (1), 2.1 (2), 2.1 (3), 2.1 (4), 2.1 (6), 2.2 (1), 2.3 (1), 2.3 (3), 2.3 (4), 3.1 (1), 3.1 (3), 3.1 (4), 3.1 (5) and the number 3.1 (6), the item number 3.3 (2), the item number 3.3 (3), the item number 4.2 (1), 4.2 (2), 4.2 (4) and the item number 4.3 (3) and 4.3 (4) respectively.

The education experts and stakeholders have made the following suggestions on the development of the education management reform strategies for enhancing the quality citizenship:

The procedures should be modified to be more practical so that the stakeholders, departments, Teacher Education College, schools' principals and teachers could implement the procedures.

The researcher should add more detailed measures on some procedures.

The research should correct the language in writing to be more accurate and clear.

Based on the examination of the first draft of education management reform strategies for enhancing the quality citizenship in Cambodia, the researcher have developed in Table 48 the second draft of the education management reform strategies for enhancing the quality citizenship in Cambodia, taking into account the comments and suggestions made by education specialists and stakeholders. The underlined paragraphs were the comments and suggestions made by the 51 education specialists and stakeholders.

Table 48 The second draft of procedures of education management reform strategies for enhancing the quality citizenship in Cambodia

Main Strategy 1	Education Financial Management Reform for quality citizenship
Sub-strategy 1.1	To increase financial autonomy and accountability of schools for quality citizenship
Procedures:	1.1. Increase support of political and government policy and technology and enhance economy and socio-culture to develop a sub-strategy to increase financial autonomy and accountability of schools to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport 1.1 Prepares guidelines on financial autonomy and accountability of schools; 1.2 Adopts Manual Related to School Improvement Fund Financial Management; 1.3 Prepares and adopts policy on financial management, personnel management, teacher evaluation, hiring and dismissal, M&E; 1.4 Strengthen and expand the implementation of Program Budgeting and budget supervision;

Main Strategy 1	**Education Financial Management Reform for quality citizenship**
Sub-strategy 1.1	**To increase financial autonomy and accountability of schools for quality citizenship**
	1.5 Strengthens the implementation of new accounting, recording and reporting system 1.6 Provide training of core trainers at national and sub-national levels and ensure mentoring at school level (school principals/District Office of Education); 1.7 Works with the Ministry of Finance to improve budget disbursement in order to ensure quality education delivery;
	2. The Department of Finance (DOF) to provide training for school directors on financial management system for the implementation of School Improvement Funds for public educational institutions by increasing: (i) autonomy in the management of public institutions; (ii) accountability on budget management; an d(iii) responsiveness to student achievement;
	3. The Provincial Office of Education, Youth and Sport (POE) approves request for disbursement of School improvement funds submitted by the District Office of Education, Youth and Sport (DOE). The POE reviews and approves the school's financial statements, consolidated and submitted by the DOE.
	4. The District Office of Education, Youth and Sport (DOE) approves the School Development Strategic Plan and School Annual Operational Plan.
	5. School board/ School Management Committee 1.1 School board/School Management Committee (SMC) will be established to adopt regulations related to role and responsibilities of school managers, parents and community members on school management; 1.2 The SMC approves School Development Strategic Plan, School Operational Plan and submit request for disbursement of Annual School Improvement Fund and is responsible for overseeing the implementation of the School Improvement Fund, executed by schools; 1.3 Strengthens the implementation of mechanism and tools for enhancing the accountability and responsibility; 1.4 Improves budget transparency; 1.5 Schools to introduce the Result-based School Management System in accordance with good governance principles, ensuring efficiency and effectiveness, and achieving progress as proof of student achievement; 1.6 Schools provide key roles to teachers, community, authorities, parents and students in participating in the planning and implementing process of school Development Plan and Annual Operational Plan by creating a transparent process for the monitoring of school budget implementation; 1.7 Schools create a mechanism to evaluate performance and monitor education quality, especially student learning outcomes;

Main Strategy 1	**Education Financial Management Reform for quality citizenship**
Sub-strategy 1.2	**To conduct regular education budget audit for quality citizenship**
Procedures:	Increase support of political and government policy and enhance economy and technology to develop a sub-strategy to conduct education budget audit to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport 1.1 Adopts an Action Plan on School Financial Audit; 1.2 Prepares and adopts a Master Plan on Internal Audit; 1.3 Strengthens planning and monitoring the use of the education budget via the expansion of a computerized financial management information system (FMIS) at all levels; 1.4 Develops the capacity of inspectors and school principals for the internal and external inspection systems; 1.5 Assigns role and responsibility for budget audit to inspectors and Department of Education (DOE); 1.6 Provides training to school principals on budget management and leadership; 1.7 Strengthens the capacity of the District Office of Education (DOE) to participate in the implementation of School Development Plan

Main Strategy 1	**Education Financial Management Reform for quality citizenship**
Sub-strategy 1.2	**To conduct regular education budget audit for quality citizenship**
	1.8 Provides training courses to build the capacity of the District of Education (DOE) to conduct internal audit of schools; 1.9 Strengthens the capacity of the Department of Internal Audit (DIA) to conduct regular audit of school budget; 1.10 Creates a culture of mutual accountability and transparency of financial management by improving communication and allowing the School Management Committee to monitor school financial transactions;
	2. The Department of Internal Audit (DIA) 2.1 Conducts regular audit of schools to ensure that budgetary resources are used for improving students' learning outcomes 2.2 Adopts standard report on income and expenditure as well as school's financial statements and school annual budget implementation. 2.3 Ensures that funds are used to finance the following core activities and sub-activities: (1) Support to process: administrative process, capacity strengthening, equipment and furniture, repair and maintenance, water, electricity, telephone services and Internet; and (2) Improve the quality of education: Equitable access to education; teaching and learning materials and producing didactic materials; lab materials and experiments; materials of library, books and reading materials; support to vulnerable students, remedial class and prevent drop out; improve the environment and leisure space; life skills, agricultural, workshops and investment; health, hygiene, physical education, art and rewards; child and youth work; and construction.
	3. The Provincial Office of Education, Youth and Sport (POE) 3.1 The POE develops a monitoring plan to monitor the progress of educational services at each school and ensure effectiveness
	4. The District Office of Education, Youth and Sport (DOE) prepares a monitoring plan to monitor the progress of educational services in each school and ensure the efficiency.
	5. Schools 5.1 The school principals use School Improvement Fund (SIF) for teachers' continuous professional development and for improving teaching methods, designed to promote the respect for diversity and human values; 5.2 Strengthen financial management skills, develop and maintain a clear financial management system; 5.3 Create a transparency letterbox to get information or other complaints from stakeholders; 5.4 School principal improves school performance with external findings and addresses audit findings; 5.5 Schol principal creates a mechanism to collect feedbacks from teachers, School Management Committee and community members on leadership and management;
	6. School Management Committee 6.1 Promote accountability for management and monitoring of resource utilization, transparency, security, reliability and transparency; 6.2 Strengthen internal inspection system, based on self-evaluation of schools and regular supervision;
	7. Teachers provide feedbacks to school directors on school management and ensure that the School Improvement Fund is used for teaching and learning process to improve learning outcomes.

Main Strategy 1 Sub-strategy 1.3	**Education Financial Management Reform for quality citizenship** **To increase financial allocations linking budget to education policies for quality citizenship**
Procedures:	Increase support of the economy and technology and enhance the socio-culture to develop sub-strategy to increase financial allocations linking budget to education policies to promote both quality national and global citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Adopts policy and guidelines on financial autonomy and accountability of schools; 1.2 Introduce Result-Based Management by linking inputs to output and outcome indicators, as stipulated in the Education Strategic Plan (ESP) and education policies and ensure sound Monitoring and Evaluation (M&E) and provide regular standardized management and monitoring reports; 1.3 Improve the Core Breakthrough Indicators of the ESP; 1.4 Allocate more resources to schools;
	2. Ministry of Economy and Finance 2.1. Introduces financial allocations linking budget to education policies and performance 2.2. Uses Education Strategic Plan (ESP) and Annual Operational Plan (AOP) to allocate budgetary resources by sub-sector
	2. **The Provincial Department of Education** (POE) 3.1 Evaluates the overall implementation of provincial-level Education Strategic Plan (ESP) and ensure that financial resources are made available for the achievement of core indicators;
	4. District Office of Education (DOE) 6.3 Consolidates the School Improvement Funds and evaluate their financial efficiency based on the district-level indicators;

	4. Schools/Teachers
	
	 4.1 The school principals and teachers should strive to educate the students to respect school regulations, timetables and teach the importance of the respect of law and social order as personal management techniques.
	 4.2 School principals provide technical and academic support to teachers in teaching and learning process;
	 4.3 School principals enforce the Law on Education, teacher professional standards and create favorable conditions for the implementation of school curriculum by the teachers;
	 4.4 Schools introduce budget planning by determining the amount of funds needed to carry out School Development Plan according to specific timetable.
	 4.5 The School Management Committee to prepare reports on School Development Plan implementation by monitoring and evaluating the actual implementation of the activities.
	 4.6 Schools use the School Improvement Fund for activities, such as:
	   - Increasing the use of materials and a better learning environment through material and equipment and the support of teaching and learning materials and teaching activities.
	   - Strengthening the ability of teachers.
	   - Assisting vulnerable children, slow-paced students and students subject to drop out
	   - Increasing enrolment rates, graduation rates, transition rate and completion rate in every level
	   - Providing health care services to students at all levels (health care, food safety and other risks).

Main Strategy 2	**Administrative and General Management Reform for quality citizenship**
Sub-strategy 2.1	**To ensure involvement of parents and local community in school management for quality citizenship**

Procedures:	Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to ensure community involvement in school management to promote quality national and global citizenship, especially focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport 1.1. Transforms the School Support Committee (SSC) into the School Management Committee (SMC) to ensure wider participation of stakeholders in school management; 1.2. Adopts an Operational Manual on SBM that encourage parents, community members and local authority to establish School Management Committee; 1.3. Organizes workshops and training on SBM for the Provincial Office of Education (POE), Teacher Education College (TEC), Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC); 1.4. Widely disseminates the Policy on SBM to the local communities and local authorities.
	2. The Provincial Office of Education (POE) 2.1 The POE provides training to the District Office of Education (DOE) on SBM, focusing on the modalities and responsibilities of parents, local authority and community mem 2.2 bers to participate in school management;
	3. Schools 3.1 School principals initiate the establishment of School Management Committee and encourage community to involve in school management; 3.2 School principals create a climate in the school system which fosters openness, trust and collaboration; 3.3 Schools allocate budget for teachers to meet parents and local community members and for Student Council to hold regular meetings;
	4. The school management committee (SMC) 4.1 Prepares and adopts School Development Plan and Classroom Development Plan with the participation of all key stakeholders, including Student Council; 4.2 Reviews school performance and transparency; 4.3 Organizes regular meeting with parents and conducts home visit;
	5. Teachers 5.1 Participate in regular meetings with parents and local communities to seek their support;
	6. Students 6.1 Hold regular meeting with other stakeholders and present their views to the School Management Committee;

Main Strategy 2 Sub-strategy 2.2	**Administrative and General Management Reform for quality citizenship** **To implement School-Based Management (SBM) for quality citizenship**
Procedures:	Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to avoid threats and consolidate the strength of implementing School-Based Management to promote quality national citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Adopts Policy, Framework and Guidelines on School-Based Management (SBM); 1.2 Integrates SBM into the School Director Training and Teacher Training curriculum; 1.3 Establishes a financing formula for SBM schools; 1.4 Establishes a conceptual framework on Accountability in Education; 1.5 Provides schools with basic needs such as leadership and management competencies, teaching competencies, proper teaching and learning materials, and proper school infrastructure and environment; 1.6 Develops an M&E mechanism for SBM, specially improve regular school inspection; 1.7 Provide capacity building for school principals to provide administrative and technical support to the teachers in the teaching and learning process; 1.8 Ensures the appointment of all school principals in compliance with the School Director Standards;
	2. Directorate General of Education (DGE)

	2.1 Supports and expand the implementation of New Generation School, <u>including by transforming the existing Upper Secondary Resource Schools;</u> 2.2 Establishes and enlarge the budget package for school director training on SBM; 2.3 Establishes school mentoring program on SBM;
	3. <u>National Institute of Education (NIE), Teacher Education Colleges (TEC)</u> 3.1 Provide training to the Provincial Office of Education (POE) and school directors on SBM; 3.2 Provide training to the District Office of Education (DOE) on SBM;
	4. Schools 4.1 School principals coordinate with the SMC to develop a rolling five-year and annual School Strategic Development Plan, by identifying school input, output and outcome indicators, as well as financing sources, with the participation of all key stakeholders; 4.2 School principals facilitate, coordinate the development of and submit the 5 Years School Outcome Indicators and Targets and annual school improvement plan and budget; 4.3 School principals submit the results of the evaluation of school performance against school effectiveness standards to SMC; 4.4 School principals manage, facilitate and coordinate all school fund raising activities; 4.5 School principals gather real data and information gained from student assessments, assessment of teachers' competencies; school performance assessment; 4.6 Schools create a culture of information sharing by identifying problems jointly with all key stakeholders to promote trust in schools by communities, trust among school staff, and especially trust of parents in teachers; 4.7 Schools prepare planning, budgeting, reporting and managing staff performance; 4.8 Schools implement curriculum as guided and extra curricula; 4.9 School principals conduct staff performance management system and propose to reward best performing staff, as well as propose administrative measures for non-performing staff; 4.10 Schools disseminate school data and information to the communities and local authorities;
	5. School Management Committee (SMC) 5.1 School Management Committee provides support to teaching and learning, as well as resource mobilization and prepare school evaluation reports; 5.2 SMC Approves 3-Years School Outcome Indicators and Targets, annual school improvement plan and budget, provides clearance on the evaluation of school performance against school effectiveness standards; and supports and involves in school fund raising; 5.3 SMC approves the rewards for best staff, proposes administrative measures for non performing staff to sub-national/national level, approves the reward for school principal best performance; 5.4 SMC implements M&E system and reports progress;

Main Strategy 2 Sub-strategy 2.3	**Administrative and General Management Reform for quality citizenship** **To implement education policies and Education Strategic Plan (ESP) for quality citizenship**
Procedures:	Enhance political and government policy and economy and increase support of socio-culture and technology to develop a sub-strategy of implementing education policy and ESP to enhance quality national and global citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Updates education policies to be consistent with SDG-4; 1.2 Prepares Cambodia SDG-4 Roadmap and reflects the benchmarks in the Education Strategic Plan (ESP) for 2019-2023; 1.3 Makes efforts to implement two main policies: (1): Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; and (2) Ensuring effective leadership and management of education staff at all levels; 1.4 Coordinates the implementation of core breakthrough indicators and indicators by sub-sectors;

Main Strategy 2	**Administrative and General Management Reform for quality citizenship**
Sub-strategy 2.3	**To implement education policies and Education Strategic Plan (ESP) for quality citizenship**

	1.5 Provides periodical and regular monitoring and review of ESP, focusing on education performance, implementation of strategies, programs, sub-programs and other relevant factors including inputs for education sector;
	1.6 Strengthens M&E system to ensure consistency among priorities and promote implementation of key reform programs;
	1.7 Ensures that education policies and ESP implementation produce highly-qualified human resources to meet the needs of the Industrial Development Policy (IDP), by strengthening education quality at all levels, and improves the implementation of curriculum by including soft skills including social communication skills, problem solving skills, respect for disciplines at work and other technical skills which are important for developing industrial foundation;
	1.8 Implements 5 pillars of Education Management Reforms including:
	   - Teacher policy action plan (TPAP) and personnel development action plan, with clear budget.
	   - School inspection
	   - Assessment
	   - Curriculum Review, Textbooks and Improving School Infrastructure
	   - Higher Education Reform
	1.9 Builds capacity for leadership, management, focus on public educational institutions and the participation of community authorities, parents, guardian's student and all stakeholders;
	1.10 Ensures that the technical departments at different levels and inspectors provide administrative and technical support to schools in the teaching and learning process to improve learning outcomes;
	1.11 Conduct an Institutional and Professional Capacity Needs Analysis to implement Cambodia's 2030 Educational Agenda;

	2. The Provincial Office of Education prepares provincial level ESP;

	3. Schools:
	3.1 Develop a 5-year School Development Plan and an Annual Operational Plan by engaging school management team, teachers, parents and community members;
	3.2 Encourage community to involve in school management and ensure monitoring and evaluation of the 5-year School Development Plan and the Annual Operational Plan and education policies in order to:
	   - Expand education services to vulnerable children group
	   - Improve the quality of educational services
	   - Increase enrolment and completion rates in all study levels
	   - Reduce the dropout rate and repetition rate especially in the secondary schools

	4. Teachers: 4.1 Improve teaching methods by combining classroom teaching with field visits so that the students familiarize themselves with the surrounding environment and understand the goals of sustainable development; 4.2 Conduct regular meeting of subject teachers to create demonstration classes, focusing on teaching methods;

Main Strategy 3	**3. Academic Management Reform for quality citizenship**
Sub-strategy 3.1	**To conducting regular assessment of students for quality citizenship**
Procedures:	Increase support of political and government policy and technology and enhance economy and socio-culture to develop an education management reform sub-strategy to conduct regular assessment of students to promote quality national and global citizen, especially by focusing on on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport (MoEYS)

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.1	**To conducting regular assessment of students for quality citizenship**
	1.1 Creates and adopts a national assessment framework, consisting of national examination systems at grade 9 and grade 12, assessements at grades 3, 6 and 8, Early Grade Reading Assessment (EGRA) and Early Grade Mathematic Assessment (EGMA) at grades 1, 2 and 3, classroom assessments and school-based assessments, to measures learning outcomes and inform the improvements in the teaching and learning and assign roles and responsibilities of different levels of education management to conduct assessment; 1.2 Strengthens assessments at grades 3, 6 and 8, on Khmer, Math and Physics; 1.3 Organizes participation in regional and international tests; 1.4 Improves guidelines, marking standards and monitoring system of national examinations; 1.5 Provides capacity building and decentralizes responsibility regarding grade 9 examination to POE and Municipal Office of Education; 1.6 Creates a system of incentives and sanctions to encourage teachers to teach to meet national standards.
	2. The Department of Education Quality Assurance (EQAD) 2.1 Develops the capacity of staff to conduct national assessments and analyse results, including the EGRA and EGMA; 2.2 Develops a system for classroom assessments and tests; 2.3 Conducts national standardized tests on learning achievements at grades 3, 6 and 8.
	3. The Department of Primary Education (DPE) 3.1 Use the results of EGRA and EGMA as feedbacks to the policy and take actions to address issues raised in the EGRA and EGMA reports;
	4. Schools 4.1 School principals facilitate and coordinate the evaluation of school performance against school effectiveness standards; 4.2 School principals compile data and information for, produce and submit the quarterly progress report on student assessment; 4.3 School principals compile data and information for, produce and submit the annual progress report on achievement of school outcomes indicators and targets; 4.4 School principals incorporate the result of student learning into the school report card; 4.5 School principals encourage parents to monitor student's learning outcomes.
	5. The school management committee (SMC) 4.7 School Management Committee approves the results from school performance evaluation, and endorses the annual progress report on achievement of school outcomes indicators and targets related to student's learning outcomes;
	6. Teachers 6.1 Teachers introduce new teaching methods to improve learning outcomes; 6.2 Teachers develop tests on students' knowledge and skills, as well as on civic education; 6.3 Teachers provide continuous timely support to slow learners and develop teaching pattern and assessment system. 6.4 Teachers encourage excellence among students;
	7. Students 7.1 Students should display the following abilities: - Read effectively and communicate clearly in written and oral form; - Demonstrate an understanding and application of numeracy, math and science; - Think independently, critically, creatively and solve problems; - Accept ownership for civic and personnel responsibilities; - Respect others and act in an honourable and ethical manner; - Work effectively both independently and cooperatively.

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.2	**To improve teaching methods for quality citizenship**
Procedures:	Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy in improving teaching methods to promote quality national and global citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Adopts Guidelines on Teaching Methods for different levels of education: preschool, primary and secondary education, aimed at producing a workforce that can think critically, solve problems, and work collaboratively; 1.2 Adopts Guidelines on Classroom Management; 1.3 Adopts and implements the Policy Action Plan on ICT in Education and provides resources for infrastructure, as well as technical support for schools, teachers and teacher training; 1.4 Establishes teacher mentoring program to support new teachers; 1.5 Introduces project-based learning, student-centered, inquiry-based learning methodologies; 1.6 Implements Reading Standards and Methods for Grades 1, 2 and 3 and Reading Methods in library; 1.7 Integrates ICT into Teaching Methods; 1.8 Builds capacity of technical departments to provide support and training to teachers; 1.9 Establish the Committee for Teacher Development (CTD) to provide evaluation of teachers and coordinate the implementation of Professional Learning Communities (PLCs) for teachers and the Community of Practitionners (COP) for school principals;
	2. The Committee for Teacher Development (CTD) 2.1 Prepares implementation mechanisms and supports regular professional development with the focus on the prepared and in place in-service trainings; 2.2 Evaluates and properly manages all professional development related activities in order to have formal recognitions or giving equivalent certificates (high school diploma, bachelors, or masters…); 2.3 Set specific time for in-service trainings; 2.4 Develops in-service credit system in all aspects; 2.5 Set up competence development system for education staff in all means (in-place training, accelerated training programs, or short training courses for those holding degree); 2.6 Prepares and develops policy guidelines on Professional Learning Community (PLC);
	3. The National Institute of Education (NIE) and the Teacher Education College (TEC) 3.1 Improve pre-service teacher training by integrating new teaching methods and the use of ICT in teaching and learning process; 3.2 Provides on-service training based on teachers' competency gaps in teaching methods; 3.3 Provides in-service trainings every 5 years; 3.4 Integrates new teaching methods, such as active learning, constructive learning, problem-based learning, discovery learning, and inquiry-based learning approaches, as well as new techniques of classroom management in teacher training curriculum; 3.5 Supports new teachers to attend the practicing mechanism in place regularly;
	3. Education Research Council 3.1 Provides evidence and recommendations for policy makers to update the education policies related to teaching methods, PLCs and COPs;
	4. Schools 4.1 Provide materials for teacher to produce teaching aid; 4.2 Provide training on effective lesson management, classroom management and on how to maintain focus in the classroom; 4.3 provide technology so that the teachers can use technology in implementing new teaching methods.
	5. Teachers 5.1 Get trained and updated on teaching methodologies; 5.2 Produce teaching aid and applied appropriate teaching methodologies;

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.2	**To improve teaching methods for quality citizenship**
	5.3 Change the way of teaching away from 'passive learning' models in which students are thought of as 'receptacles' of knowledge to a new approach or active learning, in which students are active 'constructors' of new knowledge; 5.4 Create Professional Learning Communities (PLCs) to share best practices in teaching; 5.5 Apply classroom management techniques to maintain high levels of "withitness" to ensure constant awareness of all students and situations in the classroom; 5.6 Make sure that students are able to manipulate concepts, to think critically, solving problems and learn collaboratively; 5.7 Use information technology (e-mail and the Internet) to promote new learning approaches to promote collaborate learning (e.g. through networking), to construct and synthesize new information (e.g. through PowerPoint presentations), solve problems (e.g. through data processing programs that can find relationships, sort data etc.) and provide a means for dialogue, discussion, and debate interactivity that leads to social construction; 5.8 Introduce Question & Answer activity to help students learning by reflecting on their previous experience and new context to find or 'construct' a new idea that solves different real life problems; 5.9 Focus on teaching thinking skills at the higher end of the Bloom taxonomy, including analysis, synthesis, and evaluation, stimulates students to exchange ideas through discussions, encourage them to synthesize unique ideas; 5.10 Encourage students to prepare PowerPoint Presentations in their groups as a useful social channel for students to work together in teams to produce a creative product to share with the class.

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.3	**To integrate quality citizenship into school curriculum and textbooks for quality citizenship**
Procedures:	Increase support of political and government policy and enhance economy, and technology to develop an education management reform sub-strategy to integrate Good Citizenship into school curriculum and textbooks to promote quality national and global citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Implements the National Curriculum Framework and develops a detailed curriculum; 1.2 Develops detailed curriculum and standards of good citizenship; 1.3 Integrates Good Citizenship Education, consisting of Good Cambodian Citizenship and Good Global Citizenship, into school curriculum and textbooks; 1.4 Develops textbooks aligned to the new detailed curriculum; 1.5 Provides sufficient core textbooks to schools; 1.6 Develops career counselling at secondary and technical education schools; 1.7 Provides additional budgetary resources, teaching materials and training to teachers and school principals to implement the new curriculum and textbooks; 1.8 Provides time, space and support to teachers to build capacity to implement new curriculum and textbooks;
	2. Teacher Training Department (TTD) 2.1 Ensures strict implementation of the Teacher Competency Standards, School Director Standards, Teacher Trainer Standards and Teacher Education Provider Standards (TEPS); 2.2 Conduct regular monitoring and evaluation of all Teacher Education Providers;
	3. The National Institute of Education (NIE), Teacher Education Colleges (TEC) and Regional Teacher Training Centers (RTTC) 3.1 Creates course syllabus; 3.2 Provides training for teacher trainers focusing on global issues; 3.3 Teacher Education Colleges (TECs), Regional Teacher Training Centers (RTTCs), and Provincial Teacher Training Centers (PTTCs) train teacher trainees on the new curriculum and use of core textbooks, including Good Cambodian Citizenship and Good Global Citizenship;

Main Strategy 3	**3. Academic Management Reform for quality citizenship**
Sub-strategy 3.3	**To integrate quality citizenship into school curriculum and textbooks for quality citizenship**
	3.4 Train teachers on how to use new curriculum/ syllabus/ learning outcome standards and core textbooks to design: (1) teaching sequences; and (2) lesson plans ensuring students learning through active approaches and project works.
	4. Schools 4.1 Create a special room using digital tools, such as LCD projectors, computers and other teaching materials for integrating quality citizenship into the classrooms; 4.2 Upgrade library to the standards of the 21st century for students to work together on analytical skills;
	5. Teachers 5.1 Improve teaching methods, including role play, to ensure that students gain knowledge on global issues 5.2 Use ICT and digital tools to implement quality citizenship curriculum in the classrooms; 5.3 Introduce project works and brainstorming sessions to implement quality citizenship curriculum; 5.4 Encourage students to update learning materials on quality citizenship, requiring them to make presentations to the class using useful corlorful pictures, charts and diagrams; 5.5 Introduce writing competition on quality citizenship issues.

Main Strategy 4	**4. Human Resources Management Reform for Quality Citizenship for quality citizenship**
Sub-strategy 4.1	**To provide INSET training, focusing on teaching methods and mentoring programs for quality citizenship**
Procedures:	Increase support of political and government policy and technology, enhance economy and socio-cultural aspects to an develop education management reform sub-strategy to provide INSET development to promote quality national and global citizenship.
	1. Ministry of Education, Youth and Sport (MoEYS) 1.1 Adopts Policy on Continuous Professional Development (CPD), focusing on teaching methods and mentoring programs; - Provides regular professional development framework for education staff. - Provides regular in-service training for education staff. - Ensures the link between Regular Professional Development and Teacher Career Pathway. - Conducts regular monitoring and evaluation system on regular professional development of education staff. 1.2 Develops and adopts a Master Plan on CPD and detailed procedures for the implementation of the CPD; 1.3 Adopts Policy on Lifelong Learning for teachers and school principals; 1.4 1.3 Implement the Teacher Policy Action Plan (TPAP), which is the Roadmap for Teacher Reform by: (i) improving the selection of teachers and school principals; (ii) linking promotion to continuous professional development (systematic INSET/ONSET) and performance assessment; (iii) creating career development by establishing a Teacher Career Pathway (TCP), based on a clear career structure; (iv) strengthening teacher monitoring and evaluation systems; 1.5 Provides incentives to teachers who have displayed high professional standards; 1.6 Reviews role and functions of the Teacher Training Department (TTD) in connection with NIE, TECs and other RTTCs; 1.7 Provides additional budget schools to implement new teaching methods; 1.8 Develops Teacher Reform Master Plan (2020-2030) to sort out overlapping responsibilities of the technical departments to carry out capacity building for teachers and school principals;
	2. The Committee for Teacher Development (CTD or Teacher Council)

Main Strategy 4 Sub-strategy 4.1	**4. Human Resources Management Reform for Quality Citizenship for quality citizenship** **To provide INSET training, focusing on teaching methods and mentoring programs for quality citizenship**
	2.1 Validates the content of in-service training documents focusing on teaching methods and training programs; 2.2 Organizes in-place management system for all kinds of related trainings; 2.3 Supports new teachers to attend the practicing mechanism in place regularly; 2.4 Increases competencies of teacher trainers, core trainers, and trainers at school; 2.5 Organizes, strengthens and practices new mechanism for in-place education staff support to meet the needs and enhance professional skills; 2.6 Organizes a sharing event of the best practices and innovation by well-performed education staff; 2.7 Develops teachers' profession through elective option, in-place credit system, distance learning, step-by-step short term training courses, long term training courses, scholarship, training with letter of confirmation, and accelerated training program; 2.8 Develops credit system for the training courses to motivate education staff to follow Teacher Career Pathway (TCP);
	3. Department of Personnel 3.1 Increases competencies of core officers of human resource entities at national and sub national level to integrate INSET teacher training into Human Resource Development Plan; 3.2 Increases qualifications of education staff and education management committee at the middle level to at least master's degree;
	4. The National Institute of Education (NIE), Teacher Education Colleges (TEC) and Regional Teacher Training Centers (RTTC) 4.1 Establish Continuous Professional Development (CPD) programs that are linked to Teacher Career Pathway (TCP) and Teacher Performance Evaluation system; 4.2 Provide INSET teacher training, focusing on new teaching methods and mentoring programs; 4.3 Enable the teachers to choose from among the various CPD programs that meet their needs;
	5. Schools 5.1 Prepare INSET/ONSET Budget and incorporates it in the School Budget; 5.2 School principals create Professional Learning Communities (PLCs) to share knowledge on school management;
	6. Teachers 6.1 Get trained on establish Professional Learning Communities (PLCs) to share teaching experiences among their peers.

Main Strategy 4	**4. Human Resources Management Reform for Quality Citizenship** **To increasing teacher's PRESET qualifications for quality citizenship for quality citizenship**
Sub-strategy 4.2	Increase support of political and government policy and socio-cultural and enhance economy and technology to develop an education management reform sub-strategy to increasing PRESET teacher qualifications to promote quality national and global citizenship.
Procedures:	**1. Ministry of Education, Youth and Sport (MoEYS)** 1.1 Creates the Committee for Teacher Development (CTD) to assist the ministry in PRESET related policies; 1.2 Reviews the PRESET teacher curriculum for primary and lower secondary school teachers at BA level; 1.3 Reviews the policies and criteria for recruiting teachers; 1.4 Rationalizes the needs and the supply of teachers at national and sub-national levels 1.5 Improves procedures for teacher deployment and redeployment;

Main Strategy 4	**4. Human Resources Management Reform for Quality Citizenship**
	To increasing teacher's PRESET qualifications for quality citizenship for quality citizenship
	1.6 Improves the living standards of education staff by increasing remuneration and allowances; 1.7 Prepares incentives for teachers at disadvantaged areas; 1.8 Establishes a Committee for Teacher Development (CTD) for the accreditation of Teacher Education Providers and develops a master plan on development of Teacher Education College; 1.9 Creates specialization for the National Institute of Education (NIE), Teacher Education College (TEC) and the Royal University of Phnom Penh (RUPP) for different types of teacher and school principal training; 1.10 Encourages the exchange of teaching experiences between Lecturers at the Teacher Training Centers and education specialists working in the technical departments; 1.11 Develops policy that enables the Teacher Education Providers (TEP) to train teachers for private schools, with the number of treinees strictly determined based on the demand of the private schools; 1.12 Develops policy linking teacher education to teacher performance evaluation and Teacher Career Pathway; 1.13 Submits budget requests to MEF to enable the existing teachers to upgrade their qualifications from 12+2 to 12+4; 1.14 Pilots a BA+1 PRESET teacher training program at accredited TEPS to address the shoratages of teachers.
	2. The Committee for Teacher Development (CTD) **2.1** Increases professional qualifications and experiences of lecturers and trainers at Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC) to meet the Teacher Education Provider Standard (TEPS) requirements;
	2. Teacher Training Department (TTD) 2.1 Develops a Medium-term Plan for strengthening teacher educator and a plan on the implementation of B.Ed Fast Track model to address the shortages of teachers;
	3. Teacher Education College (TEC) 3.1 Teacher Education College and Faculty of Education at Royal University of Phnom Penh (RUPP) revise teacher training curriculum (12+4), syllabus and materials; 3.2 Upgrades qualification of teacher trainers; 3.3 Provides support and share resources to other RTTCs;
	4. National Institute of Education (NIE) 4.1 Revises upper secondary teacher training module (MA+1); 4.2 Upgrades qualification of teacher trainers; 4.3 Conducts fast-track BEd training programs;
	5. The Royal University of Phnom Penh (RUPP) 5.1 RUPP to be accredited to conduct fast-track BEd and MEd training programs for teachers and teacher trainers.

Main Strategy 4	**4. Human Resources Management Reform for quality citizenship**
Sub-strategy 4.3	**To implement teacher performance assessment for quality citizenship**
Procedures:	Increase support of political and government policy and technology and enhance the economy and socio-culture to develop an education management reform strategy to implement teacher performance assessment to promote quality national and global citizenship, by focusing on on knowledge, hard, soft and life skills, respect of law and order, community and sustainable development, participation in political activities, as well as recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.
	1. Ministry of Education, Youth and Sport 1.1 Prepares and adopts Manual on Teacher Performance Assessment and Teacher Career Pathway (TCP) and develops procedures for its implementation;

Main Strategy 4	4. Human Resources Management Reform for quality citizenship
Sub-strategy 4.3	**To implement teacher performance assessment for quality citizenship**
	1.2 Improves staff performance appraisal procedures, with clear criteria for promotion/nomination, development a credit system, and assures performance of education staff evaluation committees through a policy on Cambodia Teacher Career Pathway, introduction of Career passport and Credit system; 1.3 Operationalizes a Teacher Support and Assessment office within TTD and <u>Personnel Department;</u> 1.4 <u>Pilots performance-based evaluation at schools (based on student's learning outcomes);</u> 1.5 <u>Pilot the Rotation Policy: Teachers and school principals should rotate every 5 years in the province;</u> 1.6 <u>Coordinates to create teacher's Professional Development Programs;</u> 1.7 <u>Conducts pilot of staff performance appraisal at different levels: central departments, Provincial Office of Education (POE), District Office of Education (DOE) and school;</u>
	2. The Department of Personnel (DoPer) 2.1 Strengthens the system of human resource development; 2.2 Carries out pilot implementation of teacher performance assessment within three department (Department of Personnel, Department of Planning and Department of Finance) and roll out the implementation after initial evaluation 2.3 Pilots implementation of teacher performance assessment with selected PEOs.
	3. Schools 3.1 School principals to implement teacher performance assessment by focusing on student learning outcomes and evaluation by the Student Council; 3.2 Schools implement the principles of education staff performance appraisal system; 3.3 Schools develop education management staff capacity development plan and system 3.4 Schools motivate teacher through performance management; 3.5 School principals provide all required school inputs;
	4. Teachers 4.1 Submit staff's annual workplan to the school principals for performance assessment; 4.2 Submit annual request to school principals for training needs;

Note: underlined paragraphs are the comments and suggestions made by the education specialists and stakeholders.

