

**EFFECTS OF PROJECT-BASED ENGLISH INSTRUCTION
ON LEARNER AUTONOMY OF LOWER SECONDARY
SCHOOL STUDENTS**

Miss Suphawadee Suwannaphim



**A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Education in Teaching English as a Foreign
Language**

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ผลการสอนภาษาอังกฤษโดยใช้โครงงานเป็นฐานต่อความสามารถในการเรียนรู้ด้วยตนเองของ
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By Miss Suphawadee Suwannaphim
Field of Study Teaching English as a Foreign Language
Thesis Advisor Assistant Professor JUTARAT VIBULPHOL,
Ph.D.

Accepted by the FACULTY OF EDUCATION, Chulalongkorn
University in Partial Fulfillment of the Requirement for the Master of
Education

..... Dean of the FACULTY OF
EDUCATION
(Associate Professor SIRIDEJ SUJIVA, Ph.D.)

THESIS COMMITTEE

..... Chairman
(Assistant Professor Ruedeerath Chusanachoti,
Ph.D.)

..... Thesis Advisor
(Assistant Professor JUTARAT VIBULPHOL,
Ph.D.)

..... External Examiner
(Assistant Professor Tanisaya Jiriyasin, Ph.D.)

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

ศุภาวดี สุวรรณพิมพ์ : ผลการสอนภาษาอังกฤษโดยใช้โครงงานเป็นฐานต่อความสามารถในการเรียนรู้ด้วยตนเองของนักเรียนมัธยมศึกษาตอนต้น. (EFFECTS OF PROJECT-BASED ENGLISH INSTRUCTION ON LEARNER AUTONOMY OF LOWER SECONDARY SCHOOL STUDENTS) อ.ที่ปรึกษาหลัก : ผศ. ดร. จุฬารัตน์ วิบูลผล

ความสามารถในการเรียนรู้ด้วยตนเองได้รับการยอมรับอย่างกว้างขวางว่าเป็นหนึ่งในเป้าหมายการศึกษาในศตวรรษที่ 21 นอกจากนี้ยังพบว่า ความสามารถในการเรียนรู้ด้วยตนเองส่งผลต่อความสำเร็จในการเรียนรู้ภาษาอีกด้วย งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาผลการสอนภาษาอังกฤษโดยใช้โครงงานเป็นฐานต่อความสามารถในการเรียนรู้ด้วยตนเองของนักเรียนมัธยมศึกษาตอนต้น งานวิจัยนี้เป็นงานวิจัยแบบกลุ่มทดลองกลุ่มเดียว วัดผลก่อนและหลังการทดลองซึ่งเก็บข้อมูลทั้งเชิงปริมาณและเชิงคุณภาพจากนักเรียนชั้นมัธยมศึกษาตอนต้น จำนวน 39 คนซึ่งใช้เวลา 14 สัปดาห์ในการเรียนภาษาอังกฤษโดยใช้โครงงานเป็นฐาน ข้อมูลเชิงปริมาณที่ได้รับจากแบบสอบถามเกี่ยวกับความสามารถในการเรียนรู้ด้วยตนเองด้านภาษา ได้รับการตรวจสอบสามเส้าจากข้อมูลที่ได้จากแบบบันทึกหลังการเรียนรู้อย่างอิสระและแบบสัมภาษณ์การเรียนรู้ด้วยตนเอง ผลการวิจัยแสดงให้เห็นว่าผู้เรียนพัฒนาความสามารถในการเรียนรู้อังกฤษด้วยตนเองจากระดับต่ำไปยังระดับสูงอย่างมีนัยสำคัญ ทั้งนี้ความสามารถในการเรียนรู้ด้วยตนเองทั้ง 4 ด้านพัฒนาขึ้นอย่างมีนัยสำคัญ ความสามารถในการเรียนรู้ด้วยตนเองด้านสังคมและวัฒนธรรมได้รับการพัฒนาสูงที่สุด ตามมาด้วย ความสามารถในการเรียนรู้ด้วยตนเองด้านเทคนิควิธี ความสามารถในการเรียนรู้ด้วยตนเองด้านจิตวิทยา และความสามารถในการเรียนรู้ด้วยตนเองด้านความเสรีในการตัดสินใจและการเจรจาต่อรอง หัวข้อที่ได้รับจากการวิเคราะห์ข้อมูลจากแบบบันทึกหลังการเรียนรู้อย่างอิสระและแบบสัมภาษณ์การเรียนรู้ด้วยตนเองได้แก่ “การใช้กลวิธีในการเรียนที่หลากหลายเพื่อที่จะเรียนภาษาอังกฤษ” และ “แรงจูงใจในการเรียนภาษาอังกฤษ” จึงสามารถสรุปได้ว่าการสอนภาษาอังกฤษโดยใช้โครงงานเป็นฐานสามารถพัฒนาความสามารถในการเรียนรู้ด้วยตนเองอย่างมีประสิทธิภาพ ดังนั้นมันจึงเป็นตัวเลือกที่ดีที่จะนำไปใช้ในห้องเรียนภาษาอังกฤษที่มีเป้าหมายที่จะพัฒนาความสามารถในการเรียนรู้ด้วยตนเอง เพื่อที่จะใช้การสอนภาษาอังกฤษโดยใช้โครงงานเป็นฐานให้มีประสิทธิภาพ ครูภาษาอังกฤษสร้างความเข้าใจในหลักการต่างๆ ของการเรียนรู้ด้วยโครงงานและเปลี่ยนบทบาทตัวเองให้เป็นผู้อำนวยความสะดวกในการสอน สำหรับการวิจัยในครั้งต่อไปผู้วิจัยควรศึกษาศึกษาผลการสอนภาษาอังกฤษโดยใช้โครงงานเป็นฐานต่อความสามารถในการเรียนรู้ด้วยตนเองด้านสังคมและวัฒนธรรมในห้องเรียนปกติ