4.4.3 The examination by the focus group examine of the suitability and feasibility of the second draft of education management reform strategies for enhancing quality citizenship in Cambodia

1) The suitability of the second draft of draft of education management reform strategies for enhancing quality citizenship in Cambodia

All members of the focus group agree that the main, sub-strategies and procedures are suitable and comprehensive.

2) The feasibility of the second draft of draft of education management reform strategies for enhancing quality citizenship in Cambodia

The researcher convened the meeting of the focus group on 30th April 2018 at the meeting room A of the Ministry of Education, Youth and Sports to discuss the

second draft of strategies, sub-strategies and procedures of education management reform in Cambodia for enhancing quality citizenship.

All members of the focus group agree that the main, sub-strategies and procedures are feasible.

The results of the second draft can be summarized as follows:

The focus group discussion maintain the structure of the education management strategies, divided into four components (financial management strategies, administrative and general management strategies, academic management strategies and human resources management strategies). Each of the four strategies are divided into three sub-strategies (total of 12 sub-strategies) in order to enhance the quality citizenship, which consists of nine components.

The focus group also reviewed the procedures for each sub-strategy. In the procedure, the roles and responsibilities of all the stakeholders are discussed, reviewed and improvements were made. The comments were made on the need to conduct training of core trainers on financial management, to create a system of performance evaluation and quality assurance at school level, capacity development for conducting budget audit, promotion of accountability at school, the role of school principals in providing technical and pedagogical support for the teachers in teaching and learning, capacity building for the school principals, the requirement of the schools to provide financial support for the teachers to meet parents on a regular basis, the creation of demonstration classes to promote teaching methods, the research on the new teaching methods and the role of parents in monitoring student's learning outcomes, the role of the Committee for Teacher Development (Teacher Council) to provide evaluation of teachers, the need for a Teacher Reform Master Plan, the establishment of Community of Practionners (COB) for school principals to share experiences and learn from each other, the development of policy linking teacher education to teacher performance evaluationa and Teacher Career Pathway and the pilot of performance-based evaluation at school level.

Morever, the focus group also expressed a need to develop a detailed implementation strategy as follows: (1) prioritization of sub-strategies and procedures;

(2) development of a well-sequencing reform program; (3) investment in implementation capacity; (4) communication of strategies, sub-strategies and procedures to different level of education management; (5) evaluation and assessment of the educational reform programs; and (6) sustainability of the reform. Morevoer, the stakeholders suggested that the government and education departments should allocate more budget, provide more capacity development and focus on school principals.

Therefore, based on the suggestions of the focus group, the second draft of the education management reform strategies for enhancing the quality citizenship in Cambodia were revised and then developed to become the final version as displayed in Table 49.

4.4.4 The final and comprehensive version of education management reform strategies for enhancing quality citizenship in Cambodia

The final version was developed from the second draft, which was revised by the focus group. It will be reviewed by the thesis committee and the researcher will be advised to adjust some parts of the strategies, as displayed in Table 49. The underlined paragraphs were comments and suggestions made by the focus group.

Table 49 The final version of the procedures of education management reform strategies for enhancing the quality citizenship in Cambodia

Main Strategy 1	Education Financial Management Reform for quality citizenship
Sub-strategy 1.1	**To increase financial autonomy and accountability of schools for quality citizenship**
Procedures:	1.1. Increase support of political and government policy and technology and enhance economy and socio-culture to develop a sub-strategy to increase financial autonomy and accountability of schools to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport 1.1 Prepares guidelines on financial autonomy and accountability of schools; 1.2 Adopts Manual Related to School Improvement Fund Financial Management; 1.3 Prepares and adopts policy on financial management, personnel management, teacher evaluation, hiring and dismissal, M&E; 1.4 Strengthen and expand the implementation of Program Budgeting and budget supervision; 1.5 Strengthens the implementation of new accounting, recording and reporting system 1.6 Provides training of core trainers at national and sub-national levels and ensure mentoring at school level (school principals/District Office of Education) <u>through regular professional development programs</u>; 1.7 <u>Strengthen the capacity of technical departments in financial management;</u> 1.8 Works with the Ministry of Finance to improve budget disbursement in order to ensure quality education delivery;
	2. The Department of Finance (DOF) to provide training for school directors on financial management system for the implementation of School Improvement Funds for public

Main Strategy 1	**Education Financial Management Reform for quality citizenship**
Sub-strategy 1.1	**To increase financial autonomy and accountability of schools for quality citizenship**
	educational institutions by increasing: (i) autonomy in the management of public institutions; (ii) accountability on budget management; and (iii) responsiveness to student achievement;
	3. The Provincial Office of Education, Youth and Sport (POE) 3.1 Approves request for disbursement of School improvement funds submitted by the District Office of Education, Youth and Sport (DOE); 3.2 The POE reviews and approves the school's financial statements, consolidated and submitted by the DOE;
	3. **The District Office of Education, Youth and Sport** (DOE) 4.1 Approves the School Development Strategic Plan and School Annual Operational Plan; 4.2 Consolidate financial statements from schools and submit to POE for approval; 4.3 Provides technical support to schools to implement the School Improvement Fund (SIF);
	5. School Management Committee 5.1 School Management Committee (SMC) will be established to adopt regulations related to role and responsibilities of school managers, parents and community members on school management; 5.2 Approves School Development Strategic Plan, Annual School Operational Plan and submit request for disbursement of Annual School Improvement Fund and is responsible for overseeing the implementation of the School Improvement Fund, executed by schools; 5.3 Strengthens the implementation of mechanism and tools for enhancing the accountability and responsibility; 5.4 Improves budget transparency; 5.5 Introduces the Result-based School Management System in accordance with good governance principles, ensuring efficiency and effectiveness, and achieving progress as proof of student achievement; 5.6 Provides key roles to teachers, community, authorities, parents and Student and Children Councils in participating in the planning and implementing process of school Development Plan and Annual School Operational Plan by creating a transparent process for the monitoring of school budget implementation; 5.7 Creates a mechanism to evaluate performance and monitor education quality, especially student learning outcomes against the standard tests; 5.8 Holds annual meeting with teachers, parents, community members and local authorities to discuss the development and implementation of School Development Plan and its annual Operational Plan and propose measures to improve school performance;

Main Strategy 1	**Education Financial Management Reform for quality citizenship**
Sub-strategy 1.2	**To conduct regular education budget audit for quality citizenship**
Procedures:	Increase support of political and government policy and enhance economy and technology to develop a sub-strategy to conduct education budget audit to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport 1.1 Adopts an Action Plan on School Financial Audit; 1.2 Prepares and adopts a Master Plan on Internal Audit; 1.3 Strengthens planning and monitoring the use of the education budget via the expansion of a computerized financial management information system (FMIS) at all levels and the implementation of a Change Management Action Plan in order to facilitate the transition from a traditional financial management to the FMIS; 1.4 Develops the capacity of inspectors and school principals for the internal and external inspection systems; 1.5 Assigns role and responsibility for budget audit to inspectors and District Office of Education (DOE); 1.6 Provides training to school principals on budget management and leadership;

Main Strategy 1	Education Financial Management Reform for quality citizenship
Sub-strategy 1.2	To conduct regular education budget audit for quality citizenship

	1.7 Strengthens the capacity of the District Office of Education (DOE) to participate in the implementation of School Development Plan; 1.8 Provides training courses to build the capacity of the District of Education (DOE) to conduct internal audit of schools; 1.9 Strengthens the capacity of the Department of Internal Audit (DIA) to conduct regular audit of school budget; 1.10 Creates a culture of mutual accountability and transparency of financial management by improving communication and allowing the School Management Committee to monitor school financial transactions;
	2. The Department of Internal Audit (DIA) 2.1 Conducts regular audit of schools to ensure that budgetary resources are used for improving students' learning outcomes and link audit to School-Based Management (SBM); 2.2 Adopts standard report on income and expenditure as well as school's financial statements and school annual budget implementation; 2.3 Ensures that funds are used to finance the following core activities and sub-activities: (1) Support to process: administrative process, capacity strengthening, equipment and furniture, repair and maintenance, water, electricity, telephone services and Internet; (2) Improve the quality of education: Equitable access to education; teaching and learning materials and producing didactic materials; lab materials and experiments; materials of library, books and reading materials; support to vulnerable students, remedial class and prevent drop out; improve the environment and leisure space; life skills, agricultural, workshops and investment; health, hygiene, physical education, art and rewards; child and youth work; and construction; and (3) Address social issues: promotion of the respect for traffic law and drug use prevention;
	3. The Provincial Office of Education, Youth and Sport (POE) 3.1 Approves a monitoring plan to monitor the progress of educational services at each school and ensure effectiveness;
	4.1 **4. The District Office of Education, Youth and Sport** (DOE) prepares a monitoring plan to monitor the progress of educational services in each school and ensure the efficiency.
	5. School 5.1 Strengthens financial management skills, develop and maintain a clear financial management system; 5.2 Creates a transparency letterbox to get information or other complaints from stakeholders; 5.3 School principal uses School Improvement Fund (SIF) for teachers' continuous professional development and for improving teaching methods, designed to promote the respect for diversity and human values; 5.4 School principal improves school performance with external findings and addresses audit findings;
	6. School Management Committee 6.1 Promotes accountability for management and monitoring of resource utilization, transparency, security, reliability and transparency by requiring school principals to submit to the School Management Committee the reports on financial management; 6.2 Strengthens internal quality assurance system and inspection system, based on self-evaluation of schools and regular supervision; 6.3 Provide, on a regular basis, reports on management satisfaction and suggestions; 6.4 Disseminate reports on financial management to all key stakeholders to ensure transparency;
	7. Teachers 7.1 Provide feedbacks to school directors on school management and ensure that the School Improvement Fund is used for teaching and learning process to improve learning outcomes.

Main Strategy 1	**Education Financial Management Reform for quality citizenship**
Sub-strategy 1.3	**To increase financial allocations linking budget to education policies for quality citizenship**
Procedures:	Increase support of the economy and technology and enhance the socio-culture to develop sub-strategy to increase financial allocations linking budget to education policies to promote both quality national and global citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Adopts policy and guidelines on financial autonomy and accountability of schools; 1.2 Introduces Result-Based Management by linking inputs to output and outcome indicators, as stipulated in the Education Strategic Plan (ESP) and education policies and ensure sound Monitoring and Evaluation (M&E) and provides regular standardized management and monitoring reports; 1.3 Improves the Core Breakthrough Indicators of the ESP; 1.4 Allocates more resources to schools; 1.5 Conduct an annual review on budget-policies linkage; 1.6 Collect and compile school-level data on gaps of school quality inputs and make annual plan to provide those quality inputs to schools;
	2. Ministry of Economy and Finance 2.1 Introduces financial allocations linking budget to education policies and performance; 2.2. Uses Education Strategic Plan (ESP) and Annual Operational Plan (AOP) to allocate budgetary resources by sub-sector; 2.3 Allocates budget to implement new reform policies for school improvement;
	3.The Provincial Office of Education (POE) 3.2 Evaluates the overall implementation of provincial-level Education Strategic Plan (ESP) and ensure that financial resources are made available for the achievement of core indicators;
	4. District Office of Education (DOE) 4.2 Consolidates the School Improvement Funds and evaluate their financial efficiency based on the district-level indicators (such as enrolment rates, completion rates and dropout rates); 4.3 Supports and advises on the implementation of strategies and replies to school enquiries in a timely manner;
	5. Schools/ School Principals/ Teachers 5.1 The school principals should strictly enforce attendance of teachers at school; 5.2 The school principals and teachers should strive to educate the students to respect school regulations, timetables, teach the importance of the respect of law and social order as personal management techniques and encourage the students to maintain hygiene and make the schools clean; 5.3 School principals provide technical and academic support to teachers in teaching and learning process; 5.4 School principals enforce the Law on Education, teacher professional standards and create favorable conditions for the implementation of school curriculum by the teachers; 5.5 Schools introduce budget planning by determining the amount of funds needed to carry out School Development Plan according to specific timetable; 5.6 The School Management Committee to prepare reports on School Development Plan implementation by monitoring and evaluating the actual implementation of the activities; 5.7 Schools use the School Improvement Fund for activities, such as: - Increasing the use of materials and a better learning environment through material and equipment and the support of teaching and learning materials and teaching activities; - Strengthening the ability of teachers; - Assisting vulnerable children, slow-paced students and students subject to drop out; - Increasing enrolment rates, graduation rates, transition rate and completion rate in every level;

Main Strategy 1	Education Financial Management Reform for quality citizenship
Sub-strategy 1.3	**To increase financial allocations linking budget to education policies for quality citizenship**
	- Providing health care services to students at all levels (health care, food safety and other risks); - Making provisions for natural disaster management;

Main Strategy 2	Administrative and General Management Reform for quality citizenship
Sub-strategy 2.1	**To ensure involvement of parents and local community in school management for quality citizenship**
Procedures:	Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to ensure community involvement in school management to promote quality national and global citizenship, especially focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport 1.1 Transforms the School Support Committee (SSC) into the School Management Committee (SMC) to ensure wider participation of stakeholders in school management; 1.2 Develops and adopts a TOR for SMC, including its role in school and classroom monitoring and feedbacks; 1.3 Enables parents and communities to raise additional funds and to monitor school and classroom performance according to school calendar, class opening and closing, as well as to monitor teacher's attendance; 1.4 Adopts an Operational Manual on SBM that encourage parents, community members and local authority to establish School Management Committee; 1.5 Organizes workshops and training on SBM for the Provincial Office of Education (POE), Teacher Education College (TEC), Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC); 1.6 Widely disseminates the Policy on SBM to the local communities and local authorities.
	2. The Provincial Office of Education (POE) 2.1 The POE provides training to the District Office of Education (DOE) on SBM, focusing on the modalities and responsibilities of parents, local authority and community mem 2.2 bers to participate in school management;
	3. Schools 3.1 School principals initiate the establishment of School Management Committee and encourage community to involve in school management; 3.2 School principals create a climate in the school system which fosters openness, trust and collaboration; 3.3 Schools allocate budget for teachers to meet parents and local community members and for Student Council to hold regular meetings;
	4. The school management committee (SMC) 4.1 Prepares and adopts School Development Plan and Classroom Development Plan with the participation of all key stakeholders, including Student Council; 4.2 Mobilize additional resources for the implementation of the School Development Plan and Classroom Development Plan; 4.3 Reviews school performance and transparency; 4.4 Organizes regular meeting with parents and conducts home visit;
	5. Teachers 5.1 Participate in regular meetings with parents and local communities to seek their support;
	6. Students 6.1 Hold regular meeting with other stakeholders and present their views to the School Management Committee on how to improve student services;

Main Strategy 2	Administrative and General Management Reform for quality citizenship
Sub-strategy 2.2	To implement School-Based Management (SBM) for quality citizenship
Procedures:	Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to avoid threats and consolidate the strength of implementing School-Based Management to promote quality national citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Adopts Policy, Framework and Guidelines on School-Based Management (SBM); 1.2 Integrates SBM into the School Director Training and Teacher Training curriculum; 1.3 Establishes a financing formula for SBM schools; 1.4 Establishes a conceptual framework on Accountability in Education; 1.5 Provides schools with basic needs such as leadership and management competencies, teaching competencies, proper teaching and learning materials, and proper school infrastructure and environment; 1.6 Develops an M&E mechanism for SBM, specially improves regular school inspection; 1.7 Provide capacity building for school principals to provide administrative and technical support to the teachers in the teaching and learning process; 1.8 Ensures the appointment of all school principals in compliance with the School Director Standards; 1.9 Develop and adopt a Manual on Entrusted Management Approach, according to which good schools are approved to be a model schools, which can play a role model for weak schools to make improvement; 1.10 Provides funds to a model/good schools to offer hand-on support to weak schools and help weak schools to improve to meet the effectiveness standards;
	2. Directorate General of Education (DGE) 2.1 Supports and expand the implementation of New Generation School (NGS), including by transforming the existing Upper Secondary Resource Schools into NGS; 2.2 Establishes and enlarge the budget package for school director training on SBM; 2.3 Establishes school mentoring program on SBM;
	3. National Institute of Education (NIE), Teacher Education Colleges (TEC) 3.1 Provide training to the Provincial Office of Education (POE) and school directors on SBM; 3.2 Provide training to the District Office of Education (DOE) on SBM;
	4. Schools 4.1 School principals coordinate with the SMC to develop a rolling five-year and annual School Strategic Development Plan, by identifying school input, output and outcome indicators, as well as financing sources, with the participation of all key stakeholders; 4.2 School principals facilitate, coordinate the development of and submit the 5 Years School Outcome Indicators and Targets and annual school improvement plan and budget; 4.3 School principals submit the results of the evaluation of school performance against school effectiveness standards to SMC; 4.4 School principals manage, facilitate and coordinate all school fund raising activities; 4.5 School principals gather real data and information gained from student assessments, assessment of teachers' competencies; school performance assessment; 4.6 Schools create a culture of information sharing by identifying problems jointly with all key stakeholders to promote trust in schools by communities, trust among school staff, and especially trust of parents in teachers; 4.7 Schools prepare planning, budgeting, reporting and managing staff performance; 4.8 Schools implement curriculum as guided and extra curricula; 4.9 School principals conduct staff performance management system and propose to reward best performing staff, as well as propose administrative measures for non-performing staff; 4.10 Schools disseminate school data and information to the communities and local authorities;
	5. School Management Committee (SMC) 5.1 Provides support to teaching and learning, as well as resource mobilization and prepare school evaluation reports;

Main Strategy 2	Administrative and General Management Reform for quality citizenship
Sub-strategy 2.2	To implement School-Based Management (SBM) for quality citizenship
	5.2 Approves 3-Years School Outcome Indicators and Targets, annual school improvement plan and budget, provides clearance on the evaluation of school performance against school effectiveness standards; and supports and involves in school fund raising; 5.3 Approves the rewards for best staff, proposes administrative measures for non performing staff to sub-national/national level, approves the reward for school principal best performance; 5.4 Implements M&E system and reports progress;

Main Strategy 2	Administrative and General Management Reform for quality citizenship
Sub-strategy 2.3	To implement education policies and Education Strategic Plan (ESP) for quality citizenship
Procedures:	Enhance political and government policy and economy and increase support of socio-culture and technology to develop a sub-strategy of implementing education policy and ESP to enhance quality national and global citizenship.

	1. Ministry of Education, Youth and Sport
	
	1.1 Updates education policies to be consistent with SDG-4;
	1.2 Prepares Cambodia SDG-4 Roadmap and reflects the benchmarks in the Education Strategic Plan (ESP) for 2019-2023;
	1.3 Makes efforts to implement two main policies: (1): Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; and (2) Ensuring effective leadership and management of education staff at all levels;
	1.4 Coordinates the implementation of core breakthrough indicators and indicators by sub-sectors;
	1.5 Provides periodical and regular monitoring and review of ESP, focusing on education performance, implementation of strategies, programs, sub-programs and other relevant factors including inputs for education sector;
	1.6 Strengthens M&E system to ensure consistency among priorities and promote implementation of key reform programs by identifying roles and responsibilities for M&E at different levels of education management;
	1.7 Ensures that education policies and ESP implementation produce highly-qualified human resources to meet the needs of the Industrial Development Policy (IDP), by strengthening education quality at all levels, and improves the implementation of curriculum by including soft skills including social communication skills, problem solving skills, team work, respect for disciplines at work and other technical skills which are important for developing industrial foundation;
	1.8 Implements 5 pillars of Education Management Reforms including:
	   - Teacher policy action plan (TPAP) and personnel development action plan, with clear budget;
	   - School monitoring and inspection;
	   - Assessment;
	   - Curriculum Review, Textbooks and Improving School Infrastructure;
	   - Higher Education Reform;
	1.9 Builds capacity for leadership, management, focus on public educational institutions and the participation of community authorities, parents, guardian's student and all stakeholders;
	1.10 Ensures that the technical departments at different levels and inspectors provide administrative and technical support to schools in the teaching and learning process to improve learning outcomes;
	1.11 Conduct an Institutional and Professional Capacity Needs Analysis to implement Cambodia's 2030 Educational Agenda;
	1.12 Adopts and implement the Policy on Teacher Career Pathways (TCP);

	2. The Provincial Office of Education 2.1 Prepares provincial level ESP, consistent with the education policies and the national ESP;
	3.Schools:

Main Strategy 2	Administrative and General Management Reform for quality citizenship
Sub-strategy 2.3	To implement education policies and Education Strategic Plan (ESP) for quality citizenship
	3.1 Develop a 5-year School Development Plan and an Annual Operational Plan by engaging school management team, teachers, parents and community members; 3.2 Encourage community to involve in school management and ensure monitoring and evaluation of the 5-year School Development Plan and the Annual Operational Plan and education policies in order to: - Expand education services to vulnerable children group and children from ethnic minority; - Improve the quality of educational services; - Increase enrolment and completion rates in all study levels; - Reduce the dropout rate and repetition rate especially in the secondary schools;
	4.Teachers: 4.1 Improve teaching methods by combining classroom teaching with field visits so that the students familiarize themselves with the surrounding environment and understand the goals of sustainable development; 4.2 Conduct regular meeting of subject teachers to create demonstration classes, focusing on teaching methods;

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.1	To conducting regular assessment of students for quality citizenship
Procedures:	Increase support of political and government policy and technology and enhance economy and socio-culture to develop an education management reform sub-strategy to conduct regular assessment of students to promote quality national and global citizen, especially by focusing on on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1. Ministry of Education, Youth and Sport (MoEYS) 1.1 Creates and adopts an assessment framework, consisting of national examination systems at grade 9 and grade 12, assessements at grades 3, 6, 8 and 11, Early Grade Reading Assessment (EGRA) and Early Grade Mathematic Assessment (EGMA) at grades 1, 2 and 3, classroom assessments and school-based assessments, as well as international assessment system such as PISA and regional assessment initiatives, to measures learning outcomes and inform the improvements in the teaching and learning and assign roles and responsibilities of different levels of education management to conduct assessment; 1.2 Strengthens assessments at grades 3, 6, 8 and 11, on Khmer, Math and Physics; 1.3 Organizes participation in regional and international tests; 1.4 Improves guidelines, marking standards and monitoring system of national examinations; 1.5 Provides capacity building and decentralizes responsibility regarding grade 9 examination to POE and Municipal Office of Education; 1.6 Creates a system of incentives and sanctions to encourage teachers to teach to meet national standards.
	2. The Department of Education Quality Assurance (EQAD) 2.1 Develops the capacity of staff to conduct national assessments and analyse results, including the EGRA and EGMA; 2.2 Develops a system for classroom assessments and tests; 2.3 Conducts national standardized tests on learning achievements at grades 3, 6, 8 and 11;
	3. The Department of Primary Education (DPE) 3.1 Cooperates with EQAD to conduct EGRA, EGMA and assessment at grades 3 and 6 on literacy and math;

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.1	**To conducting regular assessment of students for quality citizenship**
	3.2 Uses the results of EGRA, EGMA and assessment at grades 3 and 6 as feedbacks to the policy and take actions to address issues raised in the EGRA and EGMA reports; 3.3 Works with schools, Teacher Education College (TEC) and Provincial Teacher Training Centers (PTTCs) to implements reading standards for grades 1, 2 and 3 and new teaching methods for Khmer language, mathematics and science;
	4. The Department of Secondary Education (DSE) 4.1 Cooperates with EQAD to conduct assessment at grades 8 and 11 on literacy and math; 4.2 Uses the results of assessment at grades 8 and 11 as feedbacks to the policy;
	5. Schools 5.1 School principals facilitate and coordinate the evaluation of school performance against school effectiveness standards; 5.2 School principals compile data and information for, produce and submit the quarterly progress report on student assessment; 5.3 School principals compile data and information for, produce and submit the annual progress report on achievement of school outcomes indicators and targets; 5.4 School principals incorporate the result of student learning into the school report card; 5.5 School principals encourage parents to monitor student's learning outcomes;
	6. The school management committee (SMC) 6.1 School Management Committee approves the results from school performance evaluation, and endorses the annual progress report on achievement of school outcomes indicators and targets related to student's learning outcomes;
	7. Teachers 7.1 Teachers introduce new teaching methods to improve learning outcomes, such as project works related to priority subjects for students to work individually, in peer or in group; 7.2 Teachers develop tests on students' knowledge and skills, as well as on civic education; 7.3 Teachers provide continuous timely support to slow learners and develop teaching pattern and assessment system; 7.4 Teachers encourage excellence among students;
	8. Students 8.1 Students should display the following abilities: - Read effectively and communicate clearly in written and oral form; - Demonstrate an understanding and application of numeracy, math and science; - Think independently, critically, creatively and solve problems; - Accept ownership for civic and personnel responsibilities; - Respect others and act in an honourable and ethical manner; - Participate in the protection of school environment and maintain hygiene standards; - Work effectively both independently and cooperatively; - Participate in sport activities; - Develop competencies in arts and music;

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.2	**To improve teaching methods for quality citizenship**
Procedures:	Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy in improving teaching methods to promote quality national and global citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Adopts Guidelines on Teaching Methods for different levels of education: preschool, primary and secondary education, aimed at producing a workforce that can think critically, solve problems, and work collaboratively;

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.2	**To improve teaching methods for quality citizenship**

	1.2 Adopts Guidelines on Classroom Management; 1.3 Adopts and implements the Policy Action Plan on ICT in Education and provides resources for infrastructure, as well as technical support for schools, teachers and teacher training; 1.4 Establishes teacher mentoring program to support new teachers; 1.5 Introduces project-based learning, student-centered, inquiry-based learning methodologies; 1.6 Implements Reading Standards and Methods for Grades 1, 2 and 3 and Reading Methods in library; 1.7 Integrates ICT into Teaching Methods; 1.8 Builds capacity of technical departments to provide support and training to teachers; 1.9 Establish the Committee for Teacher Development (CTD) to provide evaluation of teachers and coordinate the implementation of Professional Learning Communities (PLCs) for teachers and the Community of Practitionners (COP) for school principals;
	2. The Committee for Teacher Development (CTD) 2.1 Prepares implementation mechanisms and supports regular professional development with the focus on the prepared and in place in-service trainings; 2.2 Evaluates and properly manages all professional development related activities in order to have formal recognitions or giving equivalent certificates (high school diploma, bachelors, or masters…); 2.3 Set specific time for in-service trainings; 2.4 Develops in-service credit system in all aspects; 2.5 Sets up competence development system for education staff in all means (in-place training, accelerated training programs, or short training courses for those holding degree); 2.6 Prepares and develops policy guidelines on Professional Learning Community (PLC);
	3. The National Institute of Education (NIE) and the Teacher Education College (TEC) 3.1 Improve pre-service teacher training by integrating new teaching methods and the use of ICT in teaching and learning process; 3.2 Provides on-service training based on teachers' competency gaps in teaching methods; 3.3 Provides in-service trainings every 5 years; 3.4 Integrates new teaching methods, such as active learning, constructive learning, problem-based learning, discovery learning, and inquiry-based learning approaches, as well as new techniques of classroom management in teacher training curriculum; 3.5 Supports new teachers to attend the practicing mechanism in place regularly;
	4. Education Research Council 4.1 Provides evidence and recommendations for policy makers to update the education policies related to teaching methods, PLCs and COPs; 4.2 Provides technical support to institutional research and publications; 4.3 Conduct research to document new best practices and innovations in education sector; 4.4 Draft reform roadmaps and policy recommendations for educational reform;
	5. District Office of Education (DOE) 5.1 Helps schools in establishing PLCs for teachers, COPs for school principals and subject-based professional societies; 5.2 Assists schools in implementing Teacher Career Pathways (TCP);
	6. Schools 6.1 Provide materials for teacher to produce teaching aid; 6.2 Provide training on effective lesson management, classroom management and on how to maintain focus in the classroom; 6.3 provide technology so that the teachers can use technology in implementing new teaching methods.
	5. Teachers 5.1 Get trained and updated on teaching methodologies; 5.2 Produce teaching aid and applied appropriate teaching methodologies;

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.2	**To improve teaching methods for quality citizenship**
	5.3 Conduct research on teaching methods in order to improve teaching quality and participate in Continuous Professional Development (CPD) programs; 5.4 Change the way of teaching away from 'passive learning' models in which students are thought of as 'receptacles' of knowledge to a new approach or active learning, in which students are active 'constructors' of new knowledge; 5.5 Create Professional Learning Communities (PLCs) to share best practices in teaching; 5.6 Apply classroom management techniques to maintain high levels of "withitness" to ensure constant awareness of all students and situations in the classroom; 5.7 Make sure that students are able to manipulate concepts, to think critically, solving problems and learn collaboratively; 5.8 Use information technology (e-mail and the Internet) to promote new learning approaches to promote collaborate learning (e.g. through networking), to construct and synthesize new information (e.g. through PowerPoint presentations), solve problems (e.g. through data processing programs that can find relationships, sort data etc.) and provide a means for dialogue, discussion, and debate interactivity that leads to social construction; 5.9 Introduce Question & Answer activity to help students learning by reflecting on their previous experience and new context to find or 'construct' a new idea that solves different real life problems; 5.10 Focus on teaching thinking skills at the higher end of the Bloom taxonomy, including analysis, synthesis, and evaluation, stimulates students to exchange ideas through discussions, encourage them to synthesize unique ideas; 5.11 Encourage students to prepare PowerPoint Presentations in their groups as a useful social channel for students to work together in teams to produce a creative product to share with the class.

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.3	**To integrate quality citizenship into school curriculum and textbooks for quality citizenship**
Procedures:	Increase support of political and government policy and enhance economy, and technology to develop an education management reform sub-strategy to integrate Good Citizenship into school curriculum and textbooks to promote quality national and global citizenship.
	1. Ministry of Education, Youth and Sport 1.1 Implements the National Curriculum Framework and develops a detailed curriculum; 1.2 Develops detailed curriculum and standards of good citizenship; 1.3 Integrates Good Citizenship Education, consisting of Good Cambodian Citizenship and Good Global Citizenship, into school curriculum and textbooks; 1.4 Develops textbooks aligned to the new detailed curriculum; 1.5 Provides sufficient core textbooks to schools; 1.6 Develops career counselling at secondary and technical education schools; 1.7 Provides additional budgetary resources, teaching materials and training to teachers and school principals to implement the new curriculum and textbooks; 1.8 Provides time, space and support to teachers to build capacity to implement new curriculum and textbooks;
	2. Teacher Training Department (TTD) 2.1 Ensures strict implementation of the Teacher Competency Standards, School Director Standards, Teacher Trainer Standards and Teacher Education Provider Standards (TEPS); 2.2 Conduct regular monitoring and evaluation of all Teacher Education Providers;
	3. The National Institute of Education (NIE), Teacher Education Colleges (TEC) and Regional Teacher Training Centers (RTTC) 3.1 Creates course syllabus for teacher training on the new curriculum; 3.2 Provides training for teacher trainers focusing on global issues; 3.3 Teacher Education Colleges (TECs), Regional Teacher Training Centers (RTTCs), and Provincial Teacher Training Centers (PTTCs) train teacher trainees on the new

Main Strategy 3	3. Academic Management Reform for quality citizenship
Sub-strategy 3.3	**To integrate quality citizenship into school curriculum and textbooks for quality citizenship**
	curriculum and use of core textbooks, including Good Cambodian Citizenship and Good Global Citizenship; 3.4 Train teachers on how to use new curriculum/ syllabus/ learning outcome standards and core textbooks to design: (1) teaching sequences; and (2) lesson plans ensuring students learning through active approaches and project works.
	4. Schools 4.1 Create a special room using digital tools, such as LCD projectors, computers and other teaching materials for integrating quality citizenship into the classrooms; 4.2 Upgrade library to the standards of the 21st century for students to work together on analytical skills;
	5. Teachers 5.1 Improve teaching methods, including role play, to ensure that students gain knowledge on global issues 5.2 Use ICT and digital tools to implement quality citizenship curriculum in the classrooms; 5.3 Introduce project works and brainstorming sessions to implement quality citizenship curriculum; 5.4 Encourage students to update learning materials on quality citizenship, requiring them to make presentations to the class using useful corlorful pictures, charts and diagrams; 5.5 Introduce writing competition on quality citizenship issues.

Main Strategy 4	4. HR Management Reform for Quality Citizenship for quality citizenship
Sub-strategy 4.1	**To provide INSET training, focusing on teaching methods and mentoring programs for quality citizenship**
Procedures:	Increase support of political and government policy and technology, enhance economy and socio-cultural aspects to an develop education management reform sub-strategy to provide INSET development to promote quality national and global citizenship.

	1. Ministry of Education, Youth and Sport (MoEYS)
	
	1.1 Implements Policy on Continuous Professional Development (CPD), focusing on teaching methods and mentoring programs;
	
	   - Provides regular professional development framework for education staff.
	   - Provides regular in-service training for education staff.
	   - Ensures the link between Regular Professional Development and Teacher Career Pathway.
	   - Conducts regular monitoring and evaluation system on regular professional development of education staff.
	