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Suphawadee Suwannaphim : EFFECTS OF PROJECT-BASED ENGLISH INSTRUCTION ON LEARNER AUTONOMY OF LOWER SECONDARY SCHOOL STUDENTS. Advisor: Asst. Prof. JUTARAT VIBULPHOL, Ph.D.

Learner autonomy is widely accepted as one of the educational goals in the 21st century. Additionally, learner autonomy has been found to affect success in language learning. This study aimed to investigate the effects of project-based English instruction on learner autonomy of lower secondary school students. This study employed a one-group pretest-posttest design to collect both quantitative and qualitative data from 39 lower secondary school students attending 14-week project-based English instruction. The quantitative data obtained from the learner autonomy questionnaire were triangulated with the qualitative data collected from the learning logs and the semi-structured interviews. The findings revealed that the learner autonomy of lower secondary school students increased with statistical significance, changing from “low” level to “high” level. All dimensions of learner autonomy were increased significantly. The socio-cultural dimension was developed the most, followed by technical dimension, psychological dimension, and political-philosophical dimension. The two emerging themes from the learning logs and interviews were “using various learning strategies to learn English” and “motivation to learn English”. It could be assumed that the implementation of the project-based English instruction could effectively enhance learner autonomy. Therefore, it is a good option for any English classrooms aimed at fostering learner autonomy. To implement the effective project-based instruction, the English teachers should conceptualize the principles of project-based learning and change the role to become a facilitator. For further studies, the researchers should investigate the effects of the project-based English instruction on the socio-cultural dimension in the onsite classroom.

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INTRODUCTION

Background of Study

Learner autonomy is widely considered as one of the educational goals in the 21st century (Alonazi, 2017; Basri, 2020; Benson, 2011). It has also been found to affect success in second language learning (Alonazi, 2017; Benson, 2011; Mahendra & Triyono, 2019; Melvina & Julia, 2021). Nunan (1988) emphasized that English learning should not end only in the class time; English learners need to take any opportunities they have in and outside the class to continually develop their English skills (Chusanachoti, 2016). To be able to 'keep learning', English learners need to possess a certain level of learner autonomy (Benson, 2011; Nunan, 1988); therefore, how to foster learner autonomy of English language learners has received much attention (Basri, 2020; Benson, 2011; Liu & Qi, 2017; McClure, 2001; Teimourtash & Yazdani, 2017). The standards for the foreign language learning area in Thailand basic education core curriculum also reflects this same line of thoughts (Koad, 2022). Ninth-graders are expected to be autonomous learners who can use English as a tool for searching information, cultivating essential knowledge for higher education, and conducting lifelong learning (Ministry of Education, 2008).

Autonomous learners are described as learners who takes responsibility for their own learning, starting from determining the learning objectives, defining the content, selecting the learning methods and materials, monitoring the learning process, and evaluating what has been learned (Holec, 1981). The learners change their roles from being teacher-dependence to self-dependence (Dickinson, 1987; Wiraningsih & Dewi, 2020) while teachers shift to be a facilitator, a counselor, a resource person, or a learning manager (Alonazi, 2017; Benson, 2011; Voller, 1997; Wiraningsih & Dewi, 2020). The

teachers only need to ensure that the learners can plan, carry out their learning, and assess the learning by themselves. Autonomous learners need to have options in the learning process (Intraboonsom et al., 2020) and have opportunities to make decisions about their own learning within a collaborative and supportive environment (Benson, 2011; Holec, 1981). Additionally, to be able to sustain their independent learning, learners need to be intrinsically motivated (Deci & Ryan, 2008; Ling, 2013; Niemiec & Ryan, 2009; Taylor et al., 2014). Studies have shown that teachers who gave space for students' independent learning can enhance students' motivation better than those who took control over the class (Loima & Vibulphol, 2014, 2016; Vibulphol, 2016). In other words, autonomy and motivation are closely connected.

In the Thai context, the previous studies revealed the factors that can hinder the development of learner autonomy (Tapinta, 2016; Tayjasanant & Suraratdecha, 2016) include the Thai culture of dependence on teachers (Tapinta, 2016; Tayjasanant & Suraratdecha, 2016). Additionally, students lack opportunities to have choices and make decisions in the learning process (Loima & Vibulphol, 2016; Tayjasanant & Suraratdecha, 2016; Vibulphol, 2016). Therefore, English teachers should explore teaching methods that encourage students to gradually shift from students from being spoon-fed to taking responsibility for their own learning and provide students opportunities to have choices and make decisions about their own English language learning.

To foster learner autonomy, various approaches have been proposed (Allwright, 1979; Benson, 2011; Dickinson, 1987; Holec, 1981). Benson (2011) described six different approaches to promote autonomy including resource-based approaches,

technology-based approaches, learner-based approaches, classroom-based approaches, curriculum-based approaches, and teacher-based approaches. One of the classroom-based approaches is Project-based learning (PBL) (Kokotsaki et al., 2016). In PBL lessons, students choose a meaningful theme for the project. Students work in groups to explore challenging problems related to the theme and try to find the solutions together. Students make decisions about how to collect the data, analyze the data, produce their end-product, improve their product, and present the group product to the audience. During the PBL process, students have opportunities to plan for their own learning, set their own learning goals, choose their learning strategies, monitor their group work, evaluate their own learning performance, reflect on their learning, negotiate with peers and teacher about the project work, and learn how to learn English through group working (Larmer et al., 2015). These are associated with the development of learner autonomy (Benson, 2011; Cotterall, 2000; Dickinson, 1987; Holec, 1981; Littlewood, 1996). The process leading to the project's end-product in PBL provides students the opportunities to develop confidence and independence through planning and making decisions about their learning (Fried-Booth, 2002; Skehan, 1998). In Thailand, project-based learning has been conducted to promote learner autonomy in English classes with sixth graders (Pichailuck, 2017) and second-year students in the tertiary education (Pisitsenakul et al., 2013). However, few research studies have been carried out to examine the effects of project-based learning on learner autonomy of lower secondary school students. Hence, the present study attempted to investigate project-based learning can be implemented in English lessons to foster learner autonomy of lower secondary school students in Thailand.

Research Question

The present study attempted to find answers to the following question:

How did project-based English instruction affect learner autonomy of lower secondary school students?

Research Objective

The present research aimed to study the effects of project-based English instruction on learner autonomy of lower secondary school students.

Definitions of Terms

Project-based English instruction refers to long-range lesson plans and lesson plans that align with the principles of project-based learning, including a challenging problem or question students need to explore and seek ways to solve, a sustained inquiry that encourages students to take time to ask questions and investigate information by using various resources, authenticity in which students have opportunities to do the authentic tasks with the real-world tools and their own interests, student voice and choice that encourages students to choose choices based on their interests, critique, and revision which encourages students to develop, critique, and revise the products, reflection that encourages students to think about what they have learned and how they have completed the tasks, and public product that encourages students to display their products to the audience beyond the class. The principles of project-based learning were employed in four phases: Phase 1 launching the project, Phase 2 building knowledge, understanding, and skills, Phase 3 developing, critiquing, and revising products, and Phase 4 presenting products.