	1.2 Develops and adopts a Master Plan on CPD and detailed procedures for the implementation of the CPD;
	1.3 Adopts Policy on Lifelong Learning for teachers and school principals;
	1.4 1.3 Implement the Teacher Policy Action Plan (TPAP), which is the Roadmap for Teacher Reform by: (i) improving the selection of teachers and school principals; (ii) linking promotion to continuous professional development (systematic INSET/ONSET) and performance assessment; (iii) creating career development by establishing a Teacher Career Pathway (TCP), based on a clear career structure; (iv) strengthening teacher monitoring and evaluation systems;
	1.5 Secures funds for regular INSET training programs and pilot a voucher system, in which each teacher can choose the INSET training courses needed;
	1.6 Provides incentives to teachers who have displayed high professional standards;
	1.7 Reviews role and functions of the Teacher Training Department (TTD) in connection with NIE, TECs and other RTTCs;
	1.8 Provides additional budget schools to implement new teaching methods;
	1.9 Develops Teacher Reform Master Plan (2020-2030) to sort out overlapping responsibilities of the technical departments to carry out capacity building for teachers and school principals;

Main Strategy 4	4. HR Management Reform for Quality Citizenship for quality citizenship
Sub-strategy 4.1	**To provide INSET training, focusing on teaching methods and mentoring programs for quality citizenship**

	1.10 Develops strategy for classification of schools and creates short-, medium- and long-term plans for school principal training; 1.11 Creates a platform for the recipients of the Best Teacher Awards and Best School Principal Awards to share their best practices;
	2. The Committee for Teacher Development (CTD or Teacher Council) 2.1 Validates the content of in-service training documents focusing on teaching methods and training programs; 2.2 Organizes in-place management system for all kinds of related trainings; 2.3 Supports new teachers to attend the practicing mechanism in place regularly; 2.4 Increases competencies of teacher trainers, core trainers, and trainers at school; 2.5 Organizes, strengthens and practices new mechanism for in-place education staff support to meet the needs and enhance professional skills; 2.6 Organizes a sharing event of the best practices and innovation by well-performed education staff; 2.7 Develops teachers' profession through elective option, in-place credit system, distance learning, step-by-step short term training courses, long term training courses, scholarship, training with letter of confirmation, and accelerated training program; 2.8 Develops credit system for the training courses to motivate education staff to follow Teacher Career Pathway (TCP); 2.9 Conduct regular assessment of INSET programs offered by Teacher Education Providers;
	3. Department of Personnel 3.1 Increases competencies of core officers of human resource entities at national and sub national level to integrate INSET teacher training into Human Resource Development Plan; 3.2 Links teacher assessment to INSET and promotion; 3.3 Increases qualifications of education staff and education management committee at the middle level to at least master's degree;
	4. The National Institute of Education (NIE), Teacher Education Colleges (TEC) and Regional Teacher Training Centers (RTTC) 4.1 Establish Continuous Professional Development (CPD) programs that are linked to Teacher Career Pathway (TCP) and Teacher Performance Evaluation system; 4.2 Provide INSET teacher training, focusing on new teaching methods and mentoring programs; 4.3 Provide INSET school principal training, focusing on leadership and innovative management; 4.4 Enable the teachers to choose from among the various CPD programs that meet their needs;
	5. Schools 5.1 Prepare INSET/ONSET Budget and incorporates it in the School Budget; 5.2 School principals create Professional Learning Communities (PLCs) to share knowledge on school management; 5.3 School principals coordinate regular meetings between teachers and promote the culture of sharing of best practices among teachers;
	6. Teachers 6.1 Get trained on establish Professional Learning Communities (PLCs) to share teaching experiences among their peers;

Main Strategy 4	4. HR Management Reform for Quality Citizenship for quality citizenship
	To increasing teacher's PRESET qualifications for quality citizenship for quality citizenship
Sub-strategy 4.2	Increase support of political and government policy and socio-cultural and enhance economy and technology to develop an education management reform sub-strategy to increasing PRESET teacher qualifications to promote quality national and global citizenship.
Procedures:	**1. Ministry of Education, Youth and Sport (MoEYS)**
	1.1 Creates the Committee for Teacher Development (CTD) to assist the ministry in PRESET related policies;
	1.2 Reviews the PRESET teacher curriculum for primary and lower secondary school teachers at BA level;
	1.3 Reviews the policies and criteria for recruiting teachers;
	1.4 Rationalizes the needs and the supply of teachers at national and sub-national levels
	1.5 Improves procedures for teacher deployment and redeployment;
	1.6 Improves the living standards of education staff by increasing remuneration and allowances;
	1.7 Prepares incentives for teachers at disadvantaged areas;
	1.8 Establishes a Committee for Teacher Development (CTD) for the accreditation of Teacher Education Providers and develops a master plan on development of Teacher Education College;
	1.9 Creates specialization for the National Institute of Education (NIE), Teacher Education College (TEC) and the Royal University of Phnom Penh (RUPP) for different types of teacher and school principal training;
	1.10 Encourages the exchange of teaching experiences between Lecturers at the Teacher Training Centers and education specialists working in the technical departments;
	1.11 Develops policy that enables the Teacher Education Providers (TEP) to train teachers for private schools, with the number of treinees strictly determined based on the demand of the private schools;
	1.12 Develops policy linking teacher education to teacher performance evaluation and Teacher Career Pathway;
	1.13 Submits budget requests to MEF to enable the existing teachers to upgrade their qualifications from 12+2 to 12+4;
	1.14 Pilots a BA+1 PRESET teacher training program at accredited TEPS to address the shoratages of teachers;
	1.15 Improves the criteria and process of school principal selection, training and appointment and ensures that school principals are appointed based on School Principal Standards and personality traits;
	2. The Committee for Teacher Development (CTD)
	2.1 Increases professional qualifications and experiences of lecturers and trainers at Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC) to meet the Teacher Education Provider Standard (TEPS) requirements;
	2.2 Conduct regular assessment of PRESET programs offered by Teacher Education Providers;
	3. Teacher Training Department (TTD)
	3.1 Develops a Medium-term Plan for strengthening teacher educator and a plan on the implementation of B.Ed Fast Track model to address the shortages of teachers;
	3.2 Develops curriculum for PRESET school principal training;
	4. Teacher Education College (TEC)
	4.1 Teacher Education College and Faculty of Education at Royal University of Phnom Penh (RUPP) revise teacher training curriculum (12+4), syllabus and materials;
	4.2 Upgrades qualification of teacher trainers;
	4.3 Provides support and share resources to other RTTCs;
	5. National Institute of Education (NIE)
	5.1 Increase upper secondary teacher trainer standards to MA+1;
	5.2 Upgrades qualification of teacher trainers;
	5.3 Conducts fast-track BEd training programs;
	5.4 Provides PRESET school principal training;
	6. The Royal University of Phnom Penh (RUPP)

Main Strategy 4	**4. HR Management Reform for Quality Citizenship for quality citizenship**
	To increasing teacher's PRESET qualifications for quality citizenship for quality citizenship
	6.1 RUPP to be accredited to conduct fast-track BEd and MEd training programs for teachers and teacher trainers.

Main Strategy 4	**4. HR Management Reform for quality citizenship**
Sub-strategy 4.3	**To implement teacher performance assessment for quality citizenship**
Procedures:	Increase support of political and government policy and technology and enhance the economy and socio-culture to develop an education management reform strategy to implement teacher performance assessment to promote quality national and global citizenship, by focusing on on knowledge, hard, soft and life skills, respect of law and order, community and sustainable development, participation in political activities, as well as recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.
	1. Ministry of Education, Youth and Sport 1.1 Prepares and adopts Manual on Teacher Performance Assessment and Teacher Career Pathway (TCP) and develops procedures for its implementation; 1.2 Improves staff performance appraisal procedures, with clear criteria for promotion/nomination, development a credit system, and assures performance of education staff evaluation committees through a policy on Cambodia Teacher Career Pathway, introduction of Career passport and Credit system; 1.3 Operationalizes a Teacher Support and Assessment office within TTD and Personnel Department; 1.4 Pilots performance-based evaluation at schools (based on student's learning outcomes); 1.5 Pilots the Rotation Policy: Teachers and school principals should rotate every 5 years in the province; 1.6 Coordinates to create teacher's Professional Development Programs; 1.7 Conducts pilot of staff performance appraisal at different levels: central departments, Provincial Office of Education (POE), District Office of Education (DOE) and school; 1.8 Provides financial and non-financial incentives to teachers to encourage them to improve their performance; 1.9 Creates a pool of possible candidate for school principals and specialists; 1.10 Conducts an entry examination for the selection and provide training of school principal candidates to get a degree on school management; 1.11 Offers a special financial package to outstanding school teachers and school principals to improve further their education;
	2. The Department of Personnel (DoPer) 2.1 Strengthens the system of human resource development; 2.2 Carries out pilot implementation of teacher performance assessment within three department (Department of Personnel, Department of Planning and Department of Finance) and roll out the implementation after initial evaluation; 2.3 Pilots implementation of teacher performance assessment with selected PEOs; 2.4 Establishes a system to record teacher performance;
	3. Schools 3.1 School principals to implement teacher and non-teaching personnel performance assessment by focusing on student learning outcomes and evaluation by the Student Council and student services; 3.2 Schools implement the principles of education staff performance appraisal system by incentivizing high-performing staff members and taking disciplinary actions and sanctions vis-à-vis non-performing staff members; 3.3 Schools develop education management staff capacity development plan and system; 3.4 Schools motivate teacher through performance management; 3.5 School principals provide all required school inputs; 3.6 School principals implement regularly classroom-based assessment by clearly defining learning outcomes in the school curriculum;
	4. Teachers

Main Strategy 4	4. HR Management Reform for quality citizenship
Sub-strategy 4.3	To implement teacher performance assessment for quality citizenship
	4.1 Submit staff's annual workplan to the school principals for performance assessment; 4.2 Submit <u>requests as needed</u> to school principals for training needs;

Note: underlined paragraphs are the comments made by the education specialists and stakeholders in the focus group.

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CHAPTER 5
SUMMARY OF RESEARCH FINDING, DISCUSSION AND RECOMMENDATIONS

The study aims to measure the link between Education Management Reform (EMR) and Quality Citizenship in the Kingdom of Cambodia. The 21st century has witnessed many global challenges, ranging from climate change and skill mismatch to global terrorism. Moreover, the unfolding Fourth Industrial Revolution requires new skills for young people. Education management reform aims to respond to these global challenges, as well as the needs to make education policies responsive to SDG on education (SDG-4). Thus, this research study was conducted in the form of a series of survey to investigate the planning, implementation and evaluation of the EMR in four components of the education management: administrative, academic, financial and human resource management reform and how these components contribute to quality citizenship, which is required for the 21st century.

The objectives of this research study were: (1) To study the conceptual framework of education management strategy and the quality citizenship; (2) To study the current and desirable state of education management reform for enhancing the quality citizenship in Cambodia; (3) To find out the priority needs in education management reform for enhancing the quality citizenship in Cambodia; and (4) To develop education management reform strategies for enhancing the quality citizenship in Cambodia.

The research population of this study includes education experts, directors of MoEYS departments, school administrators, teachers, members of School Support Committee (SSC), students under the Ministry of Education, Youth and Sport of the Kingdom of Cambodia and other stakeholders. The sample of this study is about 710 respondents, based on their willingness to participate in the research, from MoEYS and related NGOs. The sample consists of 10 education policymakers, 30 directors of MoEYS department, 80 school administrators, 150 teachers, 80 School Support Committee (SSC) members, 300 students and 60 other stakeholders (members of the Development Partners and NGOs).

The research instruments used for this research study is the dual-response format or in two-situation columns questionnaires and survey forms. The questionnaires and survey forms were used to collect data in the target institutions identified by the samples. The data were analyzed using descriptive statistics to find out the frequency, percentage, mean and standard deviations (SD) of current and desirable state of education management reform in Cambodia to strengthen the quality citizenship.

Strategy validation approaches were used to develop education management reform strategies for enhancing the quality citizenship in Cambodia. Interviews and focus group discussions of a group of experts and stakeholders were used to validate the conceptual framework and the first and second draft of the strategies to confirm their appropriateness and possibility. With regard to qualitative data analysis, content analysis was used to synthetize and categorize opinions and suggestions of experts and stakeholders on the strategies, sub-strategies and procedures that were developed.

In this chapter, the summary of research findings, discussion and recommendations include the sections as follows.

5.1 Summary of Research Findings

5.1.1 The conceptual framework of education management reform and quality citizenship

The researcher reviewed the concepts, theories and previous research studies related to education management, education management reforms and strategy development in order to draft the conceptual framework of education management reform strategies for enhancing the quality citizenship. This research conceptual framework was validated by five educational experts. In this study, the education management reform includes four main components:

(1) Administrative and general management reform: (i) Education policy and Strategic Plan; (ii) School-Based Management; (iii) Community involvement in school management.

(2) Academic management reform: (i) Education curriculum and textbooks; (ii) Learning and teaching process; (iii) Student assessment and school inspection.

(3) Education finance management reform: (i) Education financial allocation linking budget to education policies; (ii) Financial autonomy and accountability of schools; (iii) Education budget audit.

(4) Human Resources Management Reform: (i) Preservice education; (ii) Inservice training; and (iii) Teacher performance assessment.

The objectives of the education management reform are to develop well-rounded learners and engaged citizen, who possess the following quality:

(1) Quality of good national citizen: (i) Economic component: (a) Knowledge and hard skills; (b) Soft and life skills; (ii) Socio-political component: (a) Respect the law and order; (b) Community and sustainable development; (c) Participation in political activities; and

(2) Quality of good global citizen: (i) Economic component: (a) Recognition of global issues; (b) Respect for diversity and human values; (ii) Socio-political component: (a) Make the world a better place; (b) Responsibility for their actions.

5.1.2 The current and desirable states of education management reform for enhancing quality citizenship

5.1.2.1 The findings from the internal environment

1) The analysis of the current state of the internal environment shows that the overall education management reform for enhancing the quality citizenship in Cambodia is at a middle level (mean = 3.13, S.D = 0.61). Human resources management reform for good citizenship has the highest mean value (mean = 3.19, S.D = 0.66), followed by the academic management reform (mean = 3.16, S.D = 0.65), administrative management reform (mean = 3.12, S.D = 0.61), and Education finance management reform (mean = 3.04, S.D = 0.69), respectively.

2) The findings also indicate that the desirable state of education management reform for enhancing quality citizenship in Cambodia is at the high level (mean = 4.28, S.D = 0.53). Human resources management reform for good citizenship has the highest

mean value (mean = 4.33, S.D = 0.57), followed by the academic management reform (mean = 4.31, S.D = 0.56), administrative management reform (mean = 4.26, S.D = 0.53), and Education finance management reform (mean = 4.26, S.D = 0.53), respectively.

5.1.2.2. The findings from the external environment

The external environment consists of: (i) Political factors: Political stability, bureauracy, regulation, competition, Education Law, Employment law, civil service status, healthcare protection etc.; (ii) Economic factors: Economic growth, monetary policies, fiscal policies, government budget, education expenditure, salary policies etc.; (iii) Socio-cultural factors: Education level, social structure of the population, lifestyles, religion and beliefs, population growth rate, age distribution and life expectancy, gender, family size, minorities etc.; and (iv) Technological factors: Infrastructure and facilities, access to the Internet, technological change, spending on R&D.

1) From the analysis of the external environment, the findings indicate the overall picture of the current states of education management reform for enhancing the quality citizenship in Cambodia is at a middle level (mean = 3.12, S.D = 0.68). When considering each aspect, the politics aspect has the highest mean value (mean = 3.14, S.D = 0.70), then followed by the technology (mean = 3.11, S.D = 0.68), with the economic aspect (mean = 3.11, S.D = 0.67) and the socio-cultural (mean = 3.11, S.D = 0.66) having the same mean value.

2) From the analysis of the external environment, the findings show the desirable state of education management reform for enhancing the quality citizenship in Cambodia is at the high level (mean = 4.30, S.D = 0.61). When considering each aspect, the politics and technology aspect have the highest mean value (mean = 4.31, S.D = 0.61) and (mean = 4.31, S.D = 0.60) respectively, followed by the economic aspect (mean = 4.30, S.D = 0.61) and the socio-cultural (mean = 4.29, S.D = 0.60) respectively.

5.1.3. The strengths, weaknesses, opportunities and threats to education management reform for enhancing the quality citizenship

1) The strengths of the education management reform for enhancing the quality citizenship in Cambodia was the human resources management reform has the lowest PNI modified of (PNI modified = 0.357), with the three sub-components of increasing teacher PRESET qualifications (PNI modified = 0.356), providing INSET training (PNI modified = 0.361) and implementing teacher performance assessment (PNI modified = 0.354).

2) The weaknesses of the education management reform for enhancing the quality citizenship in Cambodia was the education financial management reform, which obtained PNI modified of 0.385. It has three weak subcomponents: (i) linking budget to education policies (PNI modified = 0.381); (ii) increasing financial autonomy and accountability of schools (PNI modified = 0.388) and conducting Education budget audit (PNI modified = 0.386).

3) The opportunity of the education management reform for enhancing the quality citizenship in Cambodia was the political aspect, which achieved PNI modified of 0.374.

4) The threats to the education management reform for enhancing the quality citizenship in Cambodia were the technology aspect, with PNI modified of 0.386, socio-cultural, with PNI modified of 0.381and the economic aspect with PNI modified of 0.380.

5.1.4 Education management reform strategies for enhancing quality citizenship

The findings enabled the researcher to develop four main strategies and twelve sub-strategies for the education management reform strategies for enhancing quality citizenship in Cambodia. These strategies encompass the four components of systemic education management reform, namely administrative, academic, financial and human resources aspects of the reform programs.

Strategies and Sub-strategies	Procedure
1. Education financial management reform for Quality Citizenship (PNI modified = 0.385): 1.1. Increasing financial autonomy and accountability of schools for quality citizenship (PNI modified = 0.388); 1.2. Conducting education budget audit for quality citizenship (PNI modified = 0.386); 1.3. Link budget to education policies for quality citizenship (PNI modified = 0.381);	1.1: Increase support of political and government policy and technology and enhance economy and socio-culture to develop a sub-strategy to increase financial autonomy and accountability of schools to promote quality national and global citizenship, especially by focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1.2. Increase support of political and government policy and enhance economy and technology to develop a sub-strategy to conduct education budget audit to promote quality national and global citizenship, especially by focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	1.3. Increase support of the economy and technology and enhance the socio-culture to develop a sub-strategy of linking budget to education policies to promote both quality national and global citizenship.
2. Administrative and General Management Reform for Quality Citizenship (PNI modified = 0.370): 2.1. Ensure community involvement in school management for quality citizenship (PNI modified = 0.434; 2.2. Implement School-Based Management for quality citizenship (PNI modified = 0.361); 2.3. Implement education policies and Education Strategic Plan for quality citizenship (PNI modified = 0.347);	2.1. Increase support of political and government policy and enhance economy, socio-culture and technology to become an opportunity that contributes to the strength of developing a sub-strategy of ensuring community involvement in the school management to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	2.2. Increase support of political and government policy and enhance economy, socio-culture and technology to develop a sub-strategy to becomes an opportunity that contributes to the strength of implementing School-Based Management to promote quality national and global citizenship.
	2.3. Enhance politics and the economy and increase support of socio-culture and technology to develop a sub-strategy to implement education policies and ESP to enhance quality national and global citizenship.
3. Academic Management Reform for Quality Citizenship (PNI modified = 0.360): 4.1. Conducting regular assessment of students for quality citizenship (PNI modified = 0.383); 4.2. Improving teaching methods for quality citizenship (PNI modified = 0.352); 4.3. Integrating Good Citizenship into school curriculum and textbooks for quality citizenship (PNI modified = 0.349);	3.1. Increase support of political and government policy and technology and enhance economy and socio-culture to develop an education management reform sub-strategy to conduct regular assessment of students to promote quality national and global citizen, especially by focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.
	3.2. Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy to improve teaching methods to promote quality national and global citizenship.
	3.3: Increase support of political and government policy and enhance economy and technology to develop an education management reform sub-strategy to integrate Good Citizenship into school curriculum and textbooks to promote quality national and global citizenship.

Strategies and Sub-strategies	Procedure
4. Human Resources Management Reform for Quality Citizenship (PNI modified = 0.357): 3.1. Providing INSET training for quality citizenship (PNI modified = 0.361); 3.2. Increasing teacher's PRESET qualifications for quality citizenship (PNI modified = 0.356); 3.3. Implementing teacher performance assessment for quality citizenship (PNI modified = 0.354);	4.1. Increase support of political and government policy and technology and enhance economy and socio-cultural aspects to develop an education management reform sub-strategy to provide INSET development to promote quality national and global citizenship.
	4.2. Increase support of political and government policy and socio-cultural and enhance economy and technology to develop an education management reform sub-strategy to increasing PRESET teacher qualifications to promote quality national and global citizenship.
	4.3: Increase support of political and government policy and technology and enhance the economy and socio-culture to develop an education management reform sub-strategy to implement teacher performance assessment to promote quality national and global citizenship, by focusing on knowledge, hard, soft and life skills, respect of law and order, community and sustainable development, participation in political activities, as well as recognition of global issues, the respect for diversity and human values, making the world a better place and responsibility for actions.

5.2 Discussion of Research Findings

5.2.1 The current and desirable states of education management reform for enhancing quality citizenship

1) Analysis of the internal environment

1.1) The analysis of the internal environment indicates that the current states of the overall education management reform for enhancing quality citizenship (mean = 3.13, S.D = 0.61) and each aspect of the four components of education management reform (administrative and general management, academic management, financial management and human resources management reforms) is at a middle level. The findings indicate that top-down education reforms are insufficient. Fullan (2007) concludes that top-down change doesn't work, while bottom-up initiatives either fail to result in much or often fail to connect to the authority structure. He pointed out that the main reason that change fails to occur is that a teacher cannot sustain change if he or she is working in a negative school culture; similarly, a school cannot implement education reform, if it is operating in a less than helpful district; a district cannot keep carrying out change if it works in a state that is not helping to sustain reform.

Therefore, there is a need for whole-system, sustainable reform at all levels: at local school and community level; at the district level and at the national level (Fullan,

2007). Fullan (2007) went further to elaborate that the implementation of educational management reform requires change in practice: (1) the use of new or revised materials (instructional resources such as curriculum materials and technologies), (2) the possible use of new teaching approaches (i.e., new teaching strategies or activities), and (3) the possible alteration of beliefs (e.g., pedagogical assumptions and theories underlying particular new policies or programs).

Cross-country analysis of international tests such as PISA and TIMSS also corroborated with Fullan (2007), showing that greater local decision-making authority and greater accountability have better learning outcomes (Bruns et al., 2011). Within the Cambodian context, the MoEYS therefore should focus on school level reform by strengthening education management at the school level through the implementation of School-Based Management (SBM).

The analysis of each aspect of the education management reform reveals that human resources management reform has the highest mean value (mean = 3.19, S.D = 0.66), while education financial management reform has the lowest mean value (mean = 3.04, S.D = 0.69). This can be explained that it is easier to introduce education reforms at the national level using a top-down approach, while it is more difficult to make reforms sustain in more than 10,000 Cambodian schools without proper coordination of education reform implementation nation-wide, using the bottom-up approach.

As part of the top-down education reforms, in 2015 the MoEYS adopted an ambitious Teacher Policy Action Plan (TPAP), which aims to increase PRESET teacher qualifications, provide INSET training, increase teacher's incentives and provide support for the teaching professions. Two Regional Teacher Training Centers in Phnom Penh and Battambang provinces will be upgraded into Teacher Education College (TEC) increase PRESET teacher qualifications from 12+2 to a Bachelor degree level (12+4) for primary and lower secondary school teachers, as well as provide INSET training to primary and lower secondary school teachers. A fast-track INSET program was launched in 2016 to provide INSET training to some 2,000 teachers and teacher salaries almost tripled since 2013, with education budget also almost increasing by three times.

However, studies show that increasing teacher qualifications may not necessary lead to improved learning outcomes and researchers have identified the weak correlation between spending and results in education that emerged from cross-country and within-country analysis (World Bank, 2003; Bruns et al., 2011).

Moreover, the weaknesses of education financial management reform can be explained by the weak linkage between education budget and education policies, the lack of financial autonomy and accountability at school level and limited capacity in financial audit. Education Strategic Plan (ESP) for 2013-2018 was adopted with ambitious core breakthrough indicators. The ESP has not been used by the Ministry of Economy and Finance (MEF) to allocate education budget by its sub-sectors. Result-Based Management (RBM) has only recently introduced. The findings corroborated with a study by the Swedish International Development Agency (SIDA), which emphasized that education sector assessments are insufficiently results-oriented and tend to follow the form of a blueprint best characterized as a situation analysis (Andersen, Packer, & Ratcliffe, 2008). To better link education budget to policies, it is important to improve the coordination and monitoring of education-related indicators, such as input indicators (which measure the financial, administrative and regulatory resources in terms of share of the budget devoted to education expenditure, number of classrooms available), output indicators (which measure the immediate and concrete consequences of the measures taken and resources used, such as number of schools built, number of teachers trained) outcome indicators (which measure the intermediate results or consequences of output at the level of beneficiaries, such as school enrolment, completion rate, learning achievement) and impact indicators (which measure the long term and aggregated results, such as literacy rates, portion of the population in primary and secondary education). The four monitoring levels identified – input, output, outcome and impact – should be closely linked together and made explicit, and should be used as a guide to decision and policy making. To strengthen education financial management, it is important to strengthen accountability at national, provincial and school levels. Bruns et al. (2011) proposes that education reform focuses on three aspects of reforms, namely: (1) Information for accountability: generation and dissemination of information about inputs, outputs and outcomes; (2) School-based management: decentralization of school-level decision making-autonomy-to school-

level agents; and (3) and Teacher incentives: policies that link pay or tenure directly to performance.

        1.2) The analysis of the internal environment indicates that the desirable states of the overall education management reform for enhancing the quality citizenship (mean = 4.28, S.D = 0.53), and each aspect of the education management is at a high level. The findings confirm that all key stakeholders want Cambodian learners to possess both quality national and quality global citizenship. The concepts of quality citizenship involve knowledge, skills both hard and soft, attitude, commitment and actions to secure an equitable and better world. The quality citizenship also concurs with the SDG.

        The objective of SDG 4 is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Education is an important part of other goals related to public financing of basic services and policy/legal frameworks that guarantee educational opportunities and integration of different objectives (e.g global citizenship, crisis response, environmental knowledge) into national education policies and curricula. The SDG provides a renewed focus on effective learning by focusing on curriculum and teacher training: teaching and learning contents, pedagogy, materials and classroom teaching practice; assessment frameworks; as well as teacher training and professional development. A holistic and coherent curricular approach will require alignment between curriculum content, assessment, teacher training, as well as school leadership and management. Moreover, schools should produce responsible and engaged citizen, as we have seen that the desirable states of responsibility for their actions have the highest mean value. Within the context of increasing global terrorism and fragile political stability in many developing countries, citizen should be acting responsibly in order to prevent radicalization and maintain peace and order.

        Education theories posit that the "technical core" of education lies in the individual classroom. This "technical core" include decision what and how subjects should be taught, what students should be expected to learn, how they should be grouped in the classrooms, what they should be required to demonstrate their knowledge and how their learning should be evaluated (Elmore, 2004). It means that the teachers should be at the core of education management reform to enhance the

quality citizenship. Moreover, teaching and learning requires distributing the responsibility for leadership among roles in the organization. School reform requires reshaping the school culture, i.e. the common values and goals of improving instruction. Thus, principal collegiality with teachers affects school performance only when it is connected to activities that focus the school's purpose. It is suggested that principal leadership, professional development, and participation in decision-making by teachers will have effect on teachers' performance and community only when they are connected to tangible and immediate problems of practice Elmore (2004). This means that promoting quality citizenship requires fundamental changes in the way public schools and school systems are organized and in the way they are led.

More importantly, how to teach soft skills continues to dominate professional debates among educators. The most important soft skills are active listening, speaking, critical thinking, reading comprehension, monitoring, coordination, time management, social perceptiveness, judgment and decision making, service orientation, complex problem solving, writing, and active learning. Even though some reports offer ways to incorporate soft skills into the curriculum across disciplines, there are some limitations in the research available (Research, 2014). Overall, enhancing quality citizenship requires the review of school curriculum to include new concepts of both national and global citizenship.

To test out the framework for Education Management Reform to Strengthen Quality Citizenship, the researcher decided to set up a New Generation School (NGS) at Sisowath High School using a 'school in a school' model. The objectives of the NGS are to implement Education Management reforms in all four components of the conceptual framework in order to promote improved educational quality, improve school governance, and improved efficiency in the state school system. A key element of the NGS model concerns the need to develop a mixed management model in which NGS management are given real authority to create new governance structures and mechanisms agreed with objectives of the experiment. A National Oversight Board, chaired by the Minister of Education, with a local NGO, KAPE, providing technical assistance during Year 1 implementation.

The New Generation School model provides greater freedom and autonomy to experiment in Educational Administration, Curricula, and Teaching & Learning Environments. The NGS management has been given authority to make major changes in the organization of the school in all aspects including the curriculum taught, the selection of teachers and managers. NGS creates specialized curricula with certain themes such science, technology, engineering and mathematics (STEM).

These experiments in educational governance and quality have sought to meet many of the same problems that confront Cambodian state schools such as declining educational standards in the public school sector and an exodus of middle class parents from public to private sector schools.

Therefore, the research results are expected to facilitate the development of the Cambodian to the status of an upper-middle income country by 2030 and a developed country by 2050 by enhancing the quality citizenship as follows:

Firstly, the education management reform are expected to improve the knowledge, technical, soft and life skills of the Cambodian learners.

Secondly, the education management reform are expected to produce graduates who are committed to the sustainable development of their communities.

Thirdly, the education management reform will help Cambodian young people cope with the impact of global challenges, such as climate change, global terrorism and backlashes against globalization.

Fourthly, the education management reform will make it easier for Cambodia to be integrated into the region and the world by learning to appreciate divergent cultures and values.

2) Analysis of the external environment

2.1) The analysis of the current states of the external environment indicates that the education management reform for enhancing quality citizenship (mean = 3.19, S.D = 0.66), and each aspect of the education management is at a middle level. The findings imply that the education management reform require more detailed policies and wide dissemination of the reform measures to all levels of education management systems,

additional budgetary resources to implement the ambitious reform programs, the participation of parents and communities in school management, and the increasing use of technology to improve teaching and learning. The findings also concur with the mainstream education literature. Bacharach B. (1990) notes that some reform strategies propose changing schools from without by imposing changes in the requirements, procedures, position titles, and/or accountability processes of schools, while neglecting the internal workings of schools, such as the length of school day, course title requirement, supervision of instruction. Participation of parents, students and communities in school reforms have also been identified as key to the success of reform program (Bacharach B., 1990; Fullan, 2007). Elmore (2004) identifies five principles that lay the foundation for large-scale school improvements: (1) improvement in instructional practice and performance; (2) a system that value continuous learning as both an individual and collective good; (3) leading by modelling the values and behavior that represent collective goods; (4) cooperation among people in diverse roles performing diverse functions; and (5) the exercise of reciprocity of accountability and capacity. Moreover, education reforms require more budgetary resources to improve the teaching and learning process. It is clear that the current education reform in Cambodia would need more communication, budgetary resources, capacity and participation to enhance the quality citizenship.

The analysis of each aspect of the external environment for the education management reform reveals that the politics aspect has the highest mean value (mean = 3.14, S.D = 0.70). This is caused by the fact that education management reform was initiated by the MoEYS and supported by the Royal Government of Cambodia (RGC) and has become the highlights of the overall reform programs.

As Elmore (2004) pointed out that politics is not about the instructional core but the about the logic of confidence between the schools and the community. Thus, policy decisions are about the symbolism of mobilizing and consolidating political constituencies. Moreover, policy can set the initial expectations about the reform programs, it can set targets for practice and performance, it can stimulate public discussion about content and performance in schools (Elmore, 2004).

The education reform has been launched in response to the government's five-year development strategy, called Rectangular Strategy-Phase III and the "Cambodia Industrial Development Policy 2015 – 2025" to promote sustainable and inclusive high economic growth through economic diversification, strengthening competitiveness and promoting productivity. These policy papers make emphasis on technical skills, high level of education in the workforce, the promotion of STEM (science, technology, engineering and mathematics) among Cambodian students. It also means that education management reform has been able to galvanize support from all key stakeholders, especially the general public. The results of examination reforms in 2014 showed low learning outcomes for the STEM subjects.

In response to the low performance of STEM subjects, the Ministry of Education, Youth, and Sport has taken the following actions: (i) Provide training of trainers and the training of Grade 12 STEM teachers; (ii) Adopt in 2016 a STEM Education Policy that lays out strategies for a comprehensive approach to improved STEM education services in schools. The policy recognizes the need to focus not only on investments in physical STEM facilities, but also on teacher training and the governance structures that ensure that teachers use these facilities. Therefore, science education should become national priority for the 21st century, focusing on different perspectives: quality of science teachers, examination of STEM subjects, STEM education quality, and increasing the number of STEM experts in response to market needs. Furthermore, the education management reform has been widely supported by the general public, viewing the reforms as the stepping stone for Cambodia's moving to the higher middle-income status. The research findings concur with Fullan (2007), who consider that many major education reforms are initiated through government policy making and legislation, reflecting the movement toward more accountability.

Economy, socio-culture and technology aspects all have the same low mean values. This is caused by the fact that school needs more financial resources in order to make real impact on teaching and learning, especially to effectively use ICT, such as education materials, e-books, appliances and computer applications, to improve learning. Indeed, during the last five years, education budget almost tripled, but the lion's share of the increase went to salary increase for teachers, as salary accounts for

87% of the education budget. The findings also suggest that teachers need institutional support to improve teaching and learning. Moreover, parents and community should get more involved in school management and local school culture should be reshaped to respond to the needs of the 21st century.

2.2) The analysis of the external environment indicates that the desirable states of education management reform for enhancing quality citizenship (mean = 4.30, S.D = 0.61), and each aspect of the education management reform is at a high level. The findings confirm that enhancing quality citizenship in Cambodia requires stronger support from all key stakeholders, especially the development of national and school policy, additional increase in school operating budget (SOB) to implement School-Based Management (SBM), active participation of parents and community in school management and the use of technology teaching and learning.

The analysis of each aspect of the education management reform indicates that the politics (mean = 4.31, S.D = 0.61) and technology (mean = 4.31, S.D = 0.60) aspects has the highest mean value. The research findings imply that the education sector and Cambodian schools need to build more trust and confidence relationships between schools and community, require more active involvement of parents and local authorities in the oversight of schools, as well as use of technology to improve teaching and learning. The implication of these findings points out to the fact that successful school reforms require a system of evaluation and selection of school principals, teachers and school inspectors. According to Elmore's "trait theories" of competence in instructional practice and leadership, good teachers, good principals, and good superintendents are thought to be so, because they have the necessary personal qualities for the work, not because they have mastered some body of professional knowledge or because they work in an organizational environment in which they are expected to be competent at what they do as a condition of employment (Elmore, 2004).

Regarding the participation of parents and community in school management, the research findings corroborated with the mainstream education literature. Daft and Becker (1978), cited by Fullan (2007), founded that more highly educated community groups generally put pressure on their schools to adopt high-quality, academic-oriented changes, while less well-educated communities are not likely to initiate change or put

pressure on educators to initiate changes. Fullan (2007) concludes that parents and communities, whose members have limited formal education, are not confident about technical matters and have almost no contact with schools.

5.2.2 Strengths, weaknesses, opportunities and threats to education management reform for enhancing the quality citizenship

5.2.2.1 The findings indicate that the strengths of the education management reform for enhancing the quality citizenship was the human resources management reform has the lowest PNI modified of (PNI modified = 0.357), with the three sub-components of increasing teacher PRESET qualifications (PNI modified = 0.356), providing INSET training (PNI modified = 0.361) and implementing teacher performance assessment (PNI modified = 0.354). At the practical level, the three components are inter-related and contribute directly to the enhancement of quality citizenship. Indeed, there is a logical relationship between teacher's qualifications and quality citizenship. When teachers are better equipped with knowledge and skills they can perform their duties well. However, there is a body of research that points out to the fact that policies aimed at increasing teacher's qualifications and salary increases should be related to the outcomes desired, although there is little hard evidence to link teacher's qualifications and student's learning outcomes (Bacharach B., 1990). Education literature also pointed out to the role of INSET training, especially in teaching methods, in improving student's learning outcomes. Therefore, there is a need to invest more in teaching and creating a system wherein students become active learners (Bacharach B., 1990). At present, interactive learning has become even more important in promoting soft skills and entrepreneurship of students.

Within the Cambodian context, the main challenges are the low qualifications of teachers at all level. The current situation is as follows: (1) About 40 per cent of upper secondary education teachers hold at least a bachelor's degree; (2) Most teachers in lower secondary education hold at least an upper secondary certificate; (3) The main challenge of upgrading the current teacher workforce to the qualifications set in the new teacher policy lies on upgrading primary education teachers. In 2015, 32.6 per cent of primary education staff had an education level below upper secondary, with the need being greatest in remote/rural areas; (4) Over one-half of trainers of primary school

teachers at Provincial Teacher Training Centers (PTTC) holds a bachelor's degree and almost one-quarter holds an upper secondary certificate.