Learner autonomy refers to an ability to take responsibility for their own learning by making decisions of choices. In this study, learner autonomy is learners' ability to manage their English language learning. Four significant dimensions of learner autonomy are technical, psychological, political-philosophical, and socio-cultural autonomy. The technical dimension refers to the ability to use cognitive and metacognitive strategies to manage their own English learning independently. The psychological dimension refers to the ability to motivate themselves to learn English and use strategies to reduce anxiety when learning English. The political-philosophical dimension refers to the ability to make decisions about their own English learning and negotiate with the teacher about the learning activities. The socio-cultural dimension refers to the ability to learn English from others through social interaction in different contexts. The levels of learner autonomy in the present study were measured by the Measuring Instrument Language Learner Autonomy (MILLA).

Lower secondary school students refer to Thai lower secondary school students who were studying in grades 7-9 in regular programs in medium-sized schools in Thailand.

Scope of the Study

The present study was conducted at a medium-sized public school in the eastern part of Thailand. The study investigated the effects of project-based English instruction on learner autonomy of lower secondary school students. The project-based English instruction was developed based on seven principles of project-based learning. The Measuring Instrument Language Learner Autonomy (MILLA) questionnaire was administered online before and after the implementation. During the commission, the

students were asked to conduct a learning log after finishing each week. After 14-period project-based English instruction, the students were asked to complete the same questionnaire online. Moreover, a semi-structured interview was administered to obtain the data. Both the learning log and interview data were used to triangulate the questionnaire findings.

The Population and Participants

The population of this study was Thai lower secondary school students in Thailand who were studying in grades 7-9 in regular programs in medium-sized schools in Thailand. The participants in the present study referred to 39 Thai lower secondary school students studying in a regular program at a public school in the eastern part of Thailand. They participated in an additional course “Learning English through a Project”. Their ages ranged from 12 to 16 years old, with 20 males and 19 females. Based on the selected content, the themes required for ninth-grade graduates were examined and covered. The participants possessed different English proficiency based on their English grades. In addition, they had learned English for at least six years in the same regular program, curriculum, and school and with the same teacher. Furthermore, they lived in the same area and experienced the same social environment. Last, they had never previously participated in project-based English instruction. Therefore, they were novice participants in the project.

The Variables

In this study, two main variables consisted of the independent and dependent variables. The independent variable was project-based English instruction. The

dependent variable was levels of learner autonomy in four dimensions comprised of technical, psychological, political-philosophical, and socio-cultural dimensions.



Research Framework

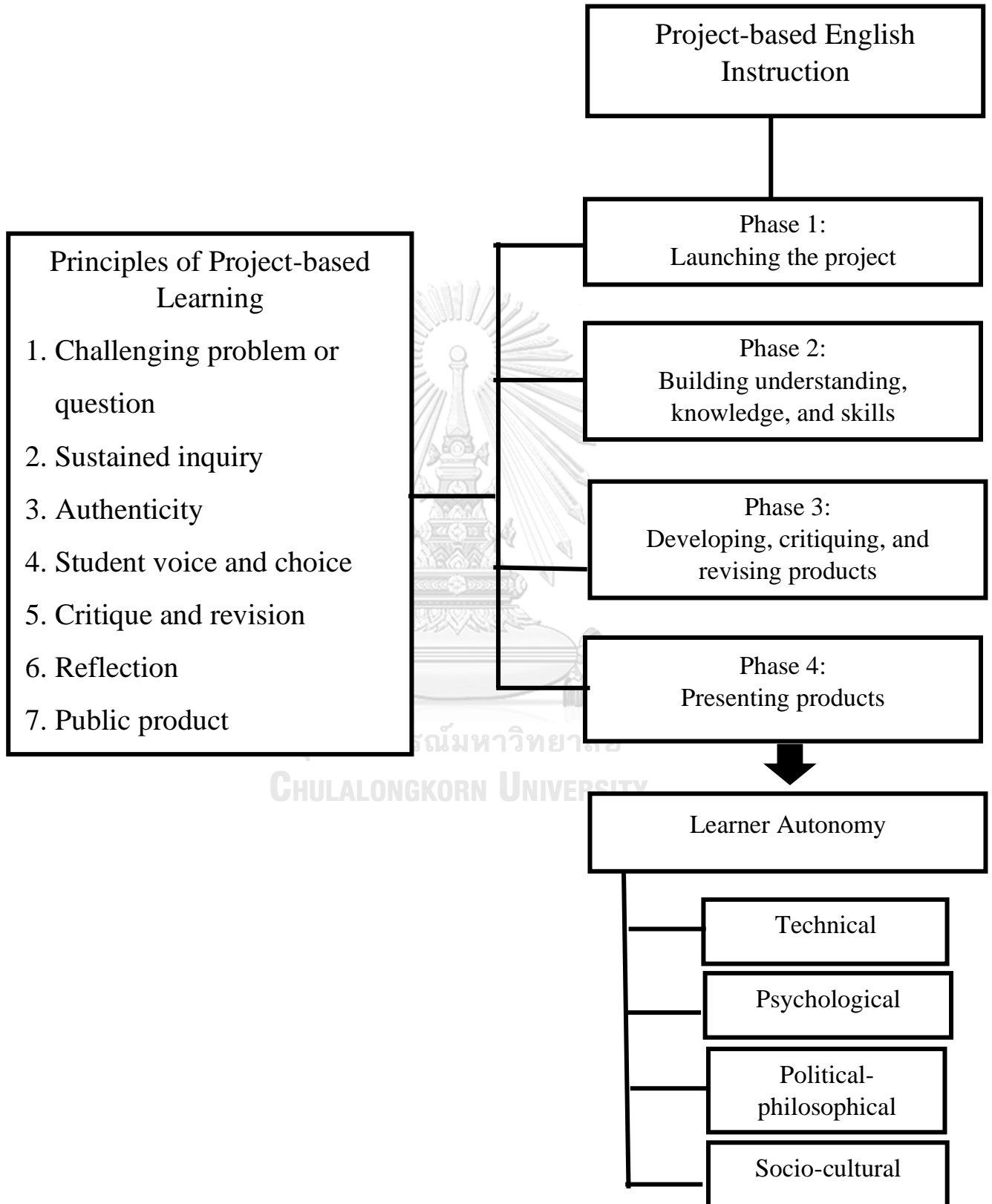


Figure 1 Framework of Project-based English Instruction

As figure 1 shows, the seven principles (Buck Institute for Education, 2019) were employed in every phase of project-based English instruction (Larmer et al., 2015) involving Phase 1 Launching the project, Phase 2 Building understanding, knowledge, and skills, Phase 3 Developing, critiquing, and revising products, and Phase 4 Presenting products to foster learner autonomy in four dimensions consisting of technical, psychological, political-philosophical, and socio-cultural dimensions.



CHAPTER 2

LITERATURE REVIEW

This part provides a theoretical background for the present study related to learner autonomy and project-based learning. Firstly, the researcher described the notions of learner autonomy, including definitions of learner autonomy, components of learner autonomy, characteristics of autonomous learners, the approaches fostering learner autonomy, the roles of teachers to promote learner autonomy, and the assessment of learner autonomy. Secondly, the researcher elaborated on project-based learning concepts, including project-based learning definitions, characteristics of project-based learning, the principle of project-based learning, and project-based English instructional procedures. Lastly, the researcher discussed the findings of previous research studies related to the effects of project-based learning in the language classroom and on learner autonomy.

Learner Autonomy

Typically, education and foreign/second language education, learner autonomy has been considered to be an important goal for decades (Benson, 2011; Dang, 2010; McClure, 2001; Waterhouse, 1990). Especially, in language learning the more the learners possess a degree of autonomy, the better the learners are motivated to learn the foreign language. Before learning about learner autonomy, It has been crucial to have a precise concept of its meaning. The following presents the definition of learner autonomy.

Definition of Learner Autonomy

In general, the definition of learner autonomy and self-directed learning are widely confused (Holec, 1981). According to W. Little (1990), he claimed that self-instruction does not show the synonym of autonomy. Additionally, autonomy is not only learning without a teacher. Put simply, a teacher cannot leave the responsibility on the part of the teacher; namely, it is not a matter of permitting the learners to conduct activities as best they can. Moreover, self-directed learning is another one term that is confused with learner autonomy because there are similar distinctions with learner autonomy. To be clear, Holec (1981) defined autonomy as “an ability to take charge of one’s own learning” while self-directed learning as a way in a learning process. The concept of learner autonomy is knowing how to learn that is regarded as an ability or capacity that needs to be acquired, i.e., learning how to learn and different from self-directed learning viewed as one of the learning modes that take place when autonomy is being or has been acquired.

Dickinson (1987, p. 11) described learner autonomy as a situation in which the learner is “totally responsible” for all decisions he/she makes for their learning. This view is described as full autonomy, which is referred to as a situation in which the learner is independent and learns without help from the teacher. However, the scholars argued that autonomy could be fostered in the context of the teacher support (Benson, 2011; D. Little, 1990). Littlewood (1996) described an autonomous learner as “one who has an independent capacity to make and carry out the choices which govern his or her actions.”