During the first and second year of education reforms, there is strong correlation between providing INSET training to the teachers, additional classes to the students and the increase in student pass rate at grade 12 national examination. Education literature also supports the findings. Elmore (2004) emphasizes that accountability systems don't cause schools to improve; they create the conditions in which it is advantageous for schools to develop new knowledge and skills in their students and staff. CPD in Cambodia has, for a long period, remained fragmented with limited impact and lack of meaningful change in teaching practice and learning outcomes. In 2017, the MoEYS adopted the Policy on Continuous Professional Development (CPD) of teachers, focusing the following: (1) Create a comprehensive regular INSET system with three types of training (a) On-site INSET, (b) Irregular INSET based on the need of MoEYS and (c) Regular INSET with proper system and programs in order to improve teacher's content of subject knowledge, teaching methods and ensure a mentoring program; (2) Establish a credit-system for unifying all types of INSET to upgrade the qualification and additional benefits (pay, promotion); (3) Strengthen the on-site teacher support systems to assist school teachers on subject knowledge and pedagogy; and (4) Develop program for INSET trainers at the Teacher Education Provider Standards (TEPS) to participate in on-site INSET trainings.

Elmore (2004) provides a consensus view on effective professional development: (1) Focuses on student learning of core discipline and skills; (2) Derives from analysis of student learning of specific content in specific setting; (3) Focuses on specific issues of curriculum and pedagogy; (4) Derives from research and exemplary practice; (5) Connects with specific issues of instruction and student learning of academic disciplines and skills in the context of actual classrooms; (6) Develops, reinforces, and sustains group work; (7) Ensures collaborative practice within schools; (8) Networks across schools; (9) Involves active participation of school leaders and staff; (10) Continuous improvement over time; (11) Provides models of effective practice; (12) Is delivered in schools and classrooms; (13) Practice is consistent with message; (14) Uses assessment and evaluation; (15) Actively monitors student learning;

and (16) Provides feedback on teacher learning and practice. The CPD guidance should be provided to resolve an important issue of content versus process. Furthermore, CDP that improves student learning must involve hard, detailed work on the fundamentals of content and pedagogy.

Teacher performance evaluation is crucial in improving learning outcome in New Generation School at Sisowath High School. Teachers are evaluated and tested before taking up assignment at school and only those teachers with successful performance evaluation at the end of academic year will continue to teach in the model school. Examining the impacts of teacher (and principal) characteristics on learning outcome, P. Glewwe (2014)identified that: (1) Providing more educated teachers improves students' test scores; (2) Teacher experience seems to have a positive effect, but the evidence is not quite as strong; (3) Teacher's knowledge of the subjects that they teach has significantly positive effects on learning outcomes; (4) In-service teacher training has strong positive impact on student learning.

5.2.2.2 The weaknesses of the education management reform for enhancing the quality citizenship in Cambodia was the education financial management reform, which obtained PNI modified of 0.385. It has three weak subcomponents: (i) linking budget to education policies (PNI modified = 0.381); (ii) increasing financial autonomy and accountability of schools (PNI modified = 0.388) and conducting Education budget audit (PNI modified = 0.386). The research findings corroborated with similar studies from other developing countries. In the review of literature from 1990 to 2010 regarding the school resources and educational outcomes in developing countries, Glewwe (eds) (2014) found out that the correlation between per-student spending and student performance is not very robust. This means that increase education budget per se will not lead to improved learning outcome and much more is needed.

Fullan (2007) is of the view that successful implementation of systemic reform requires clarity of goals of the reform, institutional capacity, financial and technical support to teachers, principals and other stakeholders, as well as a sound monitoring and evaluation mechanism. Increased budgetary resources, institutional capacity development and technical support for teachers are crucial for successful education management reform. This really shows the needs to strike a balance between spending

on different factors that contribute to improved learning outcomes. Therefore, there is a need to not only spend more on teaching and learning, but also spend better. Therefore, education budget audit should be further improved.

Improving learning outcomes require a balanced approach to budget allocations by linking budget to education policies. During the last five years since 2014, almost all budget increase goes to the salary component of the budget, which account for 87% of education budget, while School-Operating Budget (SOB) accounts for less than 5% of the education budget and very little spending on teaching materials, school buildings and school environment. Education policies aim to increase spending on school inputs, such as the quantity and quality of teachers and school infrastructure.

In order to align budget to education policies, the MoEYS prepared in 2016 the Mid-Term Review (MTR) of the Education Strategic Plan (ESP) for 2014-2018 and reviewed the core breakthrough indicators to comply with SDG-4. The aim of MTR are to strengthen M&E system, to ensure consistency among priorities and promote implementation of key education management reform programs of MOEYS, by aligning activities, indicators, targets with the financing plan form 2016-2018, with projection until 2020. The MoEYS has introduced financial decentralization by: (i) Transforming technical departments into 33 Budget Units, with financial autonomy to implement their own policies; (ii) Transferring financial resources directly to schools through school bank accounts at commercial bank; and (iii) Granting Higher Education Institutions with financial autonomy.

To link budget to education policies, it is suggested that the MoEYS should take the following actions: (1) Plan budget by sub-sector instead of by technical departments (Early Childhood Education, Primary Education, Secondary Education, Non-Formal Education, Higher Education), focusing on results and prioritized investment programs; (2) Ensure reliability, effectiveness, transparency and accountability of the implementation of budget at its unit; and (3) Transfer most financial resources to the implementing units.

To achieve the above objectives, it is important to take the following actions: (1) Strengthening the relationship between policies and budget via the strengthening of result-based budget plan preparation at all levels; (2) Enhancing effectiveness and

efficiency in financial accountability and management process; (3) Strengthening foundations for projection and the use of education budget via the expansion of financial management information system, using computers at all levels; and (4) Strengthening budget planning mechanism and financial report system.

To improve education financial management, especially to increase financial autonomy and accountability of schools, the MoEYS plans to introduce the Manual on School Improvement Fund (SIF) Financial Management and provide training to school principals on financial management. SIF aims to enhance autonomy in the management of public schools, accountability of school principals over budget management, and ensuring the responsiveness to learning outcomes. Therefore, the establishment of a sound financial management system in schools is critical to improving the quality citizenship in order to provide equitable assess by poor and vulnerable children, increasing the rate of survival and graduation rates at secondary schools based on the participation of parents and community in school management. Since 2015, the MoEYS has used commercial bank accounts to wire public funds to schools directly. However, there are some delays in fund disbursement from the National Treasury under the Ministry of Economy and Finance (MEF). The MoEYS has set out the following principles in the introduction of SIF: (1) Public schools are required to use the Result-Based School Management System and will be used in accordance with good governance principles, ensuring efficiency and effectiveness, and achieving progress as proof of students' learning outcomes; (2) Strengthen financial management capacity of public schools by setting up a clear financial management system that can be implemented at all levels and be able to manage and prepare timely financial statements. SIF will be used for the following purposes: (1) Purchasing teaching materials, improving school environment, providing teaching equipment and supporting teaching and learning; (2) Providing professional development of teachers; (3) Helping vulnerable children, low-achievers and students who are susceptible to dropping out; (4) Increasing enrolment rates, graduation rates, transition rate and completion rate at every level; (5) Providing health care services to students.

Moreover, financial management has always been the weakness of education management reform, because of the complexity of financial procedures, reporting

requirements and the lack of training in financial management for education personnel from the management level down to the school principal level. Education personnel are recruited through an examination process to become teachers at different levels. After training to become teachers, they are gradually promoted to the management positions, to become school principals and education managers at all levels. After introducing School-Operating Budget (SOB) in 2000, school principals spend a lot of time working on financial and administrative management and less time on academic management. At different level of education management, especially at school level, there are no professional accountants to work on financial management. Teachers are employed as accountants at schools. Inspection and audit reports always point out to the poor compliance with public financial regulations. A survey among school principals and education managers shows that trainings on financial management are needed to improve overall management of the education systems.

To address the above problem, the MoEYS plans to introduce Teacher Career Pathway (TCP), aimed at offering three different pathways to education managers according to their capacity and ability: (1) the pathway of teacher; (2) the pathway of school administrators; and (3) the pathway of education experts and specialists. Teachers, school administrators and education experts will be selected based on their necessary personal qualities for the work. The implementation of the proposed TCP will allow a clear career progression for teachers and other education professionals to develop further their professional skills.

To improve education budget audit, the MoEYS has taken steps to reshuffle the Department of Internal Audit (DIA) by recruiting new management and to build up institutional capacity of the DIA by organizing in-house training on internal audit procedures and techniques, organizing a series of workshops on financial, personnel, financial and state property management, on the standards of internal audit reporting, preparing annual audit plan and a three-year, rolling Master Plan on Internal Audit. The DIA plan to introduce an IT-based audit by using ICT Accounting and Financial Management Information System (FMIS).

5.2.2.3 The opportunity of the education management reform for enhancing the quality citizenship in Cambodia was the politics aspect (PNI modified = 0.374). This

indicates that the education management reform policies, developed and updated continuously by the MoEYS, have mustered strong support from all key stakeholders, especially among teachers and students. Fullan (2007) proposes the following three phases of educational reform: (1) Initiation; (2) Implementation; and (3) continuation. However, successful education reform depends on the change at the local level: the teacher, the principal, the student, the parent and the community, and the district administrator. Therefore, successful systemic educational management reform requires coordination between top-down and bottom-up reforms (Fullan cited in Anson (1994); Paulston and LeRoy (1982). Arnove (2005)'s review of the literature indicated that most educational reforms were initiated at the national level and were designed to meet the 'human capital' requirements and the needs of the economy or to promote socio-cultural and political change. Therefore, the education reform policies initiated by the MoEYS reflect the requirement of initiating and leading the systemic education management reform to enhance the quality citizenship in Cambodia.

5.2.2.4 The threats to the education management reform strategies for enhancing the quality citizenship in Cambodia come from the technology aspect, with PNI modified of 0.386, socio-cultural, with PNI modified of 0.381and the economic aspect with PNI modified of 0.380. The research findings imply that successful education management reform requires more school inputs, improving school infrastructures, such as school building, wash and toilette facilities, better incentives for teachers, participation of and support by parents and community in school improvement and management, the use of ICT and digital tools and related materials for teaching and learning. The results of education research in developing countries appear to corroborate with the research findings.

In the review of literature from 1990 to 2010 regarding the school resources and educational outcomes in developing countries, P. Glewwe (2014) examined the impacts of 30 school and teacher characteristics on student test scores. The review found out that: (1) Textbooks and similar materials (workbooks, exercise books) improve student learning; (2) Adequate amounts of desks, tables, and chairs increase student test scores; (3) Providing electricity to schools increase student learning; (4) Supplying school infrastructure, such as blackboards, visual aids, high-quality walls, roofs and floors

leads to better learning outcome. School organization, such as class size and pupil-teacher ratio can also affect learning outcomes. School provision of meals not only ensure equitable access to education, but also improved child health and increased student learning.

The research findings also confirm that training of computer skills, access to the Internet, e-books, digital contents and the use of ICT for teaching and learning still lag behind other countries in the region in the Cambodian public and private schools. It means that even with the increase of supply of computers to schools, there will be limited use of computers in teaching and learning process, as most of Cambodian teachers were not trained to used computers to teach at school and ICT has not been integrated into the teaching methods. Therefore, there is an urgent needs for creating short-term training courses on the use of ICT in teaching methods to improve the learning outcomes of students. Even though education literature review by P. Glewwe (2014) found that the results for computers and related materials on learning outcome are less clear, ICT skills are essential for the young people to thrive in the 21st century job market.

The research findings confirm that socio-cultural aspect constitutes a threat to the implementation of teacher performance assessment. This can be explained by the fact that school culture at present is not favourable for teacher assessment and there is a need for the participation of parents, community and the local authority in the School Management Committee, which will be responsible for helping school directors to conduct the performance assessment of teachers. Therefore, school director, teachers and community members should discuss how they should reshape the school culture to make an impact on learning outcomes.

The comments and recommendations made by the respondents in the open-ended questions and survey forms support the main research findings. They can be regrouped into four main components:

5.2.2.5 The recommendations on education financial management reform: strengthening school accountability, improving school budget transparency, increase in school operating budget, increasing incentives for teachers working in hardship and

remote areas, conducting regularly school budget audit, financial autonomy of schools, and improving implementation of school development plan.

5.2.2.6 The recommendations on administrative management reform: school environment improvement, more active participation in school management by prents and communities, cooperation with the local authorities, improvement to school management, holding annual meeting with parents, improvement in wash and toilet facilities at school, timely disbursement of school operating budget and wider dissemination of education policies to teachers and school directors.

5.2.2.7 The recommendations on academic management reform: full implementation of school curriculum, conduct of regular school inspection, review of technical and general education curriculum, improvement of school leadership, increase in teacher professional standards, regular assessment of students and dissemination of student assessment reports to parents, scholarships to poor students, provision of adequate textbooks, provision of computers to schools, supply of laboratories and ICT, full implementation of ICT curriculum at school, regulation regarding private tutoring, increasing teaching hours for ICT and life skills, coaching and evaluation of teaching and provision of teaching aids and improvement in library at school.

5.2.2.8 The recommendations on human resources management reform: inservice teacher training, development of teachers' capacity in research and use of technology, implementation of Teacher Career Pathway, teacher performance assessment, teacher reward for better performance, strengthening monitoring and evaluation systems, teacher deployment in rural areas, teacher houses in rural areas, strengthening teacher recruitment and selection, increasing teacher pre-service education, providing teacher training in ICT, social securities for teachers, provision of inservice training in teaching methods, regular update on new knowledge and technologies, scholarships for teachers to increase qualifications, sanctions for low performance and provision inservice teacher training for English and the use of ICT.

5.2.3 Development of education management reform strategies for enhancing quality citizenship

Four main strategies and twelve sub-strategies were developed based on the research findings. The education management reform strategies for enhancing the quality citizenship were formulated by concluding the PNI level range with the SWOT and TOWS Matrix analysis.

The proposed main strategies were developed to reflect the four components of the conceptual framework of systemic education management reform, while adjusting their ranking based on PNI modified as follows:

(1) Education Financial Management Reform for Quality Citizenship: Based on the research findings, Education Financial Management Reform for Quality Citizenship has the highest PNI modified (PNI modified = 0.385) and are the greatest weakness. Therefore, the MoEYS should make further efforts to implement reform in this area. TOWS matrix analysis indicates that, based on the match of W-T, a defensive Min-Mini Strategy should be formulated to minimize weaknesses and avoid threats to the Education Management Reform.

(2) Administrative and General Management Reform for Quality Citizenship: Based on the research findings, Administrative and General Management Reform for Quality Citizenship has the second highest PNI modified (PNI modified = 0.370) and is considered as the strength. TOWS matrix analysis indicates that, based on the match of S-T, a Strategy should be formulated to capitalize on the strengths of the education reforms by using strengths to avoid threats to the Education Management Reform.

(3) Academic Management Reform for Quality Citizenship: Based on the research findings, Academic Management Reform for Quality Citizenship is ranked third (PNI modified = 0.360) and constitutes strengths of education reform. TOWS matrix analysis identified the matches of S-O, a maxi-maxi strategy can be formulated by using the strengths of the education reforms to take advantage of external opportunities; and

(4) Human Resources Management Reform for Quality Citizenship: Based on the research findings, Human Resources Management Reform for Quality Citizenship

(PNI modified = 0.357) constitutes strengths of education reform. TOWS matrix analysis identified the matches of S-O, a maxi-maxi strategy can be formulated by using the strengths of the education reforms to take advantage of external opportunities.

The proposed sub-strategies based on the components of Education Management Reform for Enhancing Quality Citizenships are prioritized by the PNI modified as follows:

1. Education Financial Management Reform for Quality Citizenship (PNI modified = 0.385) consists of the following three components: 1.1) Increase financial autonomy and accountability of schools for quality citizenship (PNI modified = 0.388); 1.2) Conduct education budget audit for quality citizenship (PNI modified = 0.386); and 1.3) Linking budget to education policies for quality citizenship (PNI modified = 0.381).

2. Administrative and General Management Reform for Quality Citizenship (PNI modified = 0.370) consists of the following three components: 2.1) Ensure community involvement in school management for quality citizenship (PNI modified = 0.434); 2.2) Implement School-Based Management for quality citizenship (PNI modified = 0.361); and 2.3) Education policy and Education Strategic Plan for quality citizenship (PNI modified = 0.347).

3. Academic Management Reform for Quality Citizenship (PNI modified = 0.360) consists of the following three components: 3.1) Conduct regular assessment of students for quality citizenship (PNI modified = 0.383); 3.2) Improve teaching methods for quality citizenship (PNI modified = 0.352); and 3.3) Integrate Good Citizenship into school curriculum and textbooks for quality citizenship (PNI modified = 0.349).

4. Human Resources Management Reform for Quality Citizenship (PNI modified = 0.357) consists of the following three components: 4.1) Provide INSET training, focusing on teaching methods and mentoring program for quality citizenship (PNI modified = 0.361); 4.2) Increase teacher PRESET qualifications for quality citizenship (PNI modified = 0.356); and 4.3) Implement teacher performance assessment for quality citizenship (PNI modified = 0.354).

5.2.3.1 The First Strategy and Its Three Sub-Strategies

Strategy 1: Education Financial Management Reform for Quality Citizenship

Sub-strategy 1.1: Increase financial autonomy and accountability of schools for quality citizenship

Sub-strategy 1.2: Conduct education budget audit for quality citizenship

Sub-strategy 1.3: Linking budget to education policies for quality citizenship

Based on the research findings, Education Financial Management Reform for Quality Citizenship has the highest PNI modified. However, one of its components is identified as strengths, while two of them are considered as weaknesses. Therefore, actions are required to develop a defensive Min-mini (W-T) strategy to reduce weaknesses and increase the strengths by utilizing the external opportunities of political and government policies in order to avoid the external threats of the economy, socio-cultural and technological aspects.

Financial management reform is critical for education management reforms. Successful school reforms require increasing budgetary resources to schools, developing institutional capacity for reform at both policy and school levels, and providing technical support to teachers. Studies identified that the delivery of public services in developing countries fails, due to the ineffective use of resources, especially the incentives faced by system actors (World Bank, 2003).
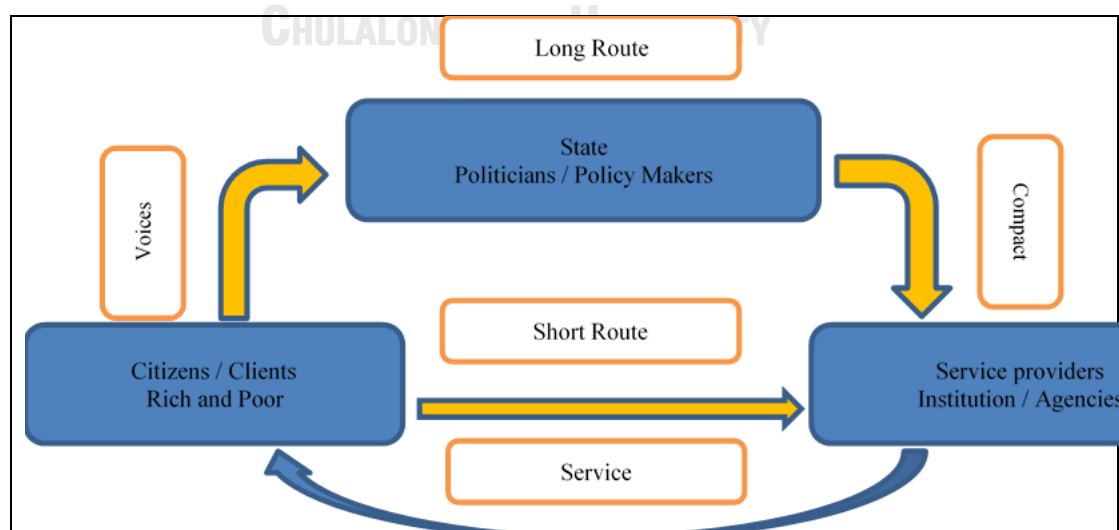
Figure 23 Conceptual Framework: Short and Long Road Toward Accountability (Bruns et al., 2011)

The incentive systems in education face a challenge: the principal-agent problem. The Ministry of Education, Youth and Sport (the principal) requires that school directors and teachers (agents) provide education services that result in better learning outcomes. However, education services are complicated, as learning outcomes depend on the discretionary (individual teachers teach differently), variable (students have different aptitudes, motivation and learning styles) and transaction-intensive (leraning results require repeated and frequent actions) process of interaction between teachers and students (Bruns et al., 2011).

There can be two routes of accountability: the long route and the short route between the users of services (parents and students) and the front-line service providers (schools and teachers). In the long route, the citizens (parents and students) hold the state accountable by ensuring that policymakers deliver services they demand. Therefore, the Ministry of Education, Youth and Sport holds the education service providers (schools and teachers) accountable for learning outcomes. However, there is a shorter route of accountability that requires the citizens (parents and community) to monitor services providers directly. Therefore, to strengthen quality citizenship, the Ministry of Education, Youth and Sport should increase financial autonomy and accountability of schools. Instead of following one size fit all policies, schools should become innovative and improve management by reshaping school culture.

Improving learning outcomes require that schools ensure the basic conditions for learning, from providing school infrastructure to increasing spending on teaching and learning. Therefore, monitoring how schools use financial resources is critical for improving learning outcome. In this sense, conducting regular audit of education budget, including school budget can strengthen the quality citizenship. In a recent report on policies that promote learning, entitled "Growing Smarter: Learning and Equitable Development in East Asia and Pacific", World Bank (2018) notes that education systems should display commitment to delivering skills for prosperity and ensure that basic inputs are in place to deliver education services and there is close correlation between scores of inputs (learning) and scores of outputs (scores of math). For that reason, in Shanghai, education systems measure the use of resources of school inputs and the Department of Education monitors resource use and carry out regular audits.

Achieving education-related goals, especially the SDG goals requires linking budget to education policies. Therefore, a roadmap should be prepared to integrate core breakthrough indicators for SDG in the Education Strategic Plan, with the annualized operational plans prepared based on result-based management. World Bank (2018) pointed out that better learning outcomes require institutional alignment to ensure that policies are synchronized and to concentrate effective, equity-minded public spending on basic education by prioritizing the use of public funds to first ensure good basic education for all, and then expanding opportunities at higher levels. Successful education reforms require change in practice, such as the use of new instructional resources, curriculum materials and technologies, as well as new teaching approaches (Fullan, 2007). Therefore, aligning budget to education policies requires increase in spending on school inputs, such as the quantity and quality of teachers and school infrastructure. The use of financial resources should be monitored through a sound M&E system, to ensure consistency among priorities, by aligning activities, indicators, targets with the financing plan.

5.2.3.2 The Second Strategy and Its Three Sub-Strategies

Strategy 2: Administrative and General Management Reform for Quality Citizenship

Sub-strategy 2.1: Ensure community involvement in school management for quality citizenship

Sub-strategy 2.2: Implement School-Based Management for quality citizenship

Sub-strategy 2.3: Implement Education policy and Education Strategic Plan for quality citizenship

Based on the research findings, Administrative and General Management Reform for Quality Citizenship has the second highest PNI modified, with one of its components considered as weakness and two components as strengths. Successful implementation of education management reform requires the development of a strategy to reduce the internal weakness, increase the internal strengths, capitalize on

the external political, economic and socio-cultural opportunities and avoid the external threats, caused by technology aspect.

Community should be encouraged to get involved in school management to promote short route of accountability. Studies show that parents and community can exert pressure on schools to increase performance (Fullan, 2007). Research findings suggest that information play a very important role to promote accountability at the school level and creating an information feedback loop to connect schools with parents and community led to increased performance, as parents and local community can use the information to mobilize additional resources and ensure more effective use of school inputs. Information can be a motivator for parents and other stakeholders to get involved in school management and monitor school performance and education service delivery. Parents and community participation enable closer monitoring of resource allocation. Participation also enable closer monitoring on the part of teachers. Therefore, participation by parents and community would result in higher learning outcomes (Bruns et al., 2011). At the school level, School Management Committee or Classroom Management Committee should be established to provide opportunities to all key stakeholders to participate in school management.

Enhancing quality citizenship can be achieved through the implementation of School-Based Management (SBM), which is a form of transferring responsibility for and decision-making over school operations to the School Management Committee, consisting of school principals, teachers, parents, community members, and sometimes students. Eric Hanushek and Woessmann (2007) consider that choice and competition, school autonomy and school accountability are the most important incentives that affect learning outcomes. More importantly, school principals and teachers should be empowered to enhance their sense of ownership. School Management Committee, on its part, can help monitor the school's performance in test scores or teacher and student attendance, raise funds for School Development Plan and approve budgets. Therefore, the implementation of SBM creates additional benefits in terms of more input and resources from parents, more effective use of resources, a more open school environment, increased participation of all stakeholders and improved student

performance (Bruns et al., 2011). In addition, the implementation of SBM may result in lower dropout rates, higher pass rates and better academic achievements.

To achieve SDG goals and enhance quality citizenship, the MoEYS should integrate SDG-related indicators into the Education Strategic Plan (ESP) and update education policies to align with the SDG goals. Result-Based Management should be introduced at all level of education management to improve the coordination and monitoring of education-related indicators, such as input, output, outcome and impact indicators. Institutional alignment is needed to increase education financial allocations linking budget to ESP and education policies. Provincial-level and district-level indicators should be developed, with actions geared towards solving problems faced by local districts and schools. Provincial-level ESP, district-level indicators and school policies can also be used to build trust and confidence between the schools and the community by way of improving learning outcomes, increasing enrolment and completion rates and reducing repetition and dropout rates. School policy can set high expectations about the performance in schools (Elmore, 2004).

5.2.3.3 The Third Strategy and Its Three Sub-Strategies

Strategy 3: Academic Management Reform for Quality Citizenship

Sub-strategy 3.1: Conduct regular assessment of students for quality citizenship

Sub-strategy 3.2: Improve teaching methods for quality citizenship

Sub-strategy 3.3: Integrating Good Citizenship into school curriculum and textbooks for quality citizenship

Based on the research findings, Academic Management Reform for Quality Citizenship has the third highest PNI modified, with one of its components considered as weakness and two components as strengths. Successful implementation of education management reform requires the development of a maxi-maxi (S-O) strategy to reduce the weakness, increase the strengths, while using the external political, economic and socio-cultural opportunities to avoid the external threats created by the technology aspect.

Conducting regular assessment of students can be used as a tool to address the learning crisis. About 40 percent of students in East Asia and Pacific are in school systems that perform well and allow them to learn. But the other 60 percent study in poorly performing school systems where performance in key subjects is either low or unknown (World Bank, 2018). Therefore, schooling is not the same as learning and the conduct regular assessment of students for quality citizenship has emerged as one of the key pillars of education reforms to achieve the SDG. Students should be assessed to diagnose issues and assessment reports should be used to inform instruction (World Bank, 2018). Therefore, a national assessment framework should be established and used as instruments to improve teaching, learning and education systems. At the primary school level, Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA) can be used to improve student's literacy and numeracy. At the secondary education level, different assessment approaches should be used, including classroom assessment and examinations.

Debates are ongoing for assessing the skills of the 21st century. Assessment strategies that are appropriate for teaching and learning of content knowledge are different from those strategies appropriate for teaching skills and competencies, especially for transversal competencies (TVC), such as critical and innovative thinking (creativity, entrepreneurship, resourcefulness, application skills, reflective thinking, reasoned decision-making), interpersonal skills (communication skills, organizational skills, teamwork, collaboration, sociability, collegiality, empathy, compassion), intrapersonal skills (self-discipline, ability to learn independently, flexibility and adaptability, self-awareness, perseverance, self-motivation, compassion, integrity, self-respect), global citizenship (awareness, tolerance, openness, responsibility, respect for diversity, ethical understanding, intercultural understanding, ability to resolve conflicts, democratic participation, conflict resolution, respect for the environment, national identity, sense of belonging) and media and information literacy (ability to obtain and analyse information through ICT, ability to critically evaluate information and media content, ethical use of ICT) etc. (UNESCO, 2016). Studies pointed out that the assessment of TVC at the school level was generally integrated into specific subjects, across subjects, and/or extracurricular activities. At the teacher level, methods ranging from standardized tests to school or classroom based assessments were used by

teachers. Teachers reported that their assessments evaluate students' understanding of content and critical analysis. However, the assessment also focused on students' performance in areas such as evidence-based opinion; students' constructive participation in discussion; collaboration; and formulation of innovative ideas. ICT should be used in an optimal manner to support the active learning methods in order to develop both cognitive and non-cognitive skills of the Cambodian learners.

The research findings confirm that technology is a threat to education management reform for enhancing the quality citizenship in Cambodia. This implies that improving teaching and learning process, especially teaching methods reqire both provision of ICT facilities at school and provision of short-term training to Cambodian teachers to use ICT, such as computers and LCD projectors in teaching and learning, especially the integration of ICT in teaching methods to improve the learning outcomes of students.

Teaching methods should be improved in order to ensure equitable learning for all. Elmore (2004) considers improvement in instructional practice and performance as one of the foundations of school improvement, while Fullan (2007) considers that educational change requires the use of new teaching strategies or activities. Teaching subjects or contents is different from teaching thinking skills. Therefore, the recent movement of education reform focuses on the use of "active learning" as an educational method to promote learning outcomes. In order to teach thinking skills, students are taught to think while they are doing something (Bonwell & Eison, 1991). Becoming aware of their own thinking is called metacognition (Flavell, 1981). Active learning requires self-motivated, interactive and deep learning in order to: (i) learn knowledge and sills; (ii) develop thinking ability, judgement and ability to express oneself; (iii) foster the motivation to learn; and (iv) promote collaboration with other people (Abe, 2018). With the advange of Google search engine, the concept of knowledge is shifted from knowing information to the mastery of thinking ability, i.e. the ability to make a judgement, establish links between the dots of knowledge, propose solutions, create and apply new ideas. Learning by doing and learning how to learn should be the strategy for lifelong learning in the 21st century.

Good Citizenship and transversal competencies (TVC) as relatively new concepts and should be integrated into school curriculum and textbooks. Fullan (2007) concurs with this view point, noting that successful educational change requires the use of new curriculum materials. Recent studies by the World Bank (2018) pointed out that in the top education systems, textbooks tend to cover fewer topics but in great depth. During the early years, students are required to gain mastery of skills, subject contents in math and science. In later years, teachers are using complex ways of promoting understanding, not memorization by adding on complexity. Thus, the students spend more time on few topics. With the advange of technologies within the framework of the Fourth Industrial Revolution, we have seen that the future of science will bring more integration between subjects. STEM education should become priority for developing countries to catch up with the latest trends in technology. Therefore, collaborative learning and project-based learning will enable students to link different concepts in an attempt to create new ideas. It is expected that the strategies for academic management reform will equip Cambodian learners with better knowledge and cognitive and non-cognitive skills, as well as commitment and attitudes to become a good national and global citizen and prepare them better for future job markets. This will, in turn, address the skill mismatch that Cambodia is now facing and sustain high economic growth in the years to come.

5.2.3.4 The Fourth Strategy and Its Three Sub-Strategies

Strategy 4: Human Resources Management Reform for Quality Citizenship

Sub-strategy 4.1: Provide INSET training, focusing on teaching methods and mentoring program for quality citizenship

Sub-strategy 4.2: Increase teacher PRESET qualifications for quality citizenship

Sub-strategy 4.3: Implement teacher performance assessment for quality citizenship

Based on the research findings, Human Resources Management Reform for Quality Citizenship with the lowest PNI modified was identified as the strengths of the education management reform. All of its three components considered as strengths. It

is, therefore, important to develop a maxi-maxi (S-O) strategy to increase further the internal strengths, capitalize on the external political, economic and socio-cultural opportunities and avoid the external technological threats.

Increased investment in teachers should continue to be top priority for education management reform. A cross-country research in the Asia Pacific indicates that education systems perform best when teachers are respected, prepared, selected and advanced in their careers on the basis of merits, have clear learning goals and performance expectations for students, and are supported in their work (World Bank, 2018). Within the Cambodian context, the MoEYS should accelerate the implementation of the Teacher Policy Action Plan (TPAP), which is the Roadmap for Teacher Reform by: (i) improving the selection and recruitment of teachers and school principals; (ii) linking promotion to continuous professional development (systematic INSET/ONSET) and performance assessment; (iii) creating career development by establishing a Teacher Career Pathway (TCP), based on a clear career structure and reward management; and (iv) improving teacher deployment and management by strengthening teacher monitoring and evaluation systems.

Firstly, the policies on teacher recruitment and selection should be updated to make teaching profession attractive. More incentives should be provided to attract the best and the brightest to become teachers. Teachers should be recruited from among the top tier of school and university graduates. Therefore, increasing teacher PRESET qualifications is crucial for enhancing quality citizenship. The World Bank (2018) notes that in high-performing systems teacher training focuses on classroom practice and the ability to teach curriculum and policies are designed to keep experienced teachers in the classroom and leading as peers and researchers. Teachers should also have clear learning goals and uncluttered texts. Therefore, increasing PRESET teacher qualifications should also take into consideration teacher training curriculum, which should aim to develop inquiring, knowledgeable and caring teachers who help to create a better and more peaceful world. Teacher training curriculum should also seek foster the ability to identify isssues and solve them, logical thinking and communication skills. The curriculum should aim to prepare teachers to work with the students to generate questions on the existing knowledge and help them reflex and create new knowledge.

Secondly, the implementation of the Policy on Continuous Professional Development (CPD) should focus on observation, collaboration, and feedback. The MoEYS should review human resource management regulations by linking promotion to continuous professional development (systematic INSET/ONSET) and performance assessment. The World Bank (2018) notes that high-performing systems spend more time on activities related to analysis of instructional practice. The teachers spend less time to contact with students and more time to INSET professional development and research on the effectiveness of various teaching strategies. The MoEYS should provide INSET training, focusing on teaching methods and mentoring program for quality citizenship, can be the most cost-effective way of improving learning outcomes. At the primary level, improving teaching methods should focus on reading methods for Grades 1, 2 and 3 and reading methods in library, as well as improving teaching early grade mathematics and sciences. At the secondary level, teaching methods should focus on different active learning activities, including inquiry-based learning, collaborative learning and project-based learning. New teachers should be given support by implementing mentoring programs, observing classroom practices and providing feedbacks.

A support system for INSET teacher training should incorporate active learning, and a modern blended learning model: on-the-job training and collaboration (70%); Professional Learning Communities (20%); and coaching and expert support (10%). This model of effective practice should offer opportunities for feedback and reflection. Therefore, Professional Learning Communities (PLCs) should be established at a cluster school level to improve instructional practice. The Sisowath New Generation School provide teachers with lesson observation where lessons can be videotaped and teaching methods should be improved before the video can be disseminated widely within the PLC.

Thirdly, teacher accountability plays an important role in enhancing quality citizenship. Therefore, the MoEYS should create career development for teachers, school principals and education specialists by establishing a Teacher Career Pathway (TCP), based on a clear career structure and reward management. Moreover, teacher performance assessment should be an integral part of teacher reform. Improving the

principal (parents and students) – agent (teachers) relationships can help schools to achieve organizational objectives of having better learning outcomes. Teachers should be periodically assessed to encourage them to spend more time on professional development, incorporate active learning in instructional practice and strengthen on-the-job collaboration. The World Bank (2018) notes that high-performing systems encourage teachers to spend considerable time on activities related to instructional improvement. Teachers should not only spend time in class, but also prepare lesson plans, grade homework, write tests and provide after-hours support to students. Therefore, Teacher Career Pathway (TCP) should be created to allow teachers to be promoted and increase their salaries while remaining in the classroom. TCP should help keep experienced teachers in the teaching profession, deliver instruction and mentor their peers. Experiences from Sisowath New Generation School show that teacher performance assessment improve teacher motivation and encourage teachers to improve teaching methods.

Fourthly, the MoEYS should improve teacher deployment and management by improving the Human Resource Management Information System (HRMIS), creating monitoring and evaluation mechanism for all teachers, based on Teacher Professional Standards and staffing norms, and conducting systematic inspection of schools to ensure that reforms are implemented at the school level.

By implementing the above strategies, we expected that the Cambodian students will have better knowledge, hard and soft skills and core life skills and will be more engaged in actions to become a good national and global citizen. This will also help Cambodia solve the problems of skill mismatch and develop among the students both cognitive and non-cognitive skills that are useful for the job markets. Therefore, the implementation of the education management reform strategies will also enable Cambodia to achieve the SDG goals and targets, as well as the objectives set by Education 2030 Agenda for Action. It is therefore crucial for the reform programs to be implemented at both top-down, but also at the school level through the implementation of the School-Based Management project that has been initiated as the result of the research study.

5.3 Recommendations

5.3.1 Recommendations for the Research Utilization

5.3.1.1 The Ministry of Education, Youth and Sport (MoEYS) should take actions to accelerate education financial management reform for quality citizenship, by granting schools with financial autonomy and accountability, implementing regular audit of school operating budget (SOB) and increasing more resources to schools for teaching and learning. The above suggestions are based on research findings which indicate that education financial management reform has the lowest mean value in the current state of the internal environment of education management reform and became threats to the educational reform. Moreover, during the focus group discussion and in the comments made by respondents, key stakeholders suggested that MoEYS should allocate more budget to schools to improving learning outcomes.

The sub-strategies of *increasing financial autonomy and accountability of schools and conducting regular audit of school budget* should be implemented immediately. The Internal Audit Department (IAD) should prepare a medium-term Action Plan, aimed at auditing at least 5 to 10 percent of schools annually. Moreover, School Boards or School Management Committees (SMC) should be established to promote information accountability. School principals should provide regular reports and SMC should provide validation on the school budget implementation. Bruns (2011) highlighted information accountability as a necessary step to improve school management to ensure better learning outcomes.

The Ministry of Economy and Finance (MEF) *should allocate more budgetary resources to schools to improve the teaching and learning process* and adopt a new financial manual to increase spending on teaching and learning. Capacity building should be given to schools to improve financial management, while complex financial procedures should be streamlined to make it easier for schools to comply with financial regulations.

The technical Departments of MoEYS, namely the Education Quality Assurance Department (EQAD) and the Internal Audit Department (IAD) should conduct, on a regular basis, student assessment and audit of school operating budget

(SOB) to improve learning outcomes. The EQAD should conduct thematic inspection to identify issues facting the education system and propose actions to improve learning outcomes. The findings from the assessment and audit should be used to provide feedback loops into education policies and teacher training.

The Provincial Departments of Education (POE) should improve inspection of schools, focusing on improved management. More school inspectors should be recruited and trained and adequate budget should be provided to conduct regular school inspection. POE should provide training, on a regular basis, for the education officials at the District Office of Education (DOE) on how to provide support to schools, including on "technical core", such as issues in curriculum implementation, teaching methods, school management, as well as classroom management.

Schools should develop, on a regular basis, self-evaluation reports, with the focus on the four aspects of education management reforms, namely administrative and general management reform, academic management reform, financial management reform and personnel management reform. Special attention should be given to how to improve learning outcomes of students. The school self-evaluation reports shoul be used for external inspection.

5.3.1.2 The Ministry of Education, Youth and Sport (MoEYS) should accelerate *the administrative and general management reform for quality citizenship, by ensuring community involvement in school management and implementing School-Based Management (SBM)* for enhancing quality citizenship.

A sub-strategy of ensuring community involvement in school management for quality citizenship should be implemented immediately. The school principals should establish School Management Committee (SMC) and encourage parents and local authorities and community members to participate in school oversight and management. This is based on the research findings which indicate that ensuring community involvement in school management has the highest PNI modified.

Local authorities, communities should get more involved in school management to exert pressure on school directors and teachers to adopt high-quality, academic-oriented changes. A system should be put in place in the form of School Management

Committee, Classroom Management Committee or Meeting the Parents Event to create formal and regular contact between parents and school. This participation will create a shorter route to accountability at the school level.

Having made progress on top-down reforms, such as increasing teachers' salaries, and curriculum and textbook review, the MoEYS should take make further efforts to coordinate between top-down and bottom-up reform programs by immediately *implementing School-Based Management (SBM)* in order to move education reforms to the school level, especially inside the classrooms. These recommendations are based on the research findings which indicate that administrative and general management reform for quality citizenship has the second highest PNI modified.

Therefore, the Department of Primary Education (DPE) and the Department of Secondary Education (DSE) of the MoEYS and Provincial Office of Education (POE) should implement immediately *the sub-strategy of SBM for quality citizenship*. Moving education reform to the level of schools and classrooms will create necessary conditions for improvement in instructional practice and performance and improve the environment for continuous learning. As Fullan (2007) pointed out, education reforms should be resulting in changes at the school level, with the use of new instructional resources, teaching aids and technologies, the implementation by the teachers of new teaching methods, such as active learning activities and possible of alteration of pedagogical theories and assumptions. While increasing financial autonomy and accountability of schools, MoEYS should invest more on capacity building at the school level, with in-service training for school principals and teachers.

5.3.1.3 The Ministry of Education, Youth and Sport (MoEYS) should take actions to improve further the implementation of *academic management reform for quality citizenship,* by focusing on conducting regular student assessment and improving teaching and learning process, especially teaching methods.

To shift the paradigm from schooling to learning, the MoEYS should conduct regular student assessments for quality citizenship. The MoEYS should create a national assessment framework, consisting of national examination systems at grade 9 and grade 12, assessments at grades 3, 6, 8 and 11, Early Grade Reading Assessment

(EGRA) and Early Grade Mathematic Assessment (EGMA) at grades 1, 2 and 3, as well as classroom assessments and school-based assessments. To ensure that students learn at school, assessments at grades 3, 6, 8 and 11 on Khmer, Math and Physics should be further strengthened by integrating findings from the national assessment into education policies, teacher training. Students should be given opportunities to participate in regional and international tests, such as International Mathematics Olympiad (IMO), International Physics Olympiad (IPhO), while capacity building is needed for Cambodia to participate in the PISA and TIMMS. National examination systems should be further strengthened, especially by improving guidelines, marking standards and monitoring system.

School principals should provide regularly evaluation reports on school performance against school effectiveness standards and compile data and prepare an annual progress report on achievement of school outcomes indicators and targets, while the results of student learning should be provided to key stakeholders in the school report card. School Management Committee should review and approve the school performance evaluation, and endorses the annual progress report on achievement of school outcomes indicators and targets related to student's learning outcomes. A mechanism of mutual accountability should be established between schools and the community.

Teachers play a very important role in improving student learning outcome. While tests and examinations form part and parcels of an assessment system, teachers should use a holistic approach to assessment of both knowledge and soft skills. This requires much more complicated system of assessment of transversal competencies (TVC). Teachers provides continuous timely support to slow learners and use new teaching methods to make learning more interesting.

Therefore, **a sub-strategy of improving teaching methods** should be implemented immediately. The MoEYS should adopt Guidelines on Teaching Methods and Classroom Management, aimed at producing a workforce that can think critically, solve problems, and work collaboratively. A mentoring program to support new teachers to improve classroom practice. Attention should be given to implementing Reading Standards and Methods for Grades 1, 2 and 3 and Reading Methods in library.

At the secondary level, new learning approaches, such as project-based learning, student-centered, inquiry-based learning methodologies, should be introduced. ICT should be integrated into Teaching Methods.

The new teaching methods, such as active learning, constructive learning, problem-based learning, discovery learning, and inquiry-based learning approaches, should be integrated into teacher training curriculum at the National Institute of Education (NIE), the Teacher Education Colleges (TEC) and the Regional Teacher Training Centers to train secondary school teachers, while Early Grade Reading Methods and the new methods of teaching mathematics to early grade students should be integrated into the Provincial Teacher Training Center (PTTC) for primary school teachers. Including training on new teaching methods into the programs for Continuous Professional Development (CPD) for teachers is the most cost-efficient way of delivery.

Teachers should apply new teaching methods, especially active learning, as well as creating Professional Learning Communities (PLCs) to share best practices in teaching. The teachers should move away from 'passive learning' models in which students are thought of as 'receptacles' of knowledge to a new approach or active learning, in which students are active 'constructors' of new knowledge. Thus, the teachers should focus on teaching thinking skills at the higher end of the Bloom taxonomy, including analysis, synthesis, and evaluation, stimulates students to exchange ideas through discussions, encourage them to synthesize unique ideas. The new teaching methods should include the use of information technology (e-mail and the Internet) to promote new learning approaches to promote collaborate learning (e.g. through networking), to construct and synthesize new information (e.g. through PowerPoint presentations), solve problems (e.g. through data processing programs that can find relationships, sort data etc.) and provide a means for dialogue, discussion, and debate interactivity that leads to social construction. Question & Answer activities should also be introduced to help students learning by reflecting on their previous experience and new context to find or 'construct' a new idea that solves different real-life problems. The teachers should make sure that students are able to manipulate concepts, to think critically, solving problems and learn collaboratively. To improve communication skills students should be encouraged to prepare PowerPoint

Presentations in their groups as useful social channel for students to work together in teams to produce a creative product to share with the class.

5.3.1.4 As teachers and school principals play a very important role in improving learning outcomes, the MoEYS accelerate *the human resources management reform for quality citizenship,* by focusing on improving the selection and PRESET training of teachers and school principals, ensuring that adequate teachers are deployed in the disadvantaged areas, providing INSET training and retaining the best and experienced teachers and school principals in the education sector.

The MoEYS should accelerate the implementation of the Teacher Policy Action Plan (TPAP) by: (i) improving the selection of teachers and school principals; (ii) linking promotion to continuous professional development (systematic INSET/ONSET) and performance assessment; (iii) creating career development by establishing a Teacher Career Pathway (TCP), based on a clear career structure; (iv) strengthening teacher monitoring and evaluation systems. The MoEYS should improve the selection and training of teachers, by putting in place a system of evaluation and selection of school principals, teachers and school inspectors, based on their personal traits and competence in instructional practice and leadership. Attention should be paid to teacher deployment by increasing "Living Allowances" for hardship and disadvantage areas to the level consistent with the living costs. Communications within the MoEYS's technical departments, between the MoEYS and teacher training providers, and especially between the MoEYS and schools should be further improved. Therefore, the sub-strategies of providing INSET training to teachers, focusing on teaching methods and mentoring programs, and of increasing teacher PRESET qualifications should be implemented immediately. Moreover, a Teacher Career Pathway (TCP) should be developed and piloted to retain the best and most experienced teachers in the education system. Teachers should be assessed, on a regular basis, to identify good teachers, good school and education sector managers and good education experts to enable the teachers to develop a life-long career path and remain in the education sector.

The School directors should focus on improving school management, especially by paying more attention to teaching and learning management. School directors should

prioritize interventions by focusing on the most efficient ones, such as providing teachers with opportunities for INSET training, focusing on teaching methods and mentoring. Should culture should be reshaped to create common values and goals of improving instruction. Thus, School directors should work with teachers and communities on ways to implement School Development Plan and to implement teacher performance evaluation.

5.3.1.5 From the focus group discussion, as mentioned earlier, implementing the above strategies requires the development of a detailed implementation strategy: (1) prioritization of sub-strategies and procedures; (2) development of a well-sequencing reform program; (3) investment in implementation capacity; (4) communication of strategies, sub-strategies and procedures to different level of education management; (5) evaluation and assessment of the educational reform programs; and (6) sustainability of the reform. The focus group pointed out that implementing educational reform at the school level should start with identifying prerequisite requirements and providing INSET training for school principals and initiating PRESET education for school principals. Providing school principals with leadership and innovative management training is critical to ensuring successful implementation of the reform programs. There is a need for clarifying the roles and responsibilities of all key stakeholders at all level. It was pointed out that school principals should have a clear terms of reference (TOR) and should be given both financial and human resources to fullfill them. Schools should be assisted by the District Office of Education (DOE), whose mandate should be updated and capacity should be strengthened. There is an urgent need to ensure that education policies are implemented at the school level by implementing School-Based Management (SBM), consisting of school financial management reform, school administrative management reform, school academic management reform and school personnel management reform. The four components of the school management reform should be linked to the school standards (nine standards) adopted by the MoEYS. The focus group also mentioned that in the Cambodian context, school reform should start with academic management reform. The improvement of the learning outcomes should encourage school principals and teachers to embark on administrative and general management reform, with the development of school policy, involvement of parents, community members and the local authority in

school management. This will allow schools to mobilize additional resources and create conditions for school financial management reform. Last but not least, school principals and teachers should be given incentives to build capacity for reform by implementing personnel management reform.

5.3.2 Recommendations for future research

5.3.2.1 The future research should further explore the implementation of the education management reform strategies at the school level. The coordination of top-down and bottom-up education reforms is crucial for successful implementation of the reform program. However, this reform is complex. Strategies, sub-strategies and procedures that cover both national level and school-level reforms are sometime confusing. Therefore, there is a need to develop school improvement strategies, sub-strategies and procedures, based on the proposed education management reform strategies, in order to bring the reform programs to the school level and send a clear and consistent message to all stakeholders of the reform.

Based on the research findings, education reforms are considered as successful when they result in changes in classroom practices, which will lead to better learning outcomes of the students, their knowledge, hard and soft skills, attitude and commitment to quality citizenship. Therefore, reforms should focus on school for the delivery of education; teachers and school administrators should be held accountable for learning outcomes; evaluation of school performance should be accompanied by a system of rewards and penalties (Bruns et al., 2011; Elmore, 2004). The future research should have the objectives to establish *a Framework for School Improvement, focusing on different aspects of education management, such as school financial management, school administrative management, teaching and learning process and human resource development and management at the school level.*

5.3.2.2 The future research should apply more quantitative approaches to study the current and desirable states, as well as priority need of education management reform for enhancing quality citizenship in Cambodia.

Based on the research findings, responsibility for their actions and respect for diversity and human values have the highest mean values, while participation in

political activities and recognition of global issues have the highest PNI modified. The researcher want to use different qualitative approaches to study the current and desirable states, and the priority need of education management reform for enhancing quality citizenship in Cambodia.

5.3.2.3 The future research should study the technology and socio-cultural aspects of the external environment for supporting education management reform for enhancing quality citizenship in Cambodia.

Based on the research findings, the technology aspect (PNI modified = 0.386) and socio-cultural aspect (PNI modified = 0.381) are considered as the threats to education management reform for enhancing the quality citizenship in Cambodia. Threfore, there is a need to study the two aspects in more details to mitigate the risks to the reform program.

5.3.2.4 The future research should further explore the most efficient ways to implement education management reform for enhancing quality citizenship in Cambodia.

Based on the research findings, knowledge and skills are ranked high in the desirable states of all aspects of education management reform for enhancing the quality citizenship in Cambodia. We know that with the rapid development of technologies, the concepts of knowledge and skills have changed from knowing many things to mastering a set of competencies. The results of previous research indicate that soft skills are very much valued by employers. Soft skills and the ability to learn new things have become more and more important for the young people to thrive in their career. Therefore, soft skills and the ability for lifelong learning have become top priorities for education agendas. New teaching methods should encourage students to create not just to apply the existing knowledge by making efforts to create new words, write essays, novels and poems, use the existing knowledge to improve daily life and society (for example by creating new digital applications to solve a myriad of social and economic problems or create new business models for job creation. However, debates on how to teach soft skills continues to be contentious among educators. Furthermore, there are some limitations in the research on ways to incorporate soft skills into the curriculum across disciplines. The focus group also requires that tools

for Quality Citizenship evaluation and assessment should be developed to ensure monitoring of strategy implementation.

5.3.2.5 The future research should further *explore the process of teaching and learning in the age of digital revolution*. The concept of knowledge has changed. Before the age of Google, society valued intellectuals who had a wide range of knowledge. Now, with information is easily available at a stroke of a finger, the ability to choose correct information from among a plethora of sources and to make good judgement is crucial. Moving from passive learning to active learning requires students to be able to ask questions, to critically analyse the existing knowledge and to be confident to create new knowledge. What was considered as incorrect knowledge can be right in the future. Collaboration is needed for students to take proactive steps to challenge old knowledge and create new knowledge through a deeper learning. Students should be able to integrate different subjects into a body of new knowledge to solve human problems by using what they know to apply to real-life situations. In short, students should be able to question what knowledge is.

5.3.2.6 The future research might study the development of implementation strategies for education management reform for enhancing the quality citizenship in Cambodia. To ensure successful implementation of the reform program, the focus group recommends that future research should focus on implementation strategy, capacity building and financing arrangements for the education management reform to enhance the quality citizenship in Cambodia.

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APPENDIX

Appendix A
Research Tools

1) Questionnaire
"Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia"

Introduction

1. This questionnaire is used to collect data for the research study entitled: "Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia".

2. The questionnaire is prepared to meet the requirements for needs assessment study, focusing on the study of the current and the desirable states of education management reform strategies for enhancing the quality citizenship in Cambodia.

3. This questionnaire is divided into 3 parts:

Part 1: General information of the respondents using check list which includes gender, age, education level, experience and position.

Part 2: Current and the desirable state of the education management reform for quality citizenship in Cambodia, with a 5 level rating scale.

Part 3: Other suggestions and recommendations.

4. The data obtained from the questionnaire is used to analyse the overall aspects of education management reform strategies and in no way shall it impact the respondents or their position.

Please kindly answer all the items and return the questionnaire with the attached envelope.

Thank you for your participation and cooperation.

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QUESTIONNAIRE
Current and Desirable State of the Education Management Reform for
Enhancing the Quality Citizenship in Cambodia

Section 1: Questions about respondents' personal details
Instruction: please tick (✓) in the box ☐that is true for you and fill in the space as required:
1. Current status: ☐ School administrator
        ☐ Teacher

                ☐ Others (specify)
....
2. Gender: ☐ Male   ☐ Female
3. Age: ☐ Under 30   ☐ 30-39 years old   ☐ 40-49 years old
                ☐ Older than 50 years
4. Highest Educational Qualification: ☐ Doctoral degree ☐ Master degree ☐ Bachelor degree

                ☐ Associate degree   ☐ Others (specify)

....
5. Professional Experience/ working in education sector
        ☐ Less than 5 years   ☐ 5-10 years   ☐ 11-15 years
                ☐ 16-20 years   ☐ More than 20 years

Section 2: Questions about current and desirable states of education management reform for enhancing the quality citizenship in Cambodia

Instruction: please tick (✓) in the box ☐ from 1 to 5 that most closely matches the current states of education management reforms for enhancing the quality citizenship in Cambodia.

 1 refers to   the reality that very less suitable to current state of education reform
 2 refers to   the reality that less suitable to current state of education reform
 3 refers to   the reality that moderately suitable to current state of education reform
 4 refers to   the reality that very suitable to current state of education reform
 5 refers to   the reality that strongly suitable to current state of education reform

Please tick (✓) in the box ☐ from 1 to 5 that most closely matches the desirable level of education management reforms for enhancing the quality citizenship in Cambodia.

 1 refers to   the reality that very less suitable to desirable state of education reform
 2 refers to   the reality that less suitable to desirable state of education reform
 3 refers to   the reality that moderately suitable to desirable state of education reform
 4 refers to   the reality that very suitable to desirable state of education reform
 5 refers to   the reality that strongly suitable to desirable state of education reform

The Education Management Reform for Enhancing the Quality Citizenship in Cambodia		Current states					Desirable states				
Administrative and general management reform: Education Policy and Strategic Plan											
1. In what level that education policy and the Education Strategic Plan developed by MoEYS enhance the quality citizen in Cambodia as in the following items?											
		Current states					Desirable states				
1.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
1.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
1.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
1.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
1.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
1.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
1.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
1.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
1.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											
Administrative and general management reform: School-Based Management											
2. In what level that School-Based Management enhances the quality citizen in Cambodia as in the following items?											
		Current states					Desirable states				
2.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
2.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
2.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
2.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5

The Education Management Reform for Enhancing the Quality Citizenship in Cambodia		Current states					Desirable states				
2.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
2.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
2.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
2.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
2.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

Administrative and general management reform: Community Involvement in School Management

3. In what level that the increasing of Community's involvement in school management enhances quality citizen in Cambodia as in the followings items?

		Current states					Desirable states				
3.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
3.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
3.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
3.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
3.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
3.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
3.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
3.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
3.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

Academic management reform: Education Curriculum and Textbooks

The Education Management Reform for Enhancing the Quality Citizenship in Cambodia		Current states					Desirable states				
4. In what level that MoEYS integrates Good Citizenship Education into school curriculum and textbooks enhances the quality citizen in Cambodia as in the followings items?											
		Current states					Desirable states				
4.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
4.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
4.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
4.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
4.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
4.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
4.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
4.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
4.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											
Academic management reform: Teaching and Learning Process											
5. In what level that the integration of Good Citizenship Education in the teaching and learning process enhances the quality citizen in Cambodia as in the following items?											
		Current states					Desirable states				
5.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
5.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
5.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
5.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5

The Education Management Reform for Enhancing the Quality Citizenship in Cambodia		Current states					Desirable states				
5.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
5.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
5.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
5.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
5.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

Academic management reform: Student Assessment and School Inspection

6. In what level that regular student assessment and school inspection enhances the quality citizen in Cambodia as in the following items?

		Current states					Desirable states				
6.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
6.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
6.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
6.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
6.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
6.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
6.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
6.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
6.9	Students' responsibility for own actions						1	2	3	4	5

Comments and suggestions:

Education financial management reform: Education financial allocations linking budget to education policies

The Education Management Reform for Enhancing the Quality Citizenship in Cambodia		Current states					Desirable states				
7. In what level that MoEYS increased budget allocations linking budget to education policies enhance the quality citizen in Cambodia as in the following items?											
		Current states					Desirable states				
7.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
7.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
7.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
7.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
7.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
7.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
7.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
7.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
7.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											
Education financial management reform: Financial Autonomy and Accountability of Schools											
8. In what level that the increasing of schools' financial autonomy and accountability enhances the quality citizen in Cambodia as in the following items?											
		Current states					Desirable states				
8.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
8.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
8.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
8.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5

The Education Management Reform for Enhancing the Quality Citizenship in Cambodia		Current states					Desirable states				
8.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
8.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
8.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
8.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
8.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

Education financial management reform: Education Budget Audit

9. In what level that the implementation of budget audit at school enhances the quality citizen in Cambodia as in the following items?

		Current states					Desirable states				
9.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
9.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
9.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
9.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
9.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
9.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
9.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
9.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
9.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

The Education Management Reform for Enhancing the Quality Citizenship in Cambodia	Current states					Desirable states				
Human Resources Management Reform: PRESET										
10. In what level that the increasing of PRESET teacher qualifications from 12+2 to 12+4 enhances the quality citizen in Cambodia as in the following items?										

		Current states					Desirable states				
10.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
10.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
10.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
10.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
10.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
10.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
10.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
10.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
10.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

Human Resources Management Reform: INSET
11. In what level that INSET teacher training, focusing on teaching methods and mentoring programs, enhances the quality citizen in Cambodia as in the following items?

		Current states					Desirable states				
11.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
11.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
11.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
11.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5

The Education Management Reform for Enhancing the Quality Citizenship in Cambodia		Current states					Desirable states				
11.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
11.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
11.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
11.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
11.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

Human Resources Management Reform: Teacher Performance Assessment

12. In what level that the implementation by schools of teacher performance assessment enhances the quality citizen in Cambodia as in the following items?

		Current states					Desirable states				
12.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
12.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
12.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
12.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
12.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
12.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
12.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
12.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
12.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

Section 3: Questions about the effect of external environment (PEST) on education management reform for the quality citizenship in Cambodia

POLITICS (Political Situation and National policy)											
1. Politics enabled the Ministry of Education, Youth and Sport in setting up education policy and Education Strategic Plan to enhance the quality citizenship as follows:											
		Current states					Desirable states				
1.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
1.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
1.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
1.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
1.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
1.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
1.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
1.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
1.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											
2. Politics enabled the Ministry of Education, Youth and Sport in introducing School-Based Management to enhance the quality citizenship as follows:											
		Current states					Desirable states				
2.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
2.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
2.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
2.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5

2.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
2.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
2.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
2.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
2.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

3. Politics enabled the community to get involved in school management to enhance the quality citizenship as follows:

		Current states					Desirable states				
3.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
3.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
3.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
3.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
3.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
3.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
3.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
3.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
3.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

4. Politics enabled the Ministry of Education, Youth and Sport to integrate Good Citizenship Education into school curriculum and textbooks to enhance the quality citizenship as follows:

		Current states					Desirable states				
4.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5

4.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
4.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
4.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
4.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
4.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
4.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
4.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
4.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

5. Politics enabled the school to introduce Good Citizenship in teaching and learning to enhance the quality citizenship as follows:

		Current states					Desirable states				
5.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
5.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
5.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
5.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
5.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
5.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
5.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
5.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
5.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

6. Politics enabled the Ministry of Education, Youth and Sport and schools to conduct regular student assessment and school inspection to enhance the quality citizenship as follows:

		Current states					Desirable states				
6.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
6.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
6.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
6.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
6.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
6.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
6.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
6.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
6.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

7. Politics enabled the Royal Government of Cambodia to increase budget allocations linking budget to education policy to enhance the quality citizenship as follows:

		Current states					Desirable states				
7.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
7.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
7.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
7.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
7.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5

7.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
7.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
7.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
7.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

8. Politics enabled schools to increase financial autonomy and accountability to enhance the quality citizenship as follows:

		Current states					Desirable states				
8.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
8.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
8.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
8.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
8.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
8.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
8.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
8.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
8.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

9. Politics enabled the Ministry of Education, Youth and Sports to implement budget audit to enhance the quality citizenship as follows:

		Current states					Desirable states				
9.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
9.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5

9.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
9.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
9.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
9.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
9.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
9.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
9.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

10. Politics enabled the Ministry of Education, Youth and Sports to increase teacher PRESET qualifications from 12+2 to 12+4 to enhance the quality citizenship as follows:

		Current states					Desirable states				
10.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
10.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
10.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
10.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
10.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
10.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
10.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
10.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
10.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

11. Politics enabled the Ministry of Education, Youth and Sports to introduce teacher INSET training, focusing on teaching methods and mentoring programs, to enhance the quality citizenship as follows:

		Current states					Desirable states				
11.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
11.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
11.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
11.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
11.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
11.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
11.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
11.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
11.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

12. Politics enabled the schools to introduce teacher performance assessment to enhance the quality citizenship as follows:

		Current states					Desirable states				
12.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
12.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
12.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
12.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
12.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
12.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5

12.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
12.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
12.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

ECONOMY (such as as the increasing of GDP, education budget, teacher salary, the income of student parents etc.)

13. Economy enabled the Ministry of Education, Youth and Sport in setting up education policy and Education Strategic Plan to enhance the quality citizenship as follows:

		Current states					Desirable states				
13.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
13.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
13.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
13.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
13.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
13.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
13.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
13.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
13.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

14. Economy enabled the Ministry of Education, Youth and Sport in introducing School-Based Management to enhance the quality citizenship as follows:

		Current states					Desirable states				
14.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5

14.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
14.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
14.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
14.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
14.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
14.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
14.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
14.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

15. Economy enabled the community to get involved in school management to enhance the quality citizenship as follows:

		Current states					Desirable states				
15.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
15.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
15.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
15.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
15.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
15.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
15.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
15.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
15.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

16. Economy enabled the Ministry of Education, Youth and Sport to integrate Good Citizenship Education into school curriculum and textbooks to enhance the quality citizenship as follows:

		Current states					Desirable states				
16.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
16.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
16.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
16.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
16.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
16.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
16.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
16.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
16.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

17. Economy enabled the school to introduce Good Citizenship in teaching and learning to enhance the quality citizenship as follows:

		Current states					Desirable states				
17.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
17.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
17.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
17.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
17.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
17.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
17.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
17.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
17.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

18. Economy enabled the Ministry of Education, Youth and Sport and schools to conduct regular student assessment and school inspection to enhance the quality citizenship as follows:

		Current states					Desirable states				
18.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
18.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
18.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
18.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
18.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
18.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
18.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
18.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
18.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

19. Economy enabled the Royal Government of Cambodia to increase budget allocations linking budget to education policy to enhance the quality citizenship as follows:

		Current states					Desirable states				
19.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
19.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
19.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
19.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
19.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5

19.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
19.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
19.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
19.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

20. Economy enabled schools to increase financial autonomy and accountability to enhance the quality citizenship as follows:

		Current states					Desirable states				
20.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
20.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
20.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
20.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
20.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
20.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
20.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
20.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
20.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

21. Economy enabled the Ministry of Education, Youth and Sports to implement budget audit to enhance the quality citizenship as follows:

		Current states					Desirable states				
21.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
21.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5

21.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
21.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
21.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
21.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
21.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
21.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
21.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											

22. Economy enabled the Ministry of Education, Youth and Sports to increase teacher PRESET qualifications from 12+2 to 12+4 to enhance the quality citizenship as follows:

		Current states					Desirable states				
22.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
22.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
22.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
22.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
22.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
22.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
22.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
22.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
22.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											

23. Economy enabled the Ministry of Education, Youth and Sports to introduce teacher INSET training, focusing on teaching methods and mentoring programs, to enhance the quality citizenship as follows:

		Current states					Desirable states				

23.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
23.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
23.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
23.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
23.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
23.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
23.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
23.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
23.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

24. Economy enabled the schools to introduce teacher performance assessment to enhance the quality citizenship as follows:

		Current states					Desirable states				
24.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
24.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
24.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
24.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
24.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
24.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
24.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
24.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
24.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

SOCIETY (such as the way of life of Cambodian people, family relationship, social security, parents involvement in school management, school context change and local culture of shool)

25. Society enabled the Ministry of Education, Youth and Sport in setting up education policy and Education Strategic Plan to enhance the quality citizenship as follows:

		Current states					Desirable states				
25.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
25.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
25.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
25.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
25.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
25.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
25.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
25.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
25.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

26. Society enabled the Ministry of Education, Youth and Sport in introducing School-Based Management to enhance the quality citizenship as follows:

		Current states					Desirable states				
26.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
26.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
26.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
26.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
26.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5

26.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
26.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
26.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
26.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

27. Society enabled the community to get involved in school management to enhance the quality citizenship as follows:

		Current states					Desirable states				
27.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
27.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
27.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
27.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
27.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
27.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
27.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
27.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
27.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

28. Society enabled the Ministry of Education, Youth and Sport to integrate Good Citizenship Education into school curriculum and textbooks to enhance the quality citizenship as follows:

		Current states					Desirable states				
28.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5

28.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
28.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
28.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
28.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
28.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
28.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
28.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
28.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											

29. Society enabled the school to introduce Good Citizenship in teaching and learning to enhance the quality citizenship as follows:

		Current states					Desirable states				
29.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
29.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
29.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
29.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
29.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
29.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
29.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
29.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
29.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											

30. Society enabled the Ministry of Education, Youth and Sport and schools to conduct regular student assessment and school inspection to enhance the quality citizenship as follows:											
		Current states					Desirable states				
30.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
30.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
30.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
30.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
30.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
30.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
30.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
30.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
30.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

31. Society enabled the Royal Government of Cambodia to increase budget allocations linking budget to education policy to enhance the quality citizenship as follows:											
		Current states					Desirable states				
31.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
31.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
31.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
31.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
31.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
31.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5

31.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
31.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
31.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

32. Society enabled schools to increase financial autonomy and accountability to enhance the quality citizenship as follows:

		Current states					Desirable states				
32.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
32.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
32.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
32.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
32.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
32.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
32.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
32.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
32.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

33. Society enabled the Ministry of Education, Youth and Sports to implement budget audit to enhance the quality citizenship as follows:

		Current states					Desirable states				
33.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
33.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
33.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5

33.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
33.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
33.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
33.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
33.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
33.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

34. Society enabled the Ministry of Education, Youth and Sports to increase teacher PRESET qualifications from 12+2 to 12+4 to enhance the quality citizenship as follows:

		Current states					Desirable states				
34.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
34.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
34.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
34.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
34.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
34.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
34.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
34.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
34.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

35. Society enabled the Ministry of Education, Youth and Sports to introduce teacher INSET training, focusing on teaching methods and mentoring programs, to enhance the quality citizenship as follows:

		Current states	Desirable states

35.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
35.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
35.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
35.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
35.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
35.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
35.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
35.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
35.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

36. Society enabled the schools to introduce teacher performance assessment to enhance the quality citizenship as follows:

		Current states					Desirable states				
36.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
36.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
36.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
36.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
36.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
36.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
36.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
36.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
36.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

TECHNOLOGY (the rapidedly changing technology in educational material and appliances, the development in e-books, online database, etc.)										
37. Technology enabled the Ministry of Education, Youth and Sport in setting up education policy and Education Strategic Plan to enhance the quality citizenship as follows:										
		Current states					Desirable states			
37.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
37.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
37.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
37.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
37.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
37.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
37.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
37.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
37.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:										
38. Technology enabled the Ministry of Education, Youth and Sport in introducing School-Based Management to enhance the quality citizenship as follows:										
		Current states					Desirable states			
38.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
38.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
38.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
38.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5

38.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
38.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
38.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
38.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
38.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

39. Technology enabled the community to get involved in school management to enhance the quality citizenship as follows:

		Current states					Desirable states				
39.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
39.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
39.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
39.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
39.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
39.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
39.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
39.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
39.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

40. Technology enabled the Ministry of Education, Youth and Sport to integrate Good Citizenship Education into school curriculum and textbooks to enhance the quality citizenship as follows:

		Current states					Desirable states				
40.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5

40.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
40.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
40.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
40.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
40.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
40.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
40.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
40.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											

41. Technology enabled the school to introduce Good Citizenship in teaching and learning to enhance the quality citizenship as follows:

		Current states					Desirable states				
41.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
41.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
41.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
41.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
41.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
41.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
41.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
41.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
41.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5
Comments and suggestions:											

42. Technology enabled the Ministry of Education, Youth and Sport and schools to conduct regular student assessment and school inspection to enhance the quality citizenship as follows:												
		Current states					Desirable states					
42.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5	
42.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5	
42.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5	
42.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5	
42.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5	
42.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5	
42.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5	
42.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5	
42.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5	

Comments and suggestions:

43. Technology enabled the Royal Government of Cambodia to increase budget allocations linking budegt to education policy to enhance the quality citizenship as follows:												
		Current states					Desirable states					
43.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5	
43.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5	
43.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5	
43.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5	
43.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5	
43.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5	

43.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
43.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
43.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

44. Technology enabled schools to increase financial autonomy and accountability to enhance the quality citizenship as follows:

		Current states					Desirable states				
44.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
44.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
44.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
44.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
44.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
44.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
44.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
44.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
44.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

45. Technology enabled the Ministry of Education, Youth and Sports to implement budget audit to enhance the quality citizenship as follows:

		Current states					Desirable states				
45.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
45.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
45.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5

45.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
45.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
45.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
45.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
45.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
45.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

46. Technology enabled the Ministry of Education, Youth and Sports to increase teacher PRESET qualifications from 12+2 to 12+4 to enhance the quality citizenship as follows:

		Current states					Desirable states				
46.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
46.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
46.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
46.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
46.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
46.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
46.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
46.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
46.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

47. Technology enabled the Ministry of Education, Youth and Sports to introduce teacher INSET training, focusing on teaching methods and mentoring programs, to enhance the quality citizenship as follows:

		Current states	Desirable states

47.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
47.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
47.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
47.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
47.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
47.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
47.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
47.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
47.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

48. Technology enabled the schools to introduce teacher performance assessment to enhance the quality citizenship as follows:

		Current states					Desirable states				
48.1	Students' knowledge in subject matters and hard skills, including foreign language and ICT	1	2	3	4	5	1	2	3	4	5
48.2	Students' critical thinking, problem solving, communication skills and life skills	1	2	3	4	5	1	2	3	4	5
48.3	Students' respect for the law and social order	1	2	3	4	5	1	2	3	4	5
48.4	Students' commitment to community and sustainable development	1	2	3	4	5	1	2	3	4	5
48.5	Students' participation in political discussions and elections.	1	2	3	4	5	1	2	3	4	5
48.6	Students' recognition of global issues, including global warming and conflicts	1	2	3	4	5	1	2	3	4	5
48.7	Students' respect diversity and human values	1	2	3	4	5	1	2	3	4	5
48.8	Students' willingness to make the world an equitable and sustainable place	1	2	3	4	5	1	2	3	4	5
48.9	Students' responsibility for own actions	1	2	3	4	5	1	2	3	4	5

Comments and suggestions:

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More Comments and Suggestions

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Thank you for answering the questions!