Littlewood (1999, p. 73) defined autonomy as involving students' capacity to use their learning independently of teachers. Therefore the autonomous learners should be able to determine their own goal, select the appropriate strategies and methods (Benson, 2011; Cotterall, 2000; Holec, 1981), monitor the learning process (Benson, 2011; Holec, 1981), and evaluate their performance (Benson, 2011; Holec, 1981).

Furthermore, Cotterall (2000) learners have to determine the goal, contents and progression and choose methods and appropriate techniques to be used during the learning journey.

Benson (2011, p. 60) defined learner autonomy as the "capacity to take responsibility for their own learning." Learner autonomy refers to the capacity to take control over their own learning in terms of setting goals, monitoring, evaluating, and reflecting. Rivers and Golonka (2009) described learner autonomy as an active and independent management of learning. These aspects also pertain to Benson's (2003) five main dimensions that promote autonomy, i.e., involving actively in their learning, using available learning resources, making decisions about learning, being supported, and being encouraged to reflect on practice or performance by students and teachers.

In the present study, learner autonomy was defined as the ability to take responsibility for their own learning by having choices and decision-making opportunities to manage their own learning.

Dimensions of Learner Autonomy

Learner autonomy consists multidimensional constructions. Benson (1997) proposed the three dimensions of autonomy, namely, technical, psychological, political

dimensions. Then, Oxford (2003) added the sociocultural dimension into Benson's model. To measure the degrees of learner autonomy, Murase (2015) reconceptualized both Benson (1997) and Oxford (2003)'s multidimensional dimensions of learner autonomy. Therefore, the dimensions of learner autonomy consist of four main dimensions as follows; technical, psychological, political-philosophical, and sociocultural dimensions. Each dimension was elaborated below.

The technical dimension refers to behavioral and situational sub-dimensions. The behavioral sub-dimension is the ability to use cognitive and metacognitive strategies to manage their own learning.

The psychological dimension refers to motivational, metacognitive, and affective sub-dimensions. The motivational sub-dimension is the ability to know how to use the strategies to motivate themselves to learn. The metacognitive sub-dimension refers to the ability to manage one's own learning by knowing the needs, interests, weakness and strength and then planning to fulfill them. The affective sub-dimension means the ability to control over one's own learning by knowing one's own affective factors such as, anxiety and self-esteem that might hinder the learning process and then learning how to manage the affective factors.

The political-philosophical dimension refers to positive and negative freedom, group autonomy, and individual autonomy. The positive freedom refers to the freedom for the students to manage their own learning by negotiating the learning goals, contents they need to learn or they are interested in, materials serving their learning styles, and activities they view as effective ways to prompt them to learn better and independently. The negative freedom means that the students have the ability to manage their learning

process freely to serve their needs and interests without the constraints. The group autonomy means the awareness of teachers' authority in terms of managing and facilitating the learning process rather than directing all the learning activities in the class. The individual autonomy signifies the freedom to choose the learning in terms of the abilities to set goals, choose the contents, choose materials, and choose activities in the classroom.

The sociocultural dimension refers to social-interactive and cultural sub-dimensions. The social-interactive sub-dimension is the ability to learn from others through social interaction among peers and teachers. The cultural sub-dimension means the ability to view the ways about how to take responsibility to manage one's own learning interpreted in different ways in different cultures.

According to Wenden (1991), a learner who wants to possess learner autonomy should have the willingness and capacity to take charge of their own learning. Willingness and ability of a learner can be enhanced by developing their attitudes consisting of learned motivations, valued beliefs and evaluations oriented towards approaching or avoiding" (Wenden, 1991, p. 52). Wenden (1991) claimed that the three main components of attitudes towards autonomy are cognitive, evaluative, and behavioral. The details for each component will be presented below.

Firstly, a cognitive component composes of beliefs, perceptions, and information about the attitude. In other words, learners believe in themselves about their roles in language learning and the capacity to be a language learner and language user. Secondly, an evaluative component is regarded as a feeling of language learners towards tasks such as like, dislike, agreement, and disagreement. Based on the

evaluative component, it can be implied that learners who love to learn the language can take responsibility for their own learning. Finally, a behavioral component refers to the performance of a language learner. It means that the more positive the learners have towards evaluative information, the more responsible for their own learning the learners possess.

In short, multidimensional dimensions of learner autonomy consisting of technical, political-philosophical, sociocultural, and psychological dimensions were employed to be the conceptual framework of the present study.

Characteristics of Autonomous Learners

Little (1991, p. 4) pointed out that the autonomous learners were recognized by observable and unobservable behaviors that demonstrated in numerous different forms. Put simply, the learners can be autonomous in various ways depending on the learners' age, how far the learners have achieved their learning goals, what the learners have perceived autonomy in language learning. For instance, one learner may be good at making a study plan and following the study plan by using self-access materials while another may be good at creating the opportunities to use the target language to interact with the native speakers. In other words, learners can become autonomous in different aspects of autonomy in various situations and contexts.

Littlewood (1999) proposed two main characteristics of autonomous learners, namely, proactive and reactive learners. Firstly, proactive learners have the ability to direct and manage their own learning by themselves by setting the learning goal, choosing the learning methods, implementing the learning strategies, determining the content, organizing their own learning resources, monitoring their learning process, and

evaluating what they have learned. In other words, the proactive learners possess the ability take responsibility of learning management, cognitive processing, and learning content. Secondly, reactive learners are considered as autonomous learners but they could not create their own ways to manage their own learning at the first time. However, once the reactive learners initiated the exercise of making their own decision about their own learning, they could control their own learning directions and manage the systems to use various learning resources that are relevant and reliable to help them to reach their learning goals.

The Approaches to Foster Learner Autonomy

To foster learner autonomy, Benson (2011), as a pioneer of learner autonomy development, suggested the learner-based approaches that is one of approaches employed to enhance learner autonomy. The details of learner-based approaches are explained as followings. The learner-based approaches focus on encouraging the learners to take greater control over their own learning by directly providing them the necessary knowledge and skills they need to complete their learning journey. In other words, the teacher is required to shift the control in the classroom from the teacher-centered settings to learner-centered settings (Thanvenius, 1999). Additionally, the teacher needs to give the students opportunities to develop learner autonomy through working in groups and encourage them to set their own goals, plan and manage their own learning, monitor their progress and evaluate what they have learned together (Benson, 2011; Breen & Mann, 1997; Hedge, 2000; Holec, 1981; Kohonen, 1992). Furthermore, students have opportunities to make decisions by themselves with appropriate support from the teachers (Benson, 2011; Holec, 1981).

In this study, the learner-based approaches will be employed to make change the roles of the teacher and learners in the classroom that shifts from teacher-centered setting to learner-centered setting. The learners have opportunities to develop learner autonomy through the environment of freedom to make decisions about their own learning and working in group to help each other to set learning goals, plan to manage the learning process, and evaluating their performance.

The Roles of Teachers to Promote Learner Autonomy

The important roles of the teachers in enhance learner autonomy consist of facilitator, counsellor, resource provider and manager (Alonazi, 2017; Wiraningsih & Dewi, 2020), as well as organizer (Wiraningsih & Dewi, 2020).

Facilitator

The teacher is required to be a facilitator (Alonazi, 2017; Wiraningsih & Dewi, 2020). A facilitator is a helper who supports in both pedagogical and affective areas in order to make their learning easier (Wiraningsih & Dewi, 2020). In pedagogical support, teacher facilitate planning and executing stages on their own learning. For example, the teacher assists the learners to set their own goals, to ask themselves questions, and to complete the tasks at their own language ability. For affective support, students should focus on autonomous learning. For instance, the teacher encourages students to learn new things using their own ways since the teacher cannot stay with them all the time.

Counsellor

To enhance the students' autonomy, the teacher needs to be a counsellor (Alonazi, 2017; Wiraningsih & Dewi, 2020). The teacher, as a counselor, advices students to come up with creative solutions when they face problems (Kongchan, 2008;

Lin & Reinders, 2019; Wiraningsih & Dewi, 2020). Moreover, the teacher is required to give meaningful advice to assist students to reach their own learning success (Wiraningsih & Dewi, 2020). For instance, the teacher helps students by giving optional learning strategies and activities when encountering obstacles.

Resource Provider

The teacher needs to be a resource provider who nurture learner autonomy in students (Alonazi, 2017; Wiraningsih & Dewi, 2020). Teachers perform their roles in the language classroom as a resource provider by letting them know about various learning resources and strategies (Wiraningsih & Dewi, 2020). For example, teacher recommends useful websites, relevant books, and experts so that the students can find out answers on their own. As for learning strategies, teacher encourages students to reflect on their learning: what they did well; how they can improve; what are their difficulties; and how they can overcome those obstacles.