2) Examination of the suitability and feasibility of the draft strategies, sub-strategies and procedures of education management reform strategies for enhancing the Quality Citizenship in Cambodia

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
1. Education financial management reform strategy for quality citizenship						
1.1 Increasing financial autonomy and accountability of schools for quality citizenship						
Increase support of political and government policy and technology and enhance economy and socio-culture to develop sub-strategy to increase financial autonomy and accountability of schools to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.						
1. Ministry of Education, Youth and Sport Prepares guidelines on financial autonomy and accountability of schools Adopt Manual Related to School Improvement Fund Financial Management Strengthen and expand the implementation of Program Budgeting and budget supervision Strengthen the implementation of new accounting, recording and reporting system Strengthen the implementation of mechanism and tools for enhancing the accountability and responsibility Improve budget transparency						
2. The Department of Finance (DOF) to provide training for school directors on financial management system for the implementation of School Improvement Funds for public educational institutions by increasing: (i) autonomy in the management of public institutions; (ii) accountability on budget management; and (iii) responsiveness to student achievement						
3. The Provincial Office of Education, Youth and Sport (POE) approves The request for disbursement of School						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
improvement funds submitted by the District Office of Education, Youth and Sport (DOE). The POE reviews and approves the school's financial statements, consolidated and submitted by the DOE.						
4. The District Office of Education, Youth and Sport (DOE) approve the School Development Strategic Plan and School Annual Operational Plan.						
5. School board/ School Management Committee School board/School Management Committee (SMC) will be established to adopt regulations related to role and responsibilities of school managers, parents and community members on school management The SMC approves School Development Strategic Plan, School Operational Plan and submit request for disbursement of Annual School Improvement Fund and is responsible for overseeing the implementation of the School Improvement Fund, executed by schools. Schools prepare policy on financial management, personnel management, teacher evaluation, hiring and dismissal, M&E. Introduce the Result-based School Management System in accordance with good governance principles, ensuring efficiency and effectiveness, and achieving progress as proof of student achievement School to provide key roles to teachers, community, authorities, parents and students in participating in the planning and implementing process of school Development Plan						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
and Annual Operational Plan						
1.2. Conducting education budget audit for quality citizenship						
Increase support of political and government policy and enhance economy and technology to develop strategy to conduct education budget audit to promote quality national citizenship, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.						
1. Ministry of Education, Youth and Sport Adopts an Action Plan on School Financial Audit; Prepares and adopts a Master Plan on Internal Audit; Strengthens planning and monitoring the use of the education budget via the expansion of a computerized financial management information system (FMIS) at all levels; Develops the capacity of inspectors and school principals for the internal and external inspection systems;						
2. The Department of Internal Audit (DIA) Conducts regular audit of schools to ensure that budgetary resources are used for improving students' learning outcomes Adopts standard report on income and expenditure as well as school's financial statements and school annual budget implementation. Ensures that funds are used to finance the following core activities and sub-activities: (1) Support to process: Administrative process, Capacity strengthening, Equipment and furniture, Repair and maintenance, Water, electricity, telephone services and Internet; and (2) Improve the quality of education: Equitable access to education; Teaching and learning materials and producing didactic						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
materials; Lab materials and experiments; Materials of library, books and reading materials; Support to vulnerable students, remedial class and prevent drop out; Improve the environment and leisure space; Life skills, agricultural, workshops and investment; Health, hygiene, physical education, art and rewards; Child and youth work; Construction.						
3. The Provincial Office of Education, Youth and Sport (POE) The POE develops a monitoring plan to monitor the progress of educational services at each school and ensure effectiveness The POE provides training courses to build the capacity of the District Training and Monitoring Teams (DTMT) to conduct internal audit;						
4. The District Office of Education, Youth and Sport (DOE) prepares a monitoring plan to monitor the progress of educational services in each school and ensure the efficiency.						
5. Schools The school principals use School Operational Budget (SOB) for teachers' continuous professional development and for improving teaching methods, designed to promote the respect for diversity and human values Strengthen financial management skills, develop and maintain a clear financial management system Promote accountability for management and monitoring of resource utilization, transparency, security, reliability and transparency.						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Creates a Transparency letterbox to get information or other complaints from stakeholders Strengthens internal inspection system, based on self-evaluation of schools and regular supervision School principal improves school performance with external findings and addresses audit findings;						
6. Teachers provide feedbacks to school directors on school management and ensure that the School Improvement Fund is used for teaching and learning process to improve learning outcomes.						
1.3 Linking budget to education policies for quality citizenship						
Increase support of the economy and technology and enhance the socio-culture to develop sub-strategy to of linking budget to education politicies to promote both quality national and global citizenship.						
1. Ministry of Education, Youth and Sport Adopts policy and guidelines on financial autonomy and accountability of schools MEF should introduce financial allocations linking budget to education policies and performance Introduce Result-Based Management by linking inputs to output and outcome indicators, as stipulated in the ESP and education policies and ensure sound Monitoring and Evaluation (M&E) Allocate more resources to schools						
2. Ministry of Economy and Finance 2.1. Uses Education Strategic Plan (ESP) and Annual Operational Plan (AOP) to allocate budgetary resources by sub-sector.						
3. The Provincial Department of Education (POE) consolidates School Development Strategic Plan						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
and ensure that financial resources are made available for the achievement of core indicators.						
4. Schools/Teachers The school principals and teachers should strive to educate the students to respect school regulations, timetables and teach the importance of the respect of law and social order as personal management techniques. School to introduce budget planning by determining the amount of funds needed to carry out School Development Plan according to specific timetable. The School Management Committee to prepare reports on School Development Plan implementation by monitoring and evaluating the actual implementation of the activities. School to use the School Improvement Fund for activities, such as: Increasing the use of materials and a better learning environment through material and equipment and the support of teaching and learning materials and teaching activities. Strengthening the ability of teachers. Assisting vulnerable children, slow-paced students and students subject to drop out Increase enrolment rates, graduation rates, transition rate and completion rate in every level Provide health care services to students at all levels (health care, food safety and other risks).						
2. Administrative and general management reform strategy for quality citizenship						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
2.1 Ensuring community involvement in school management for quality citizenship						
Increase support of political and government policy and enhance economy, socio-culture and technology to become an opportunity that contributes to the strength of ensuring community involvement in the school management to promote quality national citizenhip, focusing on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.						
1. Ministry of Education, Youth and Sport Adopts an Operational Manual on SBM that encourage parents, community members and local authority to establish School Management Committee Organizes workshops and training on SBM for the Provincial Office of Education (POE), Teacher Education College (TEC), Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC)						
2. The Provincial Office of Education (POE) The POE provides training to the District Office of Education (DOE) on SBM, focusing on the modalities and responsibilities of parents, local authority and community members to participate in school management						
3. Schools School principal initiates the establishment of School Management Committee and encourage community to involve in school management; School principal creates a climate in the school system which fosters openness, trust and collaboration; School principal organizes regular meeting with parents and conducts home visit.						
4. The school management committee (SMC) The School Management Committee prepares and adopts School Development Plan and Classroom						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Development Plan with the participation of all key stakeholders, including Student Council; The SMC reviews school performance and transparency;						
5. Teachers The teacher organize regular meeting with parents and local communities to seek their support						
6. Students Student Council holds regular meeting with the students and present their views to the School Management Committee						
2.2 Implementing School-Based Management for quality citizenship						
Increase support of political and government policy and enhance economy, socio-culture and technology to develop strategy to avoid threats and consolidate the strength of implementing School-Based Management to promote quality national citizenship.						
1. Ministry of Education, Youth and Sport Adopts Policy, Framework and Guidelines on School-Based Management (SBM) Integrates SBM into the School Director Training and Teacher Training curriculum Establish a financing formula for SBM schools Establish a conceptual framework on Accountability in Education Provides schools with basic needs such as leadership and management competencies, teaching competencies, proper teaching and learning materials, and proper school infrastructure and environment Develop an M&E mechanism for SBM						
2. Directorate General of Education (DGE) Support and expand the implementation of New Generation School Establish and enlarge the budget package for school director training on SBM						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Establish school mentoring program on SBM						
3. Teacher Training Department (TTD) The Teacher Training Department provides training to the Provincial Office of Education (POE) and school directors on SBM The Provincial Office of Education (POE) provides training to the District Office of Education (DOE) on SBM						
4. Schools School principal develops a rolling three-year and annual School Development Plan, by identifying school input, output and outcome indicators, as well as financing sources, with the participation of all key stakeholders; School principal facilitates, coordinates the development of and submit the 3 Years School Outcome Indicators and Targets and annual school improvement plan and budget. School principals submits the results of the evaluation of school performance against school effectiveness standards to SMC School principal manages, facilitates and coordinates all school fund raising activities. School gathers real data and information gained from student assessments, assessment of teachers' competencies; school performance assessment School creates a culture of information sharing by identifying problems jointly with all key stakeholders to promote trust in schools by communities, trust among school staff, and especially trust of parents in teachers.						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
School prepares planning, budgeting, reporting and managing staff performance; School implements curriculum as guided and extra curricula; School principals conducts staff performance management system and propose to reward best performing staff, as well as propose administrative measures for non-performing staff;						
5. School Management Committee (SMC) School Management Committee provides support to teaching and learning, as well as resource mobilization and prepare school evaluation reports; SMC Approves 3-Years School Outcome Indicators and Targets, annual school improvement plan and budget, provides clearance on the evaluation of school performance against school effectiveness standards; and supports and involves in school fund raising; SMC approves the rewards for best staff, proposes administrative measures for non performing staff to sub-national/national level, approves the reward for school principal best performance; SMC implements M&E system and reports progress;						
2.3 Implementing education policies and Education Strategic Plan for quality citizenship						
Enhance political and government policy and promote economy aspects to implementing education policy and ESP to enhance quality national and global citizenship						
1. Ministry of Education, Youth and Sport Update education policies to be consistent with SDG-4; Prepares Education Strategic Plan (ESP) for 2019-2023 and Cambodia SDG-4 Roadmap						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Make efforts to implement two main policies: (1): Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; and (2) Ensuring effective leadership and management of education staff at all levels; Coordinates the implementation of core breakthrough indicators and indicators by sub-sectors; Provides periodical and regular monitoring and review of ESP, focusing on education performance, implementation of strategies, programs, sub-programs and other relevant factors including inputs for education sector. Strengthens M&E system to ensure consistency among priorities and promote implementation of key reform programs. Ensures that education policies and ESP implementation produce highly-qualified human resources to meet the needs of the Industrial Development Policy (IDP), by strengthening education quality at all levels, and improves the implementation of curriculum by including soft skills including social communication skills, problem solving skills, respect for disciplines at work and other technical skills which are important for developing industrial foundation. Implementation 5 pillars of Education Management Reforms including Implement teacher policy action plan (TPAP) and personnel development						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
action plan, with clear budget. School inspection Assessment Curriculum Review, Textbooks and Improving School Infrastructure Higher Education Reform Build capacity for leadership, management, focus on public educational institutions and the participation of community authorities, parents, guardian's student and all stakeholders.						
2. The Provincial Office of Education prepares provincial level ESP						
3. The schools: The school principals encourage community to involve in school management and ensure monitoring and evaluation of ESP and education policies in order to: Expand education services to vulnerable children group Improve the quality of educational services Increase enrolment and graduation rates in all study levels Reduce the dropout rate and repetition rate especially in the secondary schools						
4. Teachers: to improve teaching methods by combining classroom teaching with field visits so that the students familiarize themselves with the surrounding environment and understand the goals of sustainable development						
3. Academic Management Reform for quality citizenship						
3.1 Conducting regular assessment of students for quality citizenship						
Increase support of political and government policy and technology and enhance economy and socio-culture to develop education management reform strategies in conducting regular assessment of students to promote quality national and global citizen, especially by focusing on on knowledge, hard, soft and life skills, as well as the respect of law and order, community and sustainable development, participation in political activities.						
1. Ministry of Education, Youth and Sport (MoEYS)						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Creates a national assessment framework, consisting of national examination systems at grade 9 and grade 12, assessements at grades 3, 6 and 8, Early Grade Reading Assessment (EGRA) and Early Grade Mathematic Assessment (EGMA) at grades 1, 2 and 3, classroom assessments and school-based assessments. Strengthens assessments at grades 3, 6 and 8, on Khmer, Math and Physics; Organizes participation in regional and international tests; Improves guidelines, marking standards and monitoring system of national examinations; Decentralizes responsibility regarding grade 9 examination to POE and Municipal Office of Education;						
2. The Department of Education Quality Assurance (EQAD) Develops the capacity of staff to conduct assessments and analyse results; Develops a system for classroom test						
3. The Department of Primary Education (DPE) The DPE develops the capacity of staff to conduct EGRA and EGMA and analyse results;						
4. Schools School principals facilitate and coordinate the evaluation of school performance against school effectiveness standards; School principals compile data and information for, produce and submit the quarterly progress report on student assessment; School principals compile data and information for,						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
produce and submit the annual progress report on achievement of school outcomes indicators and targets; Incorporate the result of student learning into the school report card						
5. The school management committee (SMC) School Management Committee approves the results from school performance evaluation, and endorses the annual progress report on achievement of school outcomes indicators and targets related to student's learning outcomes;						
6. Teachers Teachers develop tests on students' knowledge on political parties and political system Teacher provides continuous timely support to slow learners and develops teaching pattern and assessment system. Teacher encourages excellence among students;						
7. Students Students should display the following abilities: Read effectively and communicate clearly in written and oral form; Use numbers and do math and science work book; Think independently, critically, creatively and solve problems; Accept ownership for civic and personnel responsibilities; Respect others and act in an honourable and ethical manner; Work effectively both independently and cooperatively.						
3.2 Improving teaching methods for quality citizenship						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Increase support of political and government policy and socio-culture and enhance economy and technology to develop education management reform strategies in improving teaching methods to promote quality national and global citizenship.						
1. Ministry of Education, Youth and Sport Adopts Guidelines on Teaching Methods, aimed at producing a workforce that can think critically, solve problems, and work collaboratively; Adopts Guidelines on Classroom Management; Establish teacher mentoring program to support new teachers; Introduce project-based learning, student-centered, inquiry-based learning methodologies; Implement Reading Standards and Methods for Grades 1, 2 and 3 and Reading Methods in library; Integrates ICT into Teaching Methods.						
2. The Department of Teacher Training (TTD) The TTD provides on-service training based on teachers' competency gaps in teaching methods; TTD integrates new teaching methods, such as active learning, constructive learning, problem-based learning, discovery learning, and inquiry-based learning approaches, as well as new techniques of classroom management in teacher training curriculum; Prepares implementation mechanisms and support regular professional development with the focus on the prepared and in place in-service trainings. Evaluate and properly manage all professional development related activities in order to have formal recognitions or giving equivalent certificates (high school						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
diploma, bachelors, or masters…) Set specific time for in-service trainings. Provide in-service trainings every 5 years. Develop in-service credit system in all aspects. Set up competence development system for education staff in all means (in-place training, accelerated training programs, or short training courses for those holding degree). Support new teachers to attend the practicing mechanism in place regularly						
3. Schools Provide materials for teacher to produce teaching aid; Provide training on effective lesson management, classroom management and on how to maintain focus in the classroom; provides technology so that the teachers can use technology in implementing new teaching methods.						
4. Teachers The teachers get trained and updated on teaching methodologies; Produce teaching aid and applied appropriate teaching methodologies; Change the way of teaching away from 'passive learning' models in which students are thought of as 'receptacles' of knowledge to a new approach or active learning, in which students are active 'constructors' of new knowledge; Create Professional Learning Communities (PLCs) to share best practices in teaching; Apply classroom management techniques to						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
maintain high levels of "withitness" to ensure constant awareness of all students and situations in the classroom; Make sure that students are able to manipulate concepts, to think critically, solving problems and learn collaboratively; Use information technology (e-mail and the Internet) to promote new learning approaches to promote collaborate learning (e.g. through networking), to construct and synthesize new information (e.g. through PowerPoint presentations), solve problems (e.g. through data processing programs that can find relationships, sort data etc.) and provide a means for dialogue, discussion, and debate interactivity that leads to social construction; Introduce Question & Answer activity to help students learning by reflecting on their previous experience and new context to find or 'construct' a new idea that solves different real life problems; Focus on teaching thinking skills at the higher end of the Bloom taxonomy, including analysis, synthesis, and evaluation, stimulates students to exchange ideas through discussions, encourage them to synthesize unique ideas; Encourage students to prepare PowerPoint Presentations in their groups as a useful social channel for students to work together in teams to produce a creative product to share with the class.						
3.3 Integrating Good Citizenship into school curriculum and textbooks for quality citizenship						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Increase support of political and government policy and socio-culture and enhance economy, and technology to develop education management reform strategies to integrating Good Citizenship into school curriculum and textbooks to promote quality national citizen, focusing on how to make the world a better place and responsibility or action.						
1. Ministry of Education, Youth and Sport Implement the National Curriculum Framework and develops a detailed curriculum; Develop detailed curriculum and standards of good citizenship; Integrates Good Citizenship Education, consisting of Good Cambodian Citizenship and Good Global Citizenship, into school curriculum and textbooks; Develops textbooks aligned to the new detailed curriculum; Provide sufficient core textbooks to schools; Develops career counselling at secondary and technical education schools.						
2. The Department of Teacher Training (TTD) The Department of Teacher Training creates course syllabus; TTD provides training for teacher trainers focusing on global issues; Teacher Education Colleges (TECs), Regional Teacher Training Centers (RTTCs), and Provincial Teacher Training Centers (PTTCs) train teacher trainees on the new curriculum and use of core textbooks, including Good Cambodian Citizenship and Good Global Citizenship						
3. Schools Create a special room using digital tools, such as LCD projectors, computers and other teaching materials for integrating quality citizenship into the classrooms;						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Upgrade library to the standards of the 21st century for students to work together on analytical skills.						
4. Teachers Teachers improve teaching methods, including role play, to ensure that students gain knowledge on global issues Use ICT and digital tools to implement quality citizenship curriculum in the classrooms; Introduce project works and brainstorming sessions to implement quality citizenship curriculum; Encourage students to update learning materials on quality citizenship, requiring them to make presentations to the class using useful corlorful pictures, charts and diagrams; Introduce writing competition on quality citizenship issues.						
4. Human Resources Management Reform for quality citizenship						
4.1 Providing INSET training for quality citizenship						
Increase support of political and government policy and technology, enhance economy and socio-cultural aspects to develop education management reform strategies to provide INSET development to promote quality national and global citizenship, especially by focusing on recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.						
1. Ministry of Education, Youth and Sport (MoEYS) Adopts Policy on Continuous Professional Development (CPD), focusing on teaching methods and mentoring programs; Provides regular professional development framework for education staff. Provides regular in-service training for education staff. Ensures the link between Regular Professional Development and Teacher Career Pathway. Conducts regular monitoring and evaluation						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
system on regular professional development of education staff. Adopts Policy on Lifelong Learning Promotes career development by establishing a Teacher Career Pathway (TCP), based on a clear career structure, merit-based promotion and agreed salary scales, a master plan on continuous professional development (systematic INSET/ONSET);						
2. The Teacher Training Department (TTD) Validate the content of in-service training documents focusing on teaching methods and training programs. Organize in-place management system for all kinds of related trainings. Support new teachers to attend the practicing mechanism in place regularly. Increase competencies of teacher trainers, core trainers, and trainers at school. Organize, strengthen and practice new mechanism for in-place education staff support to meet the needs and enhance professional skills. Organize a sharing event of the best practices and innovation by well-performed education staff. Increase competencies of core officers of human resource entities at national and sub national level. Develop teachers' profession through elective option, in-place credit system, distance learning, step-by-step short term training courses, long term training courses, scholarship, training with						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
letter of confirmation, and accelerated training program. Increase qualifications of education staff and education management committee at the middle level to at least master's degree. Develop credit system for the training courses to motivate education staff to follow Teacher Career Pathway.						
3. Schools The school prepares INSET/ONSET Budget and incorporates it in the School Budget;						
4. Teachers The teachers get trained on establish Professional Learning Communities (PLCs) to share teaching experiences among their peers						
4.2 Increasing teacher's PRESET qualifications for quality citizenship						
Increase support of political and government policy and socio-cultural and enhance economy and technology to develop education management reform strategies to increasing PRESET teacher qualifications to promote quality national and global citizenship, especially by focusing on knowledge, hard, soft and life skills.						
1. Ministry of Education, Youth and Sport (MoEYS) MoEYS reviews the PRESET teacher curriculum for primary and lower secondary school teachers at BA level; Reviews the policies and criteria for recruiting teachers; Rationalizes the needs and the supply of teachers at national and sub-national levels Improve procedures for teacher deployment and redeployment; Improve the living standards of education staff by increasing remuneration and allowances. Prepares incentives for teachers at disadvantaged areas;						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
Establish a Teacher council for the accreditation of Teacher Education Provider (TEP) and develops a master plan on development of Teacher Education College.						
2. Teacher Training Department (TTD) The Department of Teacher Training submits budget requests to MEF to enable the existing teachers to upgrade their qualifications from 12+2 to 12+4; TTD develops a Medium-term Plan for strengthening teacher educator and a plan on the implementation of B.Ed Fast Track model to address the shortages of teachers; Increase professional qualifications and experiences of lecturers and trainers at Regional Teacher Training Centers (RTTC) and Provincial Teacher Training Centers (PTTC) to meet the Teacher Education Provider Standard (TEPS) requirements;						
3. Teacher Education College (TEC) Teacher Education College and Faculty of Education at Royal University of Phnom Penh (RUPP) revise teacher training curriculum (12+4), syllabus and materials; Upgrade qualification of teacher trainers Provide support and share resources to other RTTCs						
4. National Institute of Education (NIE) Revise upper secondary teacher training module (MA+1) Upgrade qualification of teacher trainers						
5. The Royal University of Phnom Penh (RUPP)						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
RUPP to be accredited to conduct fast-track BEd training programs.						
4.3 Implementing teacher performance assessment for quality citizenship						
Increase support of political and government policy and technology and enhance the economy and socio-culture to develop education management reform strategies in implementing teacher performance assessment to promote quality national and global citizenship, by focusing on on knowledge, hard, soft and life skills, respect of law and order, community and sustainable development, participation in political activities, as well as recognition of global fissues, the respect for diversity and human values, making the world a better place and responsibility for actions.						
1. Ministry of Education, Youth and Sport Prepares and adopts Manual on Teacher Performance Assessment and Teacher Career Pathway (TCP) Improves staff performance appraisal procedures, with clear criteria for promotion/nomination, development a credit system, and assuring performance of education staff evaluation committees through a policy on Cambodia Teacher Career Pathway, introduction of Career passport and Credit system Operationalize a Teacher Support and Assessment office within TTD						
2. The Department of Personnel (DoPer) The Department of Personnel carries out pilot implementation within three department (Department of Personnel, Department of Planning and Department of Finance) and roll out the implementation after initial evaluation Pilot implementation with selected PEOs.						
3. Schools School directors to implement teacher performance assessment by focusing on student learning outcomes and evaluation by the Student Council School implements the principles of education staff						

Main Strategy/ sub-strategy/ procedure	Suitability		Feasibility		Should be modified	
	Number	Percent	Number	Percent	Number	Percent
performance appraisal system; School develops education management staff capacity development plan and system School motivates teacher through performance management; School principal provides all required school inputs;						
4. Teachers The teachers submits annual request to school directors for training needs;						
Total Mean						

Appendix B

Name List of Specialists and Stakeholders

1. A list of specialists who examine the content validity and suitability of the conceptual framework and research tool (the questionnaire)

2. A list of specialists and stakeholders who examine the first draft of the Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia

3. A list of specialists and stakeholders who participate in the focus group

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1. **List of specialists who examine the content validity and suitability of the conceptual framework and research tool (the questionnaire)**

1. Dr. Nath Bunroeun, Secretary of State, Ministry of Education, Youth and Sport, Cambodia, specializing in Educational management, Educational reform in Cambodia and Local Quality Citizen Education.
2. Dr. Chet Chealy, Rector, Royal University of Phnom Penh (RUPP), specializing in Educational Management.
3. Dr. Dy Samsideth, Former Dean, Faculty of Education, RUPP, Deputy Director General for Education, Ministry of Education, Youth and Sport, specializing in Educational Strategic Management and Educational Policies.
4. Dr. Chhinh Sitha, Lecturer at the Faculty of Education, National Education Expert for the World Bank Project, specializing in teacher development and international development.
5. Dr. Sok Soth, Dean of the Faculty of Education, specializing in Global Quality Citizenship Education.

2. List of specialists and stakeholders who examine the first draft of the Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia (40 experts and stakeholders)

No.	Name	Title
1	H.E. Dr. Nath Bunroeun	Secretary of State, Ministry of Education, Youth and Sport, Cambodia
2	H.E. Kim Sethany	Secretary of State, Ministry of Education, Youth and Sport, Cambodia
3	H.E. Lim Sothea	Director General, DGPP
4	H.E. Put Samith	Director General, DGE
5	H.E. Mak Ngoy	Director General, DGHE
6	Dr. Chey Sarin	Inspector General
7	Dr. Dy Samsideth	Deputy Director General for Education, Ministry of Education, Youth and Sport
8	H.E. Oung Borat	Deputy Director General, DGPP
9	Dr. Sam Or Angkearoath	Deputy Director General, DGPP
10	Dr. Ros Soveacha	Deputy Director General, DGPP
11	Mr. Lor Chor Vanna	Deputy Director General, DGE
12	Dr. Khuon Vichheka	Deputy Director General, DGE
13	Dr. Mok Sarom	Deputy Director General, DGE
14	Mr. Ung Chinna	Director, EQAD
15	Mr. Tep Pyorith	Director, Department of Finance
16	Dr. Pech Seang	Director, Kampong Cheuteal Institute of Technology
17	Mr. Ung Ngor Hok	Director, GSED
18	Dr. Hong Kimcheang	Director, Kampong Speu Institute of Technology
19	Mr. Kong Phumika	Director, DHE
20	Mr. Or Siem	Director, CDD
21	Dr. Dy Khamboly	Director, Policy Department
22	Mr. Pong Pitin	Director, EMIS
23	Mr. Hin Sim Huon	Deputy Executive Director, Kapuchea Action for Primary Education (KAPE)
24	Santosh Khatri	Chief of Education Unit, UNESCO/Cambodia
25	Keo Sarath	Education Specialist, Save the Children
26	Chin Chanveasna	Executive Director, NGO Education Partnership
27	Sao Vanna	Executive Director, Kapuchea Action for Primary Education (KAPE)
28	Ros Sereisatya	Education Specialist, USAID
29	Dr. Cheth Chealy	Rector, Royal University of Phnom Penh
30	Dr. Sieng Sovanna	Director, National Institute of Education
31	Dr. Hart Bunhe	Deputy Director, Kampong Speu Institute of Technology
32	Dr. Chhinh Sitha	Lecturer at the Faculty of Education
33	Mr. Phann Bunnath	Education officer, KAPE
34	Mr. Hean Vanna	School principal, Koh Thom High School
35	Mr. Sok Theng	Teacher, Koh Thom High School
36	Mr. Ly Meng	School principal, Sa Ang High School
37	Mr. Yong Yon	Teacher, Sa Ang High School
38	Mr. Mam Sotheany	School principal, Sereipheap High School
40	Mr. Vay Layheng	Teacher, Sereipheap High School
39	Mr. Ty Nada	School principal, Ta Khmao High School
40	Mr. Chuon Nak	Teacher, Ta Khmao High School

No.	Name	Title
41	Anonymous	School principal, Pong Tik High School
42	Anonymous	Teacher, Pong Tik High School
43	Anonymous	School principal, Kantuot High School
44	Anonymous	Teacher, Kantuot High School
45	Anonymous	Head of Department, Kampong Cheuteal Institute of Technology
46	Anonymous	Head of Department, Kampong Cheuteal Institute of Technology
47	Anonymous	
48	Anonymous	
49	Anonymous	
50	Anonymous	
51	Anonymous	

3. List of 12 education specialists who examine the second draft of the Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia in the Focus Group Discussion

No.	Name	Title
	10 Education policymakers	
1	H.E. Dr. Nath Bunroeun	Secretary of State, Ministry of Education, Youth and Sport, Cambodia
2	Dr. Dy Samsideth	Deputy Director General for Education, Ministry of Education, Youth and Sport
3	H.E. Oung Borat	Deputy Director General, DGPP
4	Dr. Sam Or Angkearoath	Deputy Director General, DGPP
5	Dr. Ros Soveacha	Deputy Director General, DGPP
6	Mr. Lor Chor Vanna	Deputy Director General, DGE
7	Mr. Ung Chinna	Director, EQAD
8	Dr. Dy Khamboly	Director, Policy Department
9	Mr. Sophea Mar	Sr. Social Sector Officer, ADB/Cambodia
10	Sarath Keo	Education Specialist, Save the Children
11	Chanveasna Chin	Executive Director, NGO Education Partnership
12	Dr. Cheth Chealy	Rector, Royal University of Phnom Penh
13	Dr. Sok Soth	Dean, Faculty of Education, Royal University of Phnom Penh
14	Dr. Chhinh Sitha	Lecturer at the Faculty of Education

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Appendix C
Letters of Cooperation

No. 0512.6 (2747) /

Division of Educational Administration

Faculty of Education, Chulalongkorn University

Phayathai Road, Pathumwan

Bangkok 10330, Thailand

June 27, 2017

Subject: Request for cooperation to confirm theoretical framework of a research

Dear   Dr. Nath Bunroeun

Attachment: Dissertation proposal summary and theoretical framework

On behalf of the Faculty of Education, Chulalongkorn University. I am writing to request a cooperation in a research project conducted by Mr. Hang Chuon Naron, one of the students of our Doctor of Philosophy Program in Educational Management. Mr. Hang Chuon Naron is currently conducting her doctoral dissertation research on **"Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia"**. This research is under the supervision of Professor Pruet Siribanpitak, Ph.D. and Assistant Professor Chayapim Usaho, Ph.D.

In this research, Mr. Hang Chuon Naron needs to confirm the theoretical framework of a doctoral dissertation research from experts who specialize in educational management reform and quality citizenship, or related field in education.

We do hope that you will grant permission to Mr. Hang Chuon Naron to ask for confirming the theoretical framework as mentioned above. Your kind cooperation is greatly appreciated.

Sincerely Yours,

Prof. Pruet Siribanpitak, Ph.D.

(Chairman of Doctor of Philosophy Program

in Educational Management)

Division of Education Management

Tel. 0 2218-2565 - 97 Ext. 7062

Fax 0 2218-2562

No. 0512.6 (2747) /

Division of Educational Administration
Faculty of Education, Chulalongkorn University
Phayathai Road, Pathumwan
Bangkok 10330, Thailand

June 27, 2017

Subject: Request for cooperation to confirm theoretical framework of a research
Dear   Dr. Chet Chealy
Attachment: Dissertation proposal summary and theoretical framework

On behalf of the Faculty of Education, Chulalongkorn University. I am writing to request a cooperation in a research project conducted by Mr. Hang Chuon Naron, one of the students of our Doctor of Philosophy Program in Educational Management. Mr. Hang Chuon Naron is currently conducting her doctoral dissertation research on **"Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia"**. This research is under the supervision of Professor Pruet Siribanpitak, Ph.D. and Assistant Professor Chayapim Usaho, Ph.D.

In this research, Mr. Hang Chuon Naron needs to confirm the theoretical framework of a doctoral dissertation research from experts who specialize in educational management reform and quality citizenship, or related field in education.

We do hope that you will grant permission to Mr. Hang Chuon Naron to ask for confirming the theoretical framework as mentioned above. Your kind cooperation is greatly appreciated.

Sincerely Yours,

Prof. Pruet Siribanpitak, Ph.D.
(Chairman of Doctor of Philosophy Program
in Educational Management)

Division of Education Management
Tel. 0 2218-2565 - 97 Ext. 7062
Fax 0 2218-2562

No. 0512.6 (2747) /

Division of Educational Administration

Faculty of Education, Chulalongkorn University

Phayathai Road, Pathumwan

Bangkok 10330, Thailand

June 27, 2017

Subject: Request for cooperation to confirm theoretical framework of a research

Dear Dr. Dy Samsideth

Attachment: Dissertation proposal summary and theoretical framework

On behalf of the Faculty of Education, Chulalongkorn University. I am writing to request a cooperation in a research project conducted by Mr. Hang Chuon Naron, one of the students of our Doctor of Philosophy Program in Educational Management. Mr. Hang Chuon Naron is currently conducting her doctoral dissertation research on **"Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia"**. This research is under the supervision of Professor Pruet Siribanpitak, Ph.D. and Assistant Professor Chayapim Usaho, Ph.D.

In this research, Mr. Hang Chuon Naron needs to confirm the theoretical framework of a doctoral dissertation research from experts who specialize in educational management reform and quality citizenship, or related field in education.

We do hope that you will grant permission to Mr. Hang Chuon Naron to ask for confirming the theoretical framework as mentioned above. Your kind cooperation is greatly appreciated.

Sincerely Yours,

Prof. Pruet Siribanpitak, Ph.D.

(Chairman of Doctor of Philosophy Program

in Educational Management)

Division of Education Management

Tel. 0 2218-2565 - 97 Ext. 7062

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No. 0512.6 (2747) /

Division of Educational Administration

Faculty of Education, Chulalongkorn University

Phayathai Road, Pathumwan

Bangkok 10330, Thailand

June 27, 2017

Subject: Request for cooperation to confirm theoretical framework of a research

Dear   Dr. Chhinh Sitha

Attachment: Dissertation proposal summary and theoretical framework

On behalf of the Faculty of Education, Chulalongkorn University. I am writing to request a cooperation in a research project conducted by Mr. Hang Chuon Naron, one of the students of our Doctor of Philosophy Program in Educational Management. Mr. Hang Chuon Naron is currently conducting her doctoral dissertation research on **"Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia"**. This research is under the supervision of Professor Pruet Siribanpitak, Ph.D. and Assistant Professor Chayapim Usaho, Ph.D.

In this research, Mr. Hang Chuon Naron needs to confirm the theoretical framework of a doctoral dissertation research from experts who specialize in educational management reform and quality citizenship, or related field in education.

We do hope that you will grant permission to Mr. Hang Chuon Naron to ask for confirming the theoretical framework as mentioned above. Your kind cooperation is greatly appreciated.

Sincerely Yours,

Prof. Pruet Siribanpitak, Ph.D.

(Chairman of Doctor of Philosophy Program

in Educational Management)

Division of Education Management

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Phayathai Road, Pathumwan

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June 27, 2017

Subject: Request for cooperation to confirm theoretical framework of a research

Dear   Dr. Sok Soth

Attachment: Dissertation proposal summary and theoretical framework

On behalf of the Faculty of Education, Chulalongkorn University. I am writing to request a cooperation in a research project conducted by Mr. Hang Chuon Naron, one of the students of our Doctor of Philosophy Program in Educational Management. Mr. Hang Chuon Naron is currently conducting her doctoral dissertation research on **"Education Management Reform Strategy for Enhancing the Quality Citizenship in Cambodia"**. This research is under the supervision of Professor Pruet Siribanpitak, Ph.D. and Assistant Professor Chayapim Usaho, Ph.D.

In this research, Mr. Hang Chuon Naron needs to confirm the theoretical framework of a doctoral dissertation research from experts who specialize in educational management reform and quality citizenship, or related field in education.

We do hope that you will grant permission to Mr. Hang Chuon Naron to ask for confirming the theoretical framework as mentioned above. Your kind cooperation is greatly appreciated.

Sincerely Yours,

Prof. Pruet Siribanpitak, Ph.D.

(Chairman of Doctor of Philosophy Program

in Educational Management)

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Appendix D
Results of Data Analysis

1) Examination of the validity of the questionnaire

Research Questionnaire: Education management reform strategies for enhancing the quality of citizenship in Cambodia

Introduction:

This research is part of the doctoral dissertation in Education Administration, Faculty of Education, Chulalongkorn University.

The objective of this questionnaire is to study the current and desirable states of Education management reform strategies for enhancing the quality of citizenship in Cambodia. The researcher would like to ask you for help in examining the validity of the questionnaire to achieve maximum benefit in the development of research tools and research objectives.

The results from the questionnaire will be used to develop education management reform strategies for enhancing the quality of citizenship in Cambodia.

There are three sections in this examination of the validity of the questionnaire:

Section 1. The variables that must be measured in the research.

Section 2. Other suggestions to improve the questionnaire.

Section 3. The basic information of the expert.

The data obtained from the questionnaire is used to analyse the overall aspects of education management reform strategies and in no way shall it impact the respondents or their position. The information obtained from this questionnaire will be kept confidential.

Mr. Hang Chuon Naron

Doctor of Philosophy Student in Educational Administration

Department of Education Policy, Management and Leadership

Faculty of Education

Chulalongkorn University

Section 1. The variables that must be measured in the research

Introduction: Please consider the following measures that meet the definition or not.

Please tick (✓) in the box □ that is true for you. The criteria are as follows:

-1   Means   you think this is unsuitable

 0   Means   you are not sure

+1   Means   you think this is suitable

Results of the examination of the validity of the questionnaire

Experts: 1. Dr. Nath Bunroeun, 2. Dr. Chet Chealy, 3. Dr. Dy Samsideth, 4. Dr. Chhinh Sitha, 5. Dr. Sok Soth.

Item	Experts					IOC	Suggestions
Administrative and General Management Reform							
1.1. Education Policy and Strategic Plan: In what level that education policy and strategic plan developed by MoEYS enhance quality citizen in Cambodia as in the following items?							
1) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	0	0.8	
2) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
3) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
4) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
5) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	0	0.8	
6) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
7) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
8) Education policy and education strategic plan developed by MoEYS	+1	+1	+1	+1	+1	1.0	

Item	Experts					IOC	Suggestions
enhance students' willingness to make the world an equitable and sustainable place							
9) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
1.2. School-Based Management: In what level that School-Based Management enhance the quality citizen in Cambodia as in the following items?							
10) School-Based Management enhances students' knowledge and technical skills	+1	+1	+1	0	+1	0.8	
11) School-Based Management enhances students' critical thinking, problem solving, communication and life skills	+1	+1	+1	0	+1	0.8	
12) School-Based Management enhances students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
13) School-Based Management enhances students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
14) School-Based Management enhances students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
15) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	0	+1	0.8	
16) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
17) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	0	+1	0.8	
18) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
1.3. Community Involvement: In what level that the increasing of Committee involvement in school management enhance quality citizen in Cambodia as in the followings items?							
19) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
20) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	

Item	Experts					IOC	Suggestions
21) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
22) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
23) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
24) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
25) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
26) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
27) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
Academic Management Reform							
2.1. Curriculum and Textbooks Management: In what level that MoEYS integrates Good Citizenship Education into school curriculum and textbooks enhance the quality citizen in Cambodia as in the followings items?							
28) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
29) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
30) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
31) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
32) Education policy and education strategic plan developed by MoEYS	+1	+1	+1	+1	+1	1.0	

Item	Experts					IOC	Suggestions
enhance students' participation in political discussions and elections.							
33) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
34) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
35) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
36) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
2.2. Teaching and Learning Process Management: In what level that the integration of Good Citizenship Education in the teaching and learning process enhance the quality citizen in Cambodia as in the following items?							
37) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
38) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
39) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
40) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
41) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
42) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
43) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	

Item	Experts					IOC	Suggestions
44) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
45) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
2.3. Student Assessment Management: In what level that regular student assessment process enhance the quality citizen in Cambodia as in the following items?							
46) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
47) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
48) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
49) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
50) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
51) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
52) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
53) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
54) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
3. Education finance management reform							

Item	Experts					IOC	Suggestions
3.1. Education financial allocation linking budget to education policies: In what level that MoEYS increased budget allocations linking budget to education policies enhance the quality citizen in Cambodia as in the following items?							
55) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
56) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
57) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
58) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
59) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
60) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
61) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
62) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
63) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
3.2. Financial Autonomy and Accountability of Schools: In what level that the increasing of schools financial autonomy and accountability enhance the quality citizen in Cambodia as in the following items?							
64) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
65) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking,	+1	+1	+1	+1	+1	1.0	

Item	Experts					IOC	Suggestions
problem solving, communication and life skills							
66) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
67) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
68) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
69) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
70) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
71) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
72) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
3.3. Education Budget Audit: In what level that the implementation of budget audit of Provincial Department of Education (POE) enhance the quality citizen in Cambodia as in the following items?							
73) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
74) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
75) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
76) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
77) Education policy and education strategic plan developed by MoEYS	+1	+1	+1	+1	+1	1.0	

Item	Experts					IOC	Suggestions
enhance students' participation in political discussions and elections.							
78) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
79) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
80) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
81) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
Human Resources Management Reform							
4.1. PRESET: In what level that the increasing of PRESET teacher qualifications from 12+2 to 12+4 enhance the quality citizen in Cambodia as in the following items?							
82) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
83) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
84) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
85) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
86) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
87) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
88) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	

Item	Experts					IOC	Suggestions
89) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
90) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
4.2. INSET: In what level that INSET teacher training, focusing on teaching methods and mentoring programs, enhance the quality citizen in Cambodia as in the following items?							
91) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
92) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
93) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
94) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
95) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
96) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
97) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
98) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
99) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	
4.3. Teacher Performance Assessment: In what level that the implementation of teacher performance assessment enhance the quality citizen in Cambodia as in the following items?							

Item		Experts					IOC	Suggestions
	100) Education policy and education strategic plan developed by MoEYS enhance students' knowledge and technical skills	+1	+1	+1	+1	+1	1.0	
	101) Education policy and education strategic plan developed by MoEYS enhance students' critical thinking, problem solving, communication and life skills	+1	+1	+1	+1	+1	1.0	
	102) Education policy and education strategic plan developed by MoEYS enhance students' respect for the law and social order	+1	+1	+1	+1	+1	1.0	
	103) Education policy and education strategic plan developed by MoEYS enhance students' commitment to community and sustainable development	+1	+1	+1	+1	+1	1.0	
	104) Education policy and education strategic plan developed by MoEYS enhance students' participation in political discussions and elections.	+1	+1	+1	+1	+1	1.0	
	105) Education policy and education strategic plan developed by MoEYS enhance students' recognition of global issues, including global warming and conflicts	+1	+1	+1	+1	+1	1.0	
	106) Education policy and education strategic plan developed by MoEYS enhance students' respect diversity and human values	+1	+1	+1	+1	+1	1.0	
	107) Education policy and education strategic plan developed by MoEYS enhance students' willingness to make the world an equitable and sustainable place	+1	+1	+1	+1	+1	1.0	
	108) Education policy and education strategic plan developed by MoEYS enhance students' responsibility for own actions	+1	+1	+1	+1	+1	1.0	

IOC = 0.98

Option 2

No	Province	District	School Name	Region	
				1	2
1	Banteay Meanchey	Mongkol Borei	Mongkol Borei	1	2
2	Battambang	Battambang	Pannasatra International School	2	2
3	Kampong Cham	Chamkar Leu	Speu	1	4
4	Kampong Chhnang	Baribo	Hun Sen Baribo	1	2
5	Kampong Speu	Barset	Slap Leng	1	3

No	Province	District	School Name	Region 1	Region 2
6	Kampong Thom	Baray	ICC Cambodia School		3
7	Kampot	Banteay Meas	Kansom Ak		3
8	Kandal	Kandal Stung	Hun Sen Kampong Kantuot	1	6
9	Koh Kong	Botum Sakor	Thmar Sar	1	1
10	Kratie	Snuol	Hun Sen Snuol		2
11	Phnom Penh	Chamkar Morn	Chea Sim Boeung Keng Kang	14	
12	Preah Vihear	Rovieng	Rovieng	1	1
13	Prey Veng	Ba Phnom	Chea Sim Reak Chey	1	4
14	Pursat	Bakan	Bakan	1	1
15	Siemreap	Angkor Chum	Angkor Chum	2	3
16	Preah Sihanouk	Preah Sihanouk	School of Hope	1	
17	Stung Treng	Steung Treng	Hun Sen Stung Treng	1	
18	Svay Rieng	Kampong Ro	Hun Sen Kampong Ro	1	3
19	Takeo	Bati	Hun Sen 1 Mithona		7
20	Kep	Damnak Chang-Oeur	Samdech Hun Sen Chamkar Daung		1
21	Otdar Meanchey	Anlong Veng	Hun Sen Anlung Veng		1
22	Tbaung Khmum	Memot	Bun Rany Hun Sen Kdol Phsar		2
			Total	30	51

*Note:
   - Region 1: Urban
   - Region 2: Rural

2) Results Analysis of Internal and External Aspects Of Education Management Reform in Cambodia

The components of the internal environment

From the results of the PNI modified of the internal environment, the highest PNI modified value is 0.469, and the lowest PNI modified value is 0.298. Therefore, the PNI modified of the internal environment organized in two groups of high and low PNI modified displayed as follows:

(0.469-0.298)/2 = 0.0855

The mid interval value is used to organize the two PNI modified groups as follows:

The high PNI modified values are 0.469-0.383 (weak)

The low PNI modified values are 0.298-0.382 (strong)

The component of the external environment

From the results of PNI modified of the external environment, the highest PNI modified value is 0.438, and the lowest PNI modified value is 0.308. Therefore, the PNI modified of the external environment organized in two groups of high and low PNI modified are as follows:

(0.438-0.308)/2 = 0.065

The mid interval value is used to organize the two PNI modified groups are follows:

The high PNI modified values are 0.438 – 0.375 (threat)

The low PNI modified values are 0.308 – 0.374 (opportunity)

The PNI modified of Education management reform strategies for enhancing the quality of citizenship in Cambodia obtained from the analysis of the internal environment and the external environment on each aspect

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
Administrative management reform	3.12	0.61	4.26	0.53	0.365	
1. Education policy and Education Strategic Plan	3.17	0.61	4.27	0.54	0.347	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
Internal factors affecting Education policy and Education Strategic Plan						
1.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.24	0.72	4.34	0.69	0.341	
1.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.09	0.81	4.27	0.75	0.383	
1.1.3 Students' respect for the law and social order	3.37	0.85	4.43	0.73	0.315	
1.1.4 Students' commitment to community and sustainable development	3.13	0.88	4.23	0.74	0.352	
1.1.5 Students' participation in political discussions and elections	2.71	1.01	3.87	0.92	0.427	
1.1.6 Students' recognition of global issues, including global warming and conflicts	2.92	0.89	4.05	0.84	0.386	
1.1.7 Students' respect diversity and human values	3.43	0.81	4.44	0.71	0.297	
1.1.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.88	4.29	0.77	0.361	
1.1.9 Students' responsibility for own actions	3.44	0.88	4.50	0.72	0.308	
1.2. Polical and government policy supports the implementation of Education policy and Education Strategic Plan						
1.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.09	0.89	4.34	0.79	0.405	
1.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.14	0.86	4.34	0.79	0.382	
1.2.3 Students' respect for the law and social order	3.24	0.87	4.39	0.76	0.355	
1.2.4 Students' commitment to community and sustainable development	3.12	0.87	4.28	0.81	0.372	
1.2.5 Students' participation in political discussions and elections	2.84	0.98	3.99	0.98	0.405	
1.2.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.89	4.18	0.84	0.389	
1.2.7 Students' respect diversity and human values	3.26	0.89	4.38	0.75	0.344	
1.2.8 Students' willingness to make the world an equitable and sustainable place	3.19	0.90	4.32	0.80	0.354	
1.2.9 Students' responsibility for own actions	3.30	0.89	4.46	0.75	0.352	
1.3. Economy supports the implementation of Education policy and Education Strategic Plan						
1.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.20	0.79	4.41	0.72	0.378	
1.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.22	0.81	4.36	0.73	0.354	
1.3.3 Students' respect for the law and social order	3.25	0.81	4.41	0.70	0.357	
1.3.4 Students' commitment to community and sustainable development	3.09	0.82	4.28	0.76	0.385	
1.3.5 Students' participation in political discussions and elections	2.84	0.96	3.99	0.97	0.405	
1.3.6 Students' recognition of global issues, including global warming and conflicts	3.07	0.85	4.21	0.81	0.371	
1.3.7 Students' respect diversity and human values	3.33	0.84	4.46	0.70	0.339	
1.3.8 Students' willingness to make the world an equitable and sustainable place	3.17	0.84	4.30	0.77	0.356	
1.3.9 Students' responsibility for own actions	3.32	0.86	4.45	0.74	0.340	
1.4. Socio-culture supports the implementation of Education policy and Education Strategic Plan						
1.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.11	0.80	4.35	0.73	0.399	
1.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.10	0.81	4.32	0.73	0.394	
1.4.3 Students' respect for the law and social order	3.21	0.83	4.41	0.74	0.374	
1.4.4 Students' commitment to community and sustainable development	3.08	0.82	4.29	0.76	0.393	
1.4.5 Students' participation in political discussions and elections	2.83	1.18	4.01	0.96	0.417	
1.4.6 Students' recognition of global issues, including global warming and conflicts	2.96	0.82	4.17	0.81	0.409	
1.4.7 Students' respect diversity and human values	3.17	0.83	4.34	0.74	0.369	
1.4.8 Students' willingness to make the world an equitable and sustainable place	3.12	0.84	4.29	0.76	0.375	
1.4.9 Students' responsibility for own actions	3.26	0.85	4.47	0.69	0.371	
1.5 Technology supports the implementation of Education policy and Education Strategic Plan						

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/ W
	mean	S.D	mean	S.D		O/T
1.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.10	0.87	4.40	0.74	0.419	
1.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.15	0.82	4.36	0.73	0.384	
1.5.3 Students' respect for the law and social order	3.12	0.81	4.30	0.76	0.378	
1.5.4 Students' commitment to community and sustainable development	3.06	0.79	4.27	0.74	0.395	
1.5.5 Students' participation in political discussions and elections	2.82	0.92	3.95	0.98	0.401	
1.5.6 Students' recognition of global issues, including global warming and conflicts	3.02	0.83	4.21	0.80	0.394	
1.5.7 Students' respect diversity and human values	3.22	0.83	4.37	0.75	0.357	
1.5.8 Students' willingness to make the world an equitable and sustainable place	3.17	0.82	4.34	0.75	0.369	
1.5.9 Students' responsibility for own actions	3.28	0.84	4.46	0.70	0.360	
2. School-Based Management	3.16	0.65	4.30	0.56	0.361	
2.1 Internal factors affecting School-Based Management						
2.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.23	.797	4.38	0.69	0.356	
2.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.14	0.81	4.32	0.73	0.375	
2.1.3 Students' respect for the law and social order	3.42	0.87	4.50	0.68	0.315	
2.1.4 Students' commitment to community and sustainable development	3.11	0.86	4.27	0.74	0.374	
2.1.5 Students' participation in political discussions and elections	2.65	0.97	3.84	0.96	0.452	
2.1.6 Students' recognition of global issues, including global warming and conflicts	2.95	0.88	4.10	0.79	0.389	
2.1.7 Students' respect diversity and human values	3.40	0.83	4.44	0.72	0.306	
2.1.8 Students' willingness to make the world an equitable and sustainable place	3.18	0.87	4.29	0.75	0.350	
2.1.9 Students' responsibility for own actions	3.45	0.87	4.55	0.68	0.317	
2.2. Polical and government policy supports the implementation of School-Based Management						
2.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.15	0.87	4.37	0.76	0.387	
2.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.16	0.83	4.34	0.74	0.373	
2.2.3 Students' respect for the law and social order	3.26	0.85	4.44	0.71	0.362	
2.2.4 Students' commitment to community and sustainable development	3.09	0.86	4.27	0.78	0.382	
2.2.5 Students' participation in political discussions and elections	2.83	0.95	3.95	1.00	0.396	
2.2.6 Students' recognition of global issues, including global warming and conflicts	2.97	0.89	4.14	0.85	0.394	
2.2.7 Students' respect diversity and human values	3.25	0.86	4.38	0.73	0.348	
2.2.8 Students' willingness to make the world an equitable and sustainable place	3.19	0.90	4.31	0.77	0.351	
2.2.9 Students' responsibility for own actions	3.31	0.86	4.46	0.71	0.347	
2.3. Economy supports the implementation of School-Based Management						
2.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.13	0.80	4.34	0.73	0.387	
2.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.14	0.81	4.32	0.76	0.376	
2.3.3 Students' respect for the law and social order	3.22	0.83	4.37	0.77	0.357	
2.3.4 Students' commitment to community and sustainable development	3.08	0.82	4.27	0.77	0.386	
2.3.5 Students' participation in political discussions and elections	2.75	0.95	3.89	1.01	0.415	
2.3.6 Students' recognition of global issues, including global warming and conflicts	2.97	0.84	4.15	0.83	0.397	
2.3.7 Students' respect diversity and human values	3.26	0.83	4.39	0.72	0.347	
2.3.8 Students' willingness to make the world an equitable and sustainable place	3.17	0.85	4.32	0.74	0.363	
2.3.9 Students' responsibility for own actions	3.32	0.85	4.48	0.71	0.349	
2.4. Socio-culture supports the implementation of School-Based Management						

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
2.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.10	0.81	4.32	0.74	0.394	
2.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.14	0.80	4.30	0.73	0.369	
2.4.3 Students' respect for the law and social order	3.16	0.82	4.36	0.73	0.380	
2.4.4 Students' commitment to community and sustainable development	3.07	0.83	4.26	0.76	0.388	
2.4.5 Students' participation in political discussions and elections	2.76	0.94	3.96	0.98	0.435	
2.4.6 Students' recognition of global issues, including global warming and conflicts	2.93	0.88	4.12	0.87	0.406	
2.4.7 Students' respect diversity and human values	3.22	0.81	4.38	0.73	0.360	
2.4.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.85	4.30	0.77	0.365	
2.4.9 Students' responsibility for own actions	3.27	0.83	4.46	0.70	0.364	
2.5. Technology supports the implementation of School-Based Management						
2.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.12	0.84	4.34	0.77	0.391	
2.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.13	0.80	4.33	0.76	0.383	
2.5.3 Students' respect for the law and social order	3.20	0.82	4.35	0.74	0.359	
2.5.4 Students' commitment to community and sustainable development	3.07	0.79	4.25	0.78	0.384	
2.5.5 Students' participation in political discussions and elections	2.78	0.91	3.99	0.96	0.435	
2.5.6 Students' recognition of global issues, including global warming and conflicts	3.02	0.85	4.19	0.81	0.387	
2.5.7 Students' respect diversity and human values	3.21	0.83	4.38	0.72	0.364	
2.5.8 Students' willingness to make the world an equitable and sustainable place	3.13	0.84	4.32	0.75	0.380	
2.5.9 Students' responsibility for own actions	3.28	0.84	4.47	0.70	0.363	
3. Community involvement	3.02	0.73	4.33	0.57	0.434	
3.1. Internal factors affecting Community involvement						
3.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	2.88	0.91	4.15	0.80	0.441	
3.1.2 Students' critical thinking, problem solving, communication skills and life skills	2.98	0.87	4.18	0.77	0.403	
3.1.3 Students' respect for the law and social order	3.21	0.92	4.38	0.76	0.364	
3.1.4 Students' commitment to community and sustainable development	3.09	0.87	4.26	0.75	0.379	
3.1.5 Students' participation in political discussions and elections	2.69	0.99	3.89	0.97	0.446	
3.1.6 Students' recognition of global issues, including global warming and conflicts	2.82	0.90	4.05	0.82	0.436	
3.1.7 Students' respect diversity and human values	3.24	0.91	4.37	0.76	0.349	
3.1.8 Students' willingness to make the world an equitable and sustainable place	3.09	0.94	4.26	0.80	0.379	
3.1.9 Students' responsibility for own actions	3.25	0.92	4.44	0.72	0.366	
3.2. Polical and government policy supports community involvement						
3.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	2.99	0.90	4.23	0.83	0.415	
3.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.05	0.86	4.23	0.81	0.387	
3.2.3 Students' respect for the law and social order	3.20	0.88	4.36	0.81	0.363	
3.2.4 Students' commitment to community and sustainable development	3.10	0.87	4.25	0.81	0.371	
3.2.5 Students' participation in political discussions and elections	2.79	1.02	3.96	1.02	0.419	
3.2.6 Students' recognition of global issues, including global warming and conflicts	2.94	0.88	4.13	0.85	0.405	
3.2.7 Students' respect diversity and human values	3.23	1.52	4.35	0.80	0.347	
3.2.8 Students' willingness to make the world an equitable and sustainable place	3.16	0.89	4.30	0.82	0.361	
3.2.9 Students' responsibility for own actions	3.27	0.90	4.43	0.75	0.355	
3.3. Economy supports community involvement						