Manager/ Organizer

The teacher should be a manager or organizer in the language classroom (Alonazi, 2017; Wiraningsih & Dewi, 2020). As a manager, the teacher takes responsibility for creating environment where students can learn by themselves and construct their own knowledge (Wiraningsih & Dewi, 2020). For instance, the teacher organizes class into small groups for discussion and performing role-play activities to motivate them to learn by themselves.

To brief, in order to foster learner autonomy, teachers act as a facilitator who makes the learning process easier; a counselor who can talk about the problems with the students and give the useful advice for problem solutions; a resource provider who can provide useful and relevant resources when students need; a manager who can

create learning environment that motivates students to learn independently and creatively.

The Assessment of Learner Autonomy

According to Benson (2011), he found that globally the researchers mentioned the assessment concept of the degrees of learner autonomy that the learners can be able to acquire autonomy or become more autonomy throughout the literature. Some researchers pointed out that the assessment of autonomy is problematic because learner autonomy is various construct and it cannot be measured by a test (Benson, 2011; Breen & Mann, 1997). Additionally, although the behaviors can be identified as a guideline for demonstrating control over learning, there was little empirical evidence to ascertain that autonomy includes particular behaviors. As said by Little (1991), learner autonomy consists of multidimensional forms of construct depending on age, how they progress their learning, and how much they perceive their own needs. However, Nunan (1997) claimed that if autonomy was defined in terms of various aspects of control over learning, the extent to which learner is autonomous can be measured by their performance in natural contexts of learning in the applied linguistics research.

According to the previous research studies of learner autonomy (Boggu & Sundarsingh, 2019; Bozkurt & Arslan, 2018; Chan, 2001; Hu & Zhang, 2017; Tran & Duong, 2018; Warni et al., 2018; Wei et al., 2018; Xu, 2009; Yeh & Lan, 2018), the techniques employed in the research studies are questionnaires (Boggu & Sundarsingh, 2019; Bozkurt & Arslan, 2018; Hu & Zhang, 2017; Warni et al., 2018; Wei et al., 2018; Yeh & Lan, 2018). Moreover, the interviews were used to investigate the development of learner autonomy (Chan, 2001; Hu & Zhang, 2017; Tran & Duong, 2018; Warni et al., 2018). However, the questionnaires used in the studies focus on the beliefs,

perceptions and readiness of learner autonomy (Boggu & Sundarsingh, 2019; Bozkurt & Arslan, 2018; Duong, 2014; Wei et al., 2018; Yeh & Lan, 2018).

The present study utilized the questionnaire to investigate the levels of learner autonomy before and after the implementation of project-based English instruction. Learning log and interview were used to triangulate the findings of the questionnaire. Learning log would be conducted during the process of implementation of project-based English instruction to obtain the data each week. In addition, the interview will be used to obtain in-depth data from the participants after the implementation of project-based English instruction. In the present study, the researcher adopted the Learner Autonomy Questionnaire developed by Murase (2015). The Learner Autonomy Questionnaire was chosen because it was developed to employ to assess the levels of learner autonomy in the foreign language area. The questions used in a semi-structured interview in the present study was adapted from Murase (2015).

Learner Autonomy Questionnaire. In the present study, the researcher adopted the learner autonomy questionnaire from the Measuring Instrument for Language Learner Autonomy (MILLA) Murase (2015). The MILLA was originally developed by Murase (2015). The MILLA was developed based on the multidimensional dimensions of learner autonomy from Benson (1997) and Oxford (2003) to measure the degrees of learner autonomy in language learning. The four dimensions of learner autonomy consist of technical autonomy, psychological autonomy, political-philosophical autonomy, and sociocultural dimension. The technical dimension refers to the ability to use cognitive and metacognitive strategies to manage their own learning in the situation in which the learners need to learn independently. The psychological dimension refers to the ability to motivate themselves to learn English and use the strategies to reduce

anxiety when learning English outside the classroom. The political-philosophical dimension refers to the ability to make decisions about their own learning and negotiate with the teacher about the learning activities. The socio-cultural dimension refers to ability to learn English from others through social interaction in different contexts.

The MILLA was administered to 1,517 Japanese students in the tertiary level from 18 different universities in Japan to check the validity and reliability. The validation