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
3.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.05	0.85	4.31	0.76	0.413	
3.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.08	0.84	4.28	0.74	0.390	
3.3.3 Students' respect for the law and social order	3.17	0.85	4.37	0.75	0.379	
3.3.4 Students' commitment to community and sustainable development	3.04	0.83	4.25	0.77	0.398	
3.3.5 Students' participation in political discussions and elections	2.80	0.97	3.98	0.99	0.421	
3.3.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.86	4.17	0.84	0.390	
3.3.7 Students' respect diversity and human values	3.17	0.85	4.34	0.74	0.369	
3.3.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.87	4.31	0.76	0.368	
3.3.9 Students' responsibility for own actions	3.25	0.87	4.46	0.70	0.372	
3.4. Socio-culture supports community involvement						
3.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.05	0.83	4.30	0.76	0.410	
3.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.07	0.84	4.29	0.74	0.397	
3.4.3 Students' respect for the law and social order	3.15	0.82	4.35	0.75	0.381	
3.4.4 Students' commitment to community and sustainable development	3.06	0.85	4.27	0.78	0.395	
3.4.5 Students' participation in political discussions and elections	2.83	0.94	3.98	0.99	0.406	
3.4.6 Students' recognition of global issues, including global warming and conflicts	2.95	0.84	4.14	0.85	0.403	
3.4.7 Students' respect diversity and human values	3.18	0.84	4.37	0.76	0.374	
3.4.8 Students' willingness to make the world an equitable and sustainable place	3.12	0.84	4.29	0.76	0.375	
3.4.9 Students' responsibility for own actions	3.24	0.88	4.45	0.72	0.373	
3.5. Technology supports community involvement						
3.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.07	0.85	4.34	0.76	0.414	
3.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.14	0.82	4.33	0.75	0.379	
3.5.3 Students' respect for the law and social order	3.10	0.83	4.30	0.77	0.387	
3.5.4 Students' commitment to community and sustainable development	3.02	0.81	4.29	0.74	0.421	
3.5.5 Students' participation in political discussions and elections	2.80	0.92	3.99	0.97	0.425	
3.5.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.88	4.22	0.78	0.407	
3.5.7 Students' respect diversity and human values	3.19	0.85	4.35	0.75	0.364	
3.5.8 Students' willingness to make the world an equitable and sustainable place	3.12	0.86	4.29	0.77	0.375	
3.5.9 Students' responsibility for own actions	3.27	0.85	4.47	0.71	0.367	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
Academic management reform	3.16	0.65	4.31	0.56	0.364	
1. School curriculum and textbooks	3.21	0.65	4.33	0.57	0.349	
1.1. Internal factors affecting School curriculum and textbooks						
1.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.26	0.80	4.40	0.72	0.350	
1.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.27	0.81	4.38	0.69	0.339	
1.1.3 Students' respect for the law and social order	3.39	0.84	4.49	0.69	0.324	
1.1.4 Students' commitment to community and sustainable development	3.19	0.84	4.32	0.72	0.354	
1.1.5 Students' participation in political discussions and elections	2.74	0.94	3.92	0.97	0.431	
1.1.6 Students' recognition of global issues, including global warming and conflicts	3.03	0.89	4.17	0.80	0.376	
1.1.7 Students' respect diversity and human values	3.36	0.82	4.46	0.70	0.327	
1.1.8 Students' willingness to make the world an equitable and sustainable place	3.21	0.87	4.31	0.72	0.343	
1.1.9 Students' responsibility for own actions	3.46	0.84	4.53	0.68	0.309	
1.2. Polical and government policy supports the implementation of School curriculum and textbooks						
1.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.21	0.87	4.41	0.80	0.374	
1.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.32	0.86	4.45	0.71	0.340	
1.2.3 Students' respect for the law and social order	3.34	0.86	4.45	0.71	0.332	
1.2.4 Students' commitment to community and sustainable development	3.18	0.86	4.32	0.76	0.358	
1.2.5 Students' participation in political discussions and elections	2.88	0.97	4.05	0.96	0.406	
1.2.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.87	4.16	0.86	0.382	
1.2.7 Students' respect diversity and human values	3.37	0.91	4.47	0.74	0.326	
1.2.8 Students' willingness to make the world an equitable and sustainable place	3.26	0.91	4.37	0.76	0.340	
1.2.9 Students' responsibility for own actions	3.40	0.91	4.53	0.68	0.332	
1.3. Economy supports the implementation of School curriculum and textbooks						
1.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.19	0.81	4.36	0.74	0.367	
1.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.27	0.81	4.37	0.74	0.336	
1.3.3 Students' respect for the law and social order	3.28	0.80	4.45	0.73	0.357	
1.3.4 Students' commitment to community and sustainable development	3.16	0.82	4.31	0.77	0.364	
1.3.5 Students' participation in political discussions and elections	2.82	0.96	3.97	0.98	0.408	
1.3.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.85	4.19	0.82	0.397	
1.3.7 Students' respect diversity and human values	3.28	0.84	4.42	0.72	0.348	
1.3.8 Students' willingness to make the world an equitable and sustainable place	3.21	0.84	4.36	0.76	0.358	
1.3.9 Students' responsibility for own actions	3.39	0.85	4.52	0.70	0.333	
1.4. Socio-culture supports the implementation of School curriculum and textbooks						
1.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.13	0.81	4.32	0.78	0.380	
1.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.17	0.81	4.34	0.72	0.369	
1.4.3 Students' respect for the law and social order	3.25	0.79	4.41	0.68	0.357	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
1.4.4 Students' commitment to community and sustainable development	3.10	0.80	4.28	0.72	0.381	
1.4.5 Students' participation in political discussions and elections	2.86	0.93	4.00	0.97	0.399	
1.4.6 Students' recognition of global issues, including global warming and conflicts	2.95	0.86	4.18	0.80	0.417	
1.4.7 Students' respect diversity and human values	3.24	0.82	4.41	0.72	0.361	
1.4.8 Students' willingness to make the world an equitable and sustainable place	3.17	0.85	4.33	0.74	0.366	
1.4.9 Students' responsibility for own actions	3.31	0.85	4.49	0.67	0.356	
1.5 Technology supports the implementation of School curriculum and textbooks						
1.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.11	0.83	4.32	0.78	0.389	
1.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.13	0.84	4.30	0.79	0.374	
1.5.3 Students' respect for the law and social order	3.15	0.85	4.33	0.75	0.375	
1.5.4 Students' commitment to community and sustainable development	3.05	0.85	4.24	0.77	0.390	
1.5.5 Students' participation in political discussions and elections	2.80	0.94	3.99	0.97	0.425	
1.5.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.85	4.20	0.82	0.395	
1.5.7 Students' respect diversity and human values	3.23	0.86	4.37	0.75	0.353	
1.5.8 Students' willingness to make the world an equitable and sustainable place	3.16	0.87	4.30	0.78	0.361	
1.5.9 Students' responsibility for own actions	3.31	0.87	4.46	0.71	0.347	
2. Learning and teaching process	3.21	0.68	4.34	0.58	0.352	
2.1 Internal factors affecting learning and teaching process						
2.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.26	0.82	4.42	0.71	0.356	
2.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.29	0.81	4.41	0.72	0.340	
2.1.3 Students' respect for the law and social order	3.39	0.83	4.49	0.69	0.324	
2.1.4 Students' commitment to community and sustainable development	3.14	0.86	4.31	0.71	0.373	
2.1.5 Students' participation in political discussions and elections	2.73	0.93	3.92	0.97	0.436	
2.1.6 Students' recognition of global issues, including global warming and conflicts	3.02	0.92	4.16	0.82	0.377	
2.1.7 Students' respect diversity and human values	3.41	0.84	4.50	0.69	0.320	
2.1.8 Students' willingness to make the world an equitable and sustainable place	3.21	0.89	4.34	0.74	0.352	
2.1.9 Students' responsibility for own actions	3.45	0.89	4.55	0.66	0.319	
2.2. Polical and government policy supports the implementation of learning and teaching process						
2.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.19	0.87	4.35	0.78	0.364	
2.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.28	0.84	4.43	0.71	0.351	
2.2.3 Students' respect for the law and social order	3.35	0.87	4.49	0.72	0.340	
2.2.4 Students' commitment to community and sustainable development	3.16	0.85	4.34	0.77	0.373	
2.2.5 Students' participation in political discussions and elections	2.85	0.98	4.03	1.00	0.414	
2.2.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.89	4.17	0.85	0.390	
2.2.7 Students' respect diversity and human values	3.36	0.88	4.49	0.74	0.336	
2.2.8 Students' willingness to make the world an equitable and sustainable place	3.28	0.88	4.39	0.75	0.338	
2.2.9 Students' responsibility for own actions	3.41	0.89	4.53	0.71	0.328	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
2.3. Economy supports the learning and teaching process						
2.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.19	0.82	4.38	0.73	0.373	
2.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.23	0.79	4.38	0.71	0.356	
2.3.3 Students' respect for the law and social order	3.26	0.79	4.46	0.69	0.368	
2.3.4 Students' commitment to community and sustainable development	3.14	0.82	4.31	0.75	0.373	
2.3.5 Students' participation in political discussions and elections	2.86	0.96	4.01	0.98	0.402	
2.3.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.84	4.17	0.84	0.385	
2.3.7 Students' respect diversity and human values	3.23	0.83	4.41	0.73	0.365	
2.3.8 Students' willingness to make the world an equitable and sustainable place	3.16	0.85	4.31	0.75	0.364	
2.3.9 Students' responsibility for own actions	3.32	0.85	4.50	0.70	0.355	
2.4. Socio-culture supports the learning and teaching process						
2.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.17	0.81	4.35	0.75	0.372	
2.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.20	0.81	4.37	0.70	0.366	
2.4.3 Students' respect for the law and social order	3.26	0.79	4.40	0.71	0.350	
2.4.4 Students' commitment to community and sustainable development	3.13	0.81	4.30	0.76	0.374	
2.4.5 Students' participation in political discussions and elections	2.82	0.93	3.96	0.97	0.404	
2.4.6 Students' recognition of global issues, including global warming and conflicts	2.99	0.86	4.18	0.81	0.398	
2.4.7 Students' respect diversity and human values	3.23	0.82	4.39	0.73	0.359	
2.4.8 Students' willingness to make the world an equitable and sustainable place	3.17	0.84	4.33	0.75	0.366	
2.4.9 Students' responsibility for own actions	3.33	0.81	4.50	0.67	0.351	
2.5. Technology supports the learning and teaching process						
2.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.08	0.85	4.34	0.80	0.409	
2.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.12	0.83	4.29	0.75	0.375	
2.5.3 Students' respect for the law and social order	3.16	0.85	4.33	0.77	0.370	
2.5.4 Students' commitment to community and sustainable development	3.05	0.83	4.26	0.77	0.397	
2.5.5 Students' participation in political discussions and elections	2.83	0.92	3.99	0.98	0.410	
2.5.6 Students' recognition of global issues, including global warming and conflicts	3.03	0.86	4.19	0.80	0.383	
2.5.7 Students' respect diversity and human values	3.22	0.85	4.38	0.75	0.360	
2.5.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.88	4.34	0.77	0.378	
2.5.9 Students' responsibility for own actions	3.28	0.86	4.47	0.72	0.363	
3. Student assessment	3.08	0.74	4.26	0.64	0.383	
3.1. Internal factors affecting student assessment						
3.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.12	0.86	4.32	0.75	0.385	
3.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.12	0.86	4.29	0.75	0.375	
3.1.3 Students' respect for the law and social order	3.26	0.88	4.41	0.77	0.353	
3.1.4 Students' commitment to community and sustainable development	3.02	0.88	4.24	0.79	0.404	
3.1.5 Students' participation in political discussions and elections	2.61	0.99	3.85	1.01	0.475	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
3.1.6 Students' recognition of global issues, including global warming and conflicts	2.88	0.95	4.07	0.89	0.413	
3.1.7 Students' respect diversity and human values	3.25	0.89	4.37	0.76	0.345	
3.1.8 Students' willingness to make the world an equitable and sustainable place	3.08	0.92	4.24	0.79	0.377	
3.1.9 Students' responsibility for own actions	3.32	0.93	4.49	0.74	0.352	
3.2. Polical and government policy supports student assessment						
3.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.14	0.86	4.34	0.79	0.382	
3.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.13	0.83	4.27	0.76	0.364	
3.2.3 Students' respect for the law and social order	3.28	0.84	4.42	0.73	0.348	
3.2.4 Students' commitment to community and sustainable development	3.07	0.86	4.25	0.80	0.384	
3.2.5 Students' participation in political discussions and elections	2.77	0.97	3.94	0.99	0.422	
3.2.6 Students' recognition of global issues, including global warming and conflicts	2.95	0.88	4.13	0.85	0.400	
3.2.7 Students' respect diversity and human values	3.30	0.86	4.39	0.79	0.330	
3.2.8 Students' willingness to make the world an equitable and sustainable place	3.17	0.88	4.31	0.81	0.360	
3.2.9 Students' responsibility for own actions	3.36	0.87	4.52	0.68	0.345	
3.3. Economy supports student assessment						
3.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.11	0.86	4.32	0.79	0.389	
3.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.18	0.81	4.30	0.74	0.352	
3.3.3 Students' respect for the law and social order	3.19	0.83	4.38	0.74	0.373	
3.3.4 Students' commitment to community and sustainable development	3.07	0.86	4.25	0.77	0.384	
3.3.5 Students' participation in political discussions and elections	2.78	0.96	3.95	0.99	0.421	
3.3.6 Students' recognition of global issues, including global warming and conflicts	2.97	0.88	4.16	0.85	0.401	
3.3.7 Students' respect diversity and human values	3.22	0.85	4.35	0.76	0.351	
3.3.8 Students' willingness to make the world an equitable and sustainable place	3.17	0.86	4.31	0.78	0.360	
3.3.9 Students' responsibility for own actions	3.31	0.85	4.49	0.70	0.356	
3.4. Socio-culture supports student assessment						
3.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.13	0.79	4.31	0.74	0.377	
3.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.15	0.78	4.31	0.73	0.368	
3.4.3 Students' respect for the law and social order	3.20	0.81	4.34	0.75	0.356	
3.4.4 Students' commitment to community and sustainable development	3.07	0.81	4.25	0.75	0.384	
3.4.5 Students' participation in political discussions and elections	2.78	0.95	3.95	1.00	0.421	
3.4.6 Students' recognition of global issues, including global warming and conflicts	2.98	0.84	4.15	0.84	0.393	
3.4.7 Students' respect diversity and human values	3.21	0.82	4.36	0.73	0.358	
3.4.8 Students' willingness to make the world an equitable and sustainable place	3.13	0.84	4.29	0.77	0.371	
3.4.9 Students' responsibility for own actions	3.29	0.84	4.45	0.70	0.353	
3.5. Technology supports student assessment						
3.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.12	0.81	4.35	0.75	0.394	
3.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.17	0.79	4.34	0.75	0.369	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
3.5.3 Students' respect for the law and social order	3.16	0.84	4.33	0.76	0.370	
3.5.4 Students' commitment to community and sustainable development	3.04	0.82	4.28	0.78	0.408	
3.5.5 Students' participation in political discussions and elections	2.81	0.94	3.99	0.98	0.420	
3.5.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.85	4.20	0.83	0.400	
3.5.7 Students' respect diversity and human values	3.20	0.83	4.36	0.75	0.363	
3.5.8 Students' willingness to make the world an equitable and sustainable place	3.12	0.86	4.32	0.76	0.385	
3.5.9 Students' responsibility for own actions	3.28	0.83	4.50	0.71	0.372	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
Education financial management reform	3.04	0.69	4.22	0.64	0.388	
1. Financial allocations linking budget to education policies	3.07	0.72	4.24	0.67	0.381	
1.1 Internal factors affecting the financial allocations linking budget to education policies						
1.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.10	0.89	4.33	0.78	0.397	
1.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.09	0.86	4.27	0.81	0.382	
1.1.3 Students' respect for the law and social order	3.12	0.86	4.30	0.80	0.378	
1.1.4 Students' commitment to community and sustainable development	3.05	0.86	4.22	0.83	0.384	
1.1.5 Students' participation in political discussions and elections	2.68	0.98	3.90	1.02	0.455	
1.1.6 Students' recognition of global issues, including global warming and conflicts	2.93	0.92	4.12	0.89	0.406	
1.1.7 Students' respect diversity and human values	3.24	0.90	4.36	0.80	0.346	
1.1.8 Students' willingness to make the world an equitable and sustainable place	3.11	0.88	4.28	0.80	0.376	
1.1.9 Students' responsibility for own actions	3.29	0.89	4.42	0.75	0.343	
1.2. Polical and government policy supports the financial allocations linking budget to education policies						
1.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.13	0.86	4.39	0.75	0.403	
1.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.13	0.83	4.34	0.75	0.387	
1.2.3 Students' respect for the law and social order	3.23	0.86	4.39	0.76	0.359	
1.2.4 Students' commitment to community and sustainable development	3.09	0.84	4.29	0.78	0.388	
1.2.5 Students' participation in political discussions and elections	2.78	0.99	3.98	1.02	0.432	
1.2.6 Students' recognition of global issues, including global warming and conflicts	2.95	0.85	4.14	0.85	0.403	
1.2.7 Students' respect diversity and human values	3.25	0.85	4.39	0.75	0.351	
1.2.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.88	4.31	0.80	0.368	
1.2.9 Students' responsibility for own actions	3.30	0.89	4.49	0.72	0.361	
1.3. Economy supports the financial allocations linking budget to education policies						
1.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.16	0.82	4.37	0.73	0.383	
1.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.12	0.80	4.33	0.75	0.388	
1.3.3 Students' respect for the law and social order	3.18	0.83	4.35	0.75	0.368	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
1.3.4 Students' commitment to community and sustainable development	3.05	0.87	4.24	0.79	0.390	
1.3.5 Students' participation in political discussions and elections	2.79	0.96	3.99	1.00	0.430	
1.3.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.85	4.18	0.84	0.389	
1.3.7 Students' respect diversity and human values	3.21	0.80	4.36	0.75	0.358	
1.3.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.86	4.31	0.78	0.368	
1.3.9 Students' responsibility for own actions	3.31	0.86	4.48	0.70	0.353	
1.4. Socio-culture supports the financial allocations linking budget to education policies						
1.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.14	0.78	4.36	0.73	0.389	
1.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.16	0.80	4.34	0.74	0.373	
1.4.3 Students' respect for the law and social order	3.21	0.79	4.37	0.73	0.361	
1.4.4 Students' commitment to community and sustainable development	3.15	0.81	4.30	0.76	0.365	
1.4.5 Students' participation in political discussions and elections	2.83	0.94	3.98	0.96	0.406	
1.4.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.83	4.19	0.81	0.392	
1.4.7 Students' respect diversity and human values	3.21	0.82	4.36	0.74	0.358	
1.4.8 Students' willingness to make the world an equitable and sustainable place	3.18	0.85	4.34	0.74	0.365	
1.4.9 Students' responsibility for own actions	3.30	0.81	4.47	0.67	0.355	
1.5 Technology supports the financial allocations linking budget to education policies						
1.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.14	0.81	4.36	0.74	0.389	
1.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.10	0.80	4.29	0.74	0.384	
1.5.3 Students' respect for the law and social order	3.18	0.79	4.34	0.73	0.365	
1.5.4 Students' commitment to community and sustainable development	3.07	0.81	4.26	0.76	0.388	
1.5.5 Students' participation in political discussions and elections	2.81	0.94	4.01	0.95	0.427	
1.5.6 Students' recognition of global issues, including global warming and conflicts	3.03	0.84	4.21	0.79	0.389	
1.5.7 Students' respect diversity and human values	3.22	0.81	4.40	0.72	0.366	
1.5.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.85	4.34	0.73	0.378	
1.5.9 Students' responsibility for own actions	3.30	0.83	4.49	0.69	0.361	
2. Increased financial autonomy and accountability of schools	3.04	0.73	4.22	0.68	0.388	
2.1 Internal factors affecting the increased financial autonomy and accountability of schools						
2.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.08	0.89	4.29	0.79	0.393	
2.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.07	0.88	4.25	0.78	0.384	
2.1.3 Students' respect for the law and social order	3.15	0.89	4.33	0.80	0.375	
2.1.4 Students' commitment to community and sustainable development	3.05	0.89	4.24	0.83	0.390	
2.1.5 Students' participation in political discussions and elections	2.66	0.99	3.85	1.03	0.447	
2.1.6 Students' recognition of global issues, including global warming and conflicts	2.90	0.90	4.09	0.88	0.410	
2.1.7 Students' respect diversity and human values	3.21	0.89	4.36	0.80	0.358	
2.1.8 Students' willingness to make the world an equitable and sustainable place	3.02	0.88	4.19	0.87	0.387	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/ W
	mean	S.D	mean	S.D		O/T
2.1.9 Students' responsibility for own actions	3.23	0.91	4.42	0.74	0.368	
2.2. Polical and government policy supports the increased financial autonomy and accountability of schools						
2.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.06	0.86	4.30	0.80	0.405	
2.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.10	0.85	4.26	0.82	0.374	
2.2.3 Students' respect for the law and social order	3.17	0.85	4.33	0.78	0.366	
2.2.4 Students' commitment to community and sustainable development	3.06	0.86	4.27	0.80	0.395	
2.2.5 Students' participation in political discussions and elections	2.74	0.97	3.91	1.02	0.427	
2.2.6 Students' recognition of global issues, including global warming and conflicts	2.94	0.87	4.12	0.86	0.401	
2.2.7 Students' respect diversity and human values	3.23	0.85	4.35	0.77	0.347	
2.2.8 Students' willingness to make the world an equitable and sustainable place	3.12	0.91	4.27	0.80	0.369	
2.2.9 Students' responsibility for own actions	3.28	0.87	4.45	0.72	0.357	
2.3. Economy supports the increased financial autonomy and accountability of schools						
2.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.07	0.83	4.28	0.76	0.394	
2.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.11	0.83	4.30	0.79	0.383	
2.3.3 Students' respect for the law and social order	3.16	0.85	4.34	0.77	0.373	
2.3.4 Students' commitment to community and sustainable development	3.00	0.84	4.22	0.79	0.407	
2.3.5 Students' participation in political discussions and elections	2.76	0.96	3.96	1.00	0.435	
2.3.6 Students' recognition of global issues, including global warming and conflicts	2.94	0.87	4.14	0.85	0.408	
2.3.7 Students' respect diversity and human values	3.18	0.86	4.34	0.77	0.365	
2.3.8 Students' willingness to make the world an equitable and sustainable place	3.13	0.86	4.28	0.78	0.367	
2.3.9 Students' responsibility for own actions	3.27	0.88	4.44	0.74	0.358	
2.4. Socio-culture supports the increased financial autonomy and accountability of schools						
2.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.06	0.81	4.30	0.76	0.405	
2.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.09	0.82	4.28	0.75	0.385	
2.4.3 Students' respect for the law and social order	3.14	0.84	4.31	0.76	0.373	
2.4.4 Students' commitment to community and sustainable development	3.06	0.83	4.21	0.80	0.376	
2.4.5 Students' participation in political discussions and elections	2.77	0.94	3.94	0.98	0.422	
2.4.6 Students' recognition of global issues, including global warming and conflicts	2.96	0.84	4.16	0.85	0.405	
2.4.7 Students' respect diversity and human values	3.17	0.84	4.32	0.76	0.363	
2.4.8 Students' willingness to make the world an equitable and sustainable place	3.14	0.83	4.32	0.75	0.376	
2.4.9 Students' responsibility for own actions	3.28	0.84	4.46	0.70	0.360	
2.5. Technology supports the increased financial autonomy and accountability of schools						
2.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.11	0.82	4.33	0.74	0.392	
2.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.13	0.79	4.32	0.73	0.380	
2.5.3 Students' respect for the law and social order	3.14	0.82	4.32	0.75	0.376	
2.5.4 Students' commitment to community and sustainable development	3.03	0.81	4.22	0.78	0.393	
2.5.5 Students' participation in political discussions and elections	2.79	0.92	3.96	0.95	0.419	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
2.5.6 Students' recognition of global issues, including global warming and conflicts	2.97	0.84	4.18	0.79	0.407	
2.5.7 Students' respect diversity and human values	3.20	0.83	4.38	0.74	0.369	
2.5.8 Students' willingness to make the world an equitable and sustainable place	3.10	0.84	4.31	0.75	0.390	
2.5.9 Students' responsibility for own actions	3.27	0.82	4.45	0.71	0.361	
3. Education budget audit	3.03	0.74	4.20	0.68	0.386	
3.1. Internal factors affecting the education budget audit						
3.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.03	0.86	4.24	0.80	0.399	
3.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.05	0.86	4.21	0.81	0.380	
3.1.3 Students' respect for the law and social order	3.13	0.92	4.30	0.81	0.374	
3.1.4 Students' commitment to community and sustainable development	3.05	0.89	4.22	0.81	0.384	
3.1.5 Students' participation in political discussions and elections	2.63	1.00	3.78	1.03	0.437	
3.1.6 Students' recognition of global issues, including global warming and conflicts	2.87	0.92	4.06	0.90	0.415	
3.1.7 Students' respect diversity and human values	3.17	0.93	4.33	0.81	0.366	
3.1.8 Students' willingness to make the world an equitable and sustainable place	3.08	0.92	4.24	0.81	0.377	
3.1.9 Students' responsibility for own actions	3.22	0.89	4.37	0.77	0.357	
3.2. Polical and government policy supports the education budget audit						
3.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.12	0.86	4.32	.773	0.385	
3.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.12	0.84	4.28	.767	0.372	
3.2.3 Students' respect for the law and social order	3.16	0.86	4.33	.765	0.370	
3.2.4 Students' commitment to community and sustainable development	3.06	0.87	4.24	.806	0.386	
3.2.5 Students' participation in political discussions and elections	2.71	0.97	3.89	1.009	0.435	
3.2.6 Students' recognition of global issues, including global warming and conflicts	2.90	0.90	4.12	.862	0.421	
3.2.7 Students' respect diversity and human values	3.19	0.89	4.35	.794	0.364	
3.2.8 Students' willingness to make the world an equitable and sustainable place	3.11	0.88	4.27	.806	0.373	
3.2.9 Students' responsibility for own actions	3.30	0.90	4.45	.740	0.348	
3.3. Economy supports the education budget audit						
3.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.08	0.81	4.31	.791	0.399	
3.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.08	0.83	4.26	.800	0.383	
3.3.3 Students' respect for the law and social order	3.14	0.85	4.34	.761	0.382	
3.3.4 Students' commitment to community and sustainable development	3.02	0.84	4.23	.807	0.401	
3.3.5 Students' participation in political discussions and elections	2.77	0.99	3.96	1.005	0.430	
3.3.6 Students' recognition of global issues, including global warming and conflicts	2.94	0.86	4.14	.858	0.408	
3.3.7 Students' respect diversity and human values	3.13	0.84	4.27	.777	0.364	
3.3.8 Students' willingness to make the world an equitable and sustainable place	3.10	0.85	4.25	.816	0.371	
3.3.9 Students' responsibility for own actions	3.27	0.86	4.43	.719	0.355	
3.4. Socio-culture supports the education budget audit						
3.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.08	0.84	4.30	.749	0.396	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
3.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.08	0.83	4.29	.757	0.393	
3.4.3 Students' respect for the law and social order	3.17	0.83	4.35	.746	0.372	
3.4.4 Students' commitment to community and sustainable development	3.00	0.81	4.18	.771	0.393	
3.4.5 Students' participation in political discussions and elections	2.80	0.93	3.94	.978	0.407	
3.4.6 Students' recognition of global issues, including global warming and conflicts	2.92	0.82	4.10	.819	0.404	
3.4.7 Students' respect diversity and human values	3.16	0.84	4.31	.763	0.364	
3.4.8 Students' willingness to make the world an equitable and sustainable place	3.12	0.83	4.28	.788	0.372	
3.4.9 Students' responsibility for own actions	3.26	0.85	4.42	.711	0.356	
3.5. Technology supports the education budget audit						
3.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.12	0.81	4.38	.730	0.404	
3.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.09	0.81	4.28	.773	0.385	
3.5.3 Students' respect for the law and social order	3.14	0.83	4.33	.769	0.379	
3.5.4 Students' commitment to community and sustainable development	3.04	0.82	4.23	.763	0.391	
3.5.5 Students' participation in political discussions and elections	2.79	0.92	4.00	.944	0.434	
3.5.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.88	4.20	.834	0.395	
3.5.7 Students' respect diversity and human values	3.21	0.84	4.37	.762	0.361	
3.5.8 Students' willingness to make the world an equitable and sustainable place	3.14	0.85	4.31	.736	0.373	
3.5.9 Students' responsibility for own actions	3.26	0.83	4.48	.703	0.374	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
Human resources management reform	3.19	0.66	4.33	0.57	0.357	
1. Increase PRESET teacher qualifications	3.23	0.72	4.38	0.58	0.356	
Internal factors affecting the increase of PRESET teacher qualifications						
1.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.35	0.82	4.54	0.64	0.355	
1.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.32	0.85	4.46	0.68	0.343	
1.1.3 Students' respect for the law and social order	3.36	0.84	4.48	0.67	0.333	
1.1.4 Students' commitment to community and sustainable development	3.18	0.85	4.34	0.72	0.365	
1.1.5 Students' participation in political discussions and elections	2.77	0.99	3.97	1.01	0.433	
1.1.6 Students' recognition of global issues, including global warming and conflicts	3.04	0.92	4.22	0.83	0.388	
1.1.7 Students' respect diversity and human values	3.38	0.88	4.50	0.68	0.331	
1.1.8 Students' willingness to make the world an equitable and sustainable place	3.23	0.87	4.35	0.76	0.347	
1.1.9 Students' responsibility for own actions	3.42	0.90	4.55	0.64	0.330	
1.2. Polical and government policy supports the increase of PRESET teacher qualifications						
1.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.24	0.84	4.43	0.74	0.367	
1.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.20	0.81	4.39	0.70	0.372	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
1.2.3 Students' respect for the law and social order	3.26	0.86	4.42	0.71	0.356	
1.2.4 Students' commitment to community and sustainable development	3.11	0.86	4.29	0.77	0.379	
1.2.5 Students' participation in political discussions and elections	2.81	0.97	3.97	1.00	0.413	
1.2.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.89	4.17	0.84	0.390	
1.2.7 Students' respect diversity and human values	3.28	0.84	4.39	0.73	0.338	
1.2.8 Students' willingness to make the world an equitable and sustainable place	3.23	0.89	4.32	0.75	0.337	
1.2.9 Students' responsibility for own actions	3.37	0.88	4.50	0.67	0.335	
1.3. Economy supports the increase of PRESET teacher qualifications						
1.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.18	0.84	4.40	0.72	0.384	
1.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.19	0.81	4.39	0.71	0.376	
1.3.3 Students' respect for the law and social order	3.22	0.82	4.40	0.73	0.366	
1.3.4 Students' commitment to community and sustainable development	3.09	0.84	4.29	0.76	0.388	
1.3.5 Students' participation in political discussions and elections	2.80	0.96	3.99	0.98	0.425	
1.3.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.85	4.21	0.81	0.399	
1.3.7 Students' respect diversity and human values	3.24	0.86	4.38	0.75	0.352	
1.3.8 Students' willingness to make the world an equitable and sustainable place	3.17	0.87	4.30	0.78	0.356	
1.3.9 Students' responsibility for own actions	3.33	0.89	4.49	0.73	0.348	
1.4. Socio-culture supports the increase of PRESET teacher qualifications						
1.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.16	0.83	4.37	0.75	0.383	
1.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.19	0.79	4.38	0.74	0.373	
1.4.3 Students' respect for the law and social order	3.22	0.80	4.37	0.74	0.357	
1.4.4 Students' commitment to community and sustainable development	3.11	0.80	4.29	0.77	0.379	
1.4.5 Students' participation in political discussions and elections	2.82	0.95	3.98	1.00	0.411	
1.4.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.81	4.20	0.82	0.395	
1.4.7 Students' respect diversity and human values	3.23	0.82	4.39	0.74	0.359	
1.4.8 Students' willingness to make the world an equitable and sustainable place	3.20	0.83	4.32	0.79	0.350	
1.4.9 Students' responsibility for own actions	3.29	0.84	4.50	0.70	0.368	
1.5 Technology supports the increase of PRESET teacher qualifications						
1.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.18	0.85	4.45	0.70	0.399	
1.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.19	0.83	4.40	0.71	0.379	
1.5.3 Students' respect for the law and social order	3.19	0.84	4.38	0.74	0.373	
1.5.4 Students' commitment to community and sustainable development	3.08	0.83	4.30	0.76	0.396	
1.5.5 Students' participation in political discussions and elections	2.84	0.95	4.04	0.94	0.423	
1.5.6 Students' recognition of global issues, including global warming and conflicts	3.04	0.88	4.25	0.78	0.398	
1.5.7 Students' respect diversity and human values	3.25	0.87	4.41	0.74	0.357	
1.5.8 Students' willingness to make the world an equitable and sustainable place	3.20	0.87	4.39	0.73	0.372	
1.5.9 Students' responsibility for own actions	3.30	0.86	4.51	0.68	0.367	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
2. Provide INSET training	3.19	0.69	4.34	0.62	0.361	
2.1 Internal factors affecting the provision of INSET training						
2.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.34	0.81	4.51	0.67	0.350	
2.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.26	0.82	4.41	0.72	0.353	
2.1.3 Students' respect for the law and social order	3.30	0.85	4.46	0.71	0.352	
2.1.4 Students' commitment to community and sustainable development	3.07	0.83	4.26	0.76	0.388	
2.1.5 Students' participation in political discussions and elections	2.74	0.93	3.89	1.00	0.420	
2.1.6 Students' recognition of global issues, including global warming and conflicts	3.02	0.88	4.21	0.82	0.394	
2.1.7 Students' respect diversity and human values	3.36	0.83	4.43	0.75	0.318	
2.1.8 Students' willingness to make the world an equitable and sustainable place	3.19	0.85	4.31	0.80	0.351	
2.1.9 Students' responsibility for own actions	3.38	0.88	4.50	0.72	0.331	
2.2. Polical and government policy supports the provision of INSET training						
2.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.20	0.85	4.41	0.72	0.378	
2.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.21	0.82	4.36	0.73	0.358	
2.2.3 Students' respect for the law and social order	3.25	0.83	4.41	0.73	0.357	
2.2.4 Students' commitment to community and sustainable development	3.15	0.85	4.30	0.75	0.365	
2.2.5 Students' participation in political discussions and elections	2.81	0.97	3.99	0.96	0.420	
2.2.6 Students' recognition of global issues, including global warming and conflicts	3.04	0.85	4.19	0.83	0.378	
2.2.7 Students' respect diversity and human values	3.33	0.84	4.43	0.70	0.330	
2.2.8 Students' willingness to make the world an equitable and sustainable place	3.22	0.87	4.37	0.76	0.357	
2.2.9 Students' responsibility for own actions	3.36	0.87	4.52	0.68	0.345	
2.3. Economy supports the provision of INSET training						
2.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.18	0.83	4.41	0.73	0.387	
2.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.18	0.84	4.37	0.74	0.374	
2.3.3 Students' respect for the law and social order	3.19	0.83	4.36	0.75	0.367	
2.3.4 Students' commitment to community and sustainable development	3.08	0.81	4.26	0.76	0.383	
2.3.5 Students' participation in political discussions and elections	2.78	0.95	3.99	0.96	0.435	
2.3.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.84	4.20	0.81	0.400	
2.3.7 Students' respect diversity and human values	3.19	0.83	4.39	0.72	0.376	
2.3.8 Students' willingness to make the world an equitable and sustainable place	3.14	0.86	4.32	0.77	0.376	
2.3.9 Students' responsibility for own actions	3.31	0.84	4.47	0.71	0.350	
2.4. Socio-culture supports the provision of INSET training						
2.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.10	0.82	4.38	0.73	0.413	
2.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.15	0.83	4.36	0.73	0.384	
2.4.3 Students' respect for the law and social order	3.16	0.81	4.38	0.74	0.386	
2.4.4 Students' commitment to community and sustainable development	3.22	0.81	4.23	0.77	0.314	
2.4.5 Students' participation in political discussions and elections	3.08	0.79	3.98	0.98	0.292	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
2.4.6 Students' recognition of global issues, including global warming and conflicts	2.79	0.91	4.16	0.84	0.491	
2.4.7 Students' respect diversity and human values	2.99	0.85	4.41	0.72	0.475	
2.4.8 Students' willingness to make the world an equitable and sustainable place	3.23	0.84	4.30	0.77	0.331	
2.4.9 Students' responsibility for own actions	3.18	0.85	4.46	0.72	0.403	
2.5. Technology supports the provision of INSET training						
2.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.17	0.82	4.41	0.70	0.391	
2.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.16	0.84	4.34	0.73	0.373	
2.5.3 Students' respect for the law and social order	3.20	0.83	4.36	0.74	0.363	
2.5.4 Students' commitment to community and sustainable development	3.08	0.85	4.29	0.78	0.393	
2.5.5 Students' participation in political discussions and elections	2.82	0.94	4.02	0.94	0.426	
2.5.6 Students' recognition of global issues, including global warming and conflicts	3.04	0.90	4.23	0.81	0.391	
2.5.7 Students' respect diversity and human values	3.19	0.83	4.39	0.75	0.376	
2.5.8 Students' willingness to make the world an equitable and sustainable place	3.18	0.87	4.35	0.75	0.368	
2.5.9 Students' responsibility for own actions	3.30	0.88	4.53	0.67	0.373	
3. Introduction of teacher performance assessment	3.16	0.70	4.28	0.63	0.354	
3.1. Internal factors affecting the teacher performance assessment						
3.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.28	0.83	4.30	0.88	0.311	
3.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.20	0.82	4.31	0.75	0.347	
3.1.3 Students' respect for the law and social order	3.26	0.85	4.40	0.73	0.350	
3.1.4 Students' commitment to community and sustainable development	3.14	0.84	4.26	0.77	0.357	
3.1.5 Students' participation in political discussions and elections	2.73	0.97	3.88	1.01	0.421	
3.1.6 Students' recognition of global issues, including global warming and conflicts	2.98	0.86	4.14	0.87	0.389	
3.1.7 Students' respect diversity and human values	3.33	0.84	4.42	0.75	0.327	
3.1.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.86	4.27	0.79	0.356	
3.1.9 Students' responsibility for own actions	3.37	0.87	4.50	0.74	0.335	
3.2. Polical and government policy supports the teacher performance assessment						
3.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.14	0.85	4.33	0.76	0.379	
3.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.17	0.81	4.35	0.73	0.372	
3.2.3 Students' respect for the law and social order	3.23	0.83	4.35	0.77	0.347	
3.2.4 Students' commitment to community and sustainable development	3.09	0.86	4.26	0.79	0.379	
3.2.5 Students' participation in political discussions and elections	2.82	0.96	3.94	0.99	0.397	
3.2.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.86	4.15	0.83	0.383	
3.2.7 Students' respect diversity and human values	3.25	0.83	4.39	0.74	0.351	
3.2.8 Students' willingness to make the world an equitable and sustainable place	3.20	0.86	4.34	0.77	0.356	
3.2.9 Students' responsibility for own actions	3.34	0.85	4.50	0.70	0.347	
3.3. Economy supports the teacher performance assessment						
3.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.18	0.83	4.36	0.75	0.371	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
3.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.18	0.84	4.31	0.73	0.355	
3.3.3 Students' respect for the law and social order	3.19	0.83	4.35	0.73	0.364	
3.3.4 Students' commitment to community and sustainable development	3.08	0.81	4.22	0.78	0.370	
3.3.5 Students' participation in political discussions and elections	2.78	0.95	3.93	1.03	0.414	
3.3.6 Students' recognition of global issues, including global warming and conflicts	3.00	0.84	4.15	0.84	0.383	
3.3.7 Students' respect diversity and human values	3.19	0.83	4.37	0.72	0.370	
3.3.8 Students' willingness to make the world an equitable and sustainable place	3.14	0.86	4.29	0.75	0.366	
3.3.9 Students' responsibility for own actions	3.31	0.84	4.46	0.69	0.347	
3.4. Socio-culture supports the teacher performance assessment						
3.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.15	0.79	4.34	0.75	0.378	
3.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.14	0.79	4.34	0.73	0.382	
3.4.3 Students' respect for the law and social order	3.21	0.80	4.34	0.73	0.352	
3.4.4 Students' commitment to community and sustainable development	3.09	0.81	4.25	0.76	0.375	
3.4.5 Students' participation in political discussions and elections	2.79	0.95	3.95	1.01	0.416	
3.4.6 Students' recognition of global issues, including global warming and conflicts	2.99	0.83	4.18	0.82	0.398	
3.4.7 Students' respect diversity and human values	3.22	0.83	4.38	0.73	0.360	
3.4.8 Students' willingness to make the world an equitable and sustainable place	3.13	0.83	4.29	0.77	0.371	
3.4.9 Students' responsibility for own actions	3.32	0.80	4.49	0.68	0.352	
3.5. Technology supports the teacher performance assessment						
3.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.14	0.84	4.35	0.74	0.385	
3.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.15	0.81	4.33	0.75	0.375	
3.5.3 Students' respect for the law and social order	3.18	0.85	4.36	0.75	0.371	
3.5.4 Students' commitment to community and sustainable development	3.04	0.80	4.27	0.75	0.405	
3.5.5 Students' participation in political discussions and elections	2.83	0.93	4.01	0.96	0.417	
3.5.6 Students' recognition of global issues, including global warming and conflicts	3.02	0.87	4.22	0.81	0.397	
3.5.7 Students' respect diversity and human values	3.22	0.83	4.39	0.74	0.363	
3.5.8 Students' willingness to make the world an equitable and sustainable place	3.16	0.87	4.34	0.75	0.373	
3.5.9 Students' responsibility for own actions	3.30	0.85	4.50	0.69	0.364	

Education management reform strategies for enhancing the quality citizenship in Cambodia	Current state		Desirable state		PNI Modified	S/W
	mean	S.D	mean	S.D		O/T
Education financial management reform	3.04	0.69	4.22	0.64	0.388	
1. Financial allocations linking budget to education policies	3.07	0.72	4.24	0.67	0.381	
1.1 Internal factors affecting the financial allocations linking budget to education policies						
1.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.10	0.89	4.33	0.78	0.397	
1.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.09	0.86	4.27	0.81	0.382	
1.1.3 Students' respect for the law and social order	3.12	0.86	4.30	0.80	0.378	
1.1.4 Students' commitment to community and sustainable development	3.05	0.86	4.22	0.83	0.384	
1.1.5 Students' participation in political discussions and elections	2.68	0.98	3.90	1.02	0.455	
1.1.6 Students' recognition of global issues, including global warming and conflicts	2.93	0.92	4.12	0.89	0.406	
1.1.7 Students' respect diversity and human values	3.24	0.90	4.36	0.80	0.346	
1.1.8 Students' willingness to make the world an equitable and sustainable place	3.11	0.88	4.28	0.80	0.376	
1.1.9 Students' responsibility for own actions	3.29	0.89	4.42	0.75	0.343	
1.2. Polical and government policy supports the financial allocations linking budget to education policies						
1.2.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.13	0.86	4.39	0.75	0.403	
1.2.2 Students' critical thinking, problem solving, communication skills and life skills	3.13	0.83	4.34	0.75	0.387	
1.2.3 Students' respect for the law and social order	3.23	0.86	4.39	0.76	0.359	
1.2.4 Students' commitment to community and sustainable development	3.09	0.84	4.29	0.78	0.388	

1.2.5 Students' participation in political discussions and elections	2.78	0.99	3.98	1.02	0.432	
1.2.6 Students' recognition of global issues, including global warming and conflicts	2.95	0.85	4.14	0.85	0.403	
1.2.7 Students' respect diversity and human values	3.25	0.85	4.39	0.75	0.351	
1.2.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.88	4.31	0.80	0.368	
1.2.9 Students' responsibility for own actions	3.30	0.89	4.49	0.72	0.361	
1.3. Economy supports the financial allocations linking budget to education policies						
1.3.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.16	0.82	4.37	0.73	0.383	
1.3.2 Students' critical thinking, problem solving, communication skills and life skills	3.12	0.80	4.33	0.75	0.388	
1.3.3 Students' respect for the law and social order	3.18	0.83	4.35	0.75	0.368	
1.3.4 Students' commitment to community and sustainable development	3.05	0.87	4.24	0.79	0.390	
1.3.5 Students' participation in political discussions and elections	2.79	0.96	3.99	1.00	0.430	
1.3.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.85	4.18	0.84	0.389	
1.3.7 Students' respect diversity and human values	3.21	0.80	4.36	0.75	0.358	
1.3.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.86	4.31	0.78	0.368	
1.3.9 Students' responsibility for own actions	3.31	0.86	4.48	0.70	0.353	
1.4. Socio-culture supports the financial allocations linking budget to education policies						
1.4.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.14	0.78	4.36	0.73	0.389	
1.4.2 Students' critical thinking, problem solving, communication skills and life skills	3.16	0.80	4.34	0.74	0.373	
1.4.3 Students' respect for the law and social order	3.21	0.79	4.37	0.73	0.361	

1.4.4 Students' commitment to community and sustainable development	3.15	0.81	4.30	0.76	0.365	
1.4.5 Students' participation in political discussions and elections	2.83	0.94	3.98	0.96	0.406	
1.4.6 Students' recognition of global issues, including global warming and conflicts	3.01	0.83	4.19	0.81	0.392	
1.4.7 Students' respect diversity and human values	3.21	0.82	4.36	0.74	0.358	
1.4.8 Students' willingness to make the world an equitable and sustainable place	3.18	0.85	4.34	0.74	0.365	
1.4.9 Students' responsibility for own actions	3.30	0.81	4.47	0.67	0.355	
1.5 Technology supports the financial allocations linking budget to education policies						
1.5.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.14	0.81	4.36	0.74	0.389	
1.5.2 Students' critical thinking, problem solving, communication skills and life skills	3.10	0.80	4.29	0.74	0.384	
1.5.3 Students' respect for the law and social order	3.18	0.79	4.34	0.73	0.365	
1.5.4 Students' commitment to community and sustainable development	3.07	0.81	4.26	0.76	0.388	
1.5.5 Students' participation in political discussions and elections	2.81	0.94	4.01	0.95	0.427	
1.5.6 Students' recognition of global issues, including global warming and conflicts	3.03	0.84	4.21	0.79	0.389	
1.5.7 Students' respect diversity and human values	3.22	0.81	4.40	0.72	0.366	
1.5.8 Students' willingness to make the world an equitable and sustainable place	3.15	0.85	4.34	0.73	0.378	
1.5.9 Students' responsibility for own actions	3.30	0.83	4.49	0.69	0.361	
2. Increased financial autonomy and accountability of schools	3.04	0.73	4.22	0.68	0.388	
2.1 Internal factors affecting the increased financial autonomy and accountability of schools						
2.1.1 Students' knowledge in subject matters and hard skills, including foreign language and ICT	3.08	0.89	4.29	0.79	0.393	

2.1.2 Students' critical thinking, problem solving, communication skills and life skills	3.07	0.88	4.25	0.78	0.384	
2.1.3 Students' respect for the law and social order	3.15	0.89	4.33	0.80	0.375	
2.1.4 Students' commitment to community and sustainable development	3.05	0.89	4.24	0.83	0.390	
2.1.5 Students' participation in political discussions and elections	2.66	0.99	3.85	1.03	0.447	

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Professional degree, General Insurance, Chartered Insurance Institute (U.K.) and Malaysian Insurance Institute (MII), 2008

M.S., International Economics, Moscow State Institute of International Relations (MGIMO), 1988

WORK EXPERIENCE

2013-Present Minister of Education, Youth and Sports, Cambodia

2010-2013   Deputy Minister of Economy and Finance, Cambodia

2004-2010   Permanent Secretary, Ministry of Economy and Finance, Cambodia/ Supreme National Economic Council

2001-2004   Deputy Permanent Secretary, Ministry of Economy and Finance,

2000-2001   First Deputy Director of Budget and Financial Affairs, Ministry of Economy and Finance,

1993-1998   Senior Research Officer, Australian Embassy in Phnom Penh

Current and desire state of Education Management Reform in Cambodia

Ministry of Education, Youth and Sport (MoEYS) is implementing the Education Strategic Plan (ESP) 2014-2018 with focus on Improving Quality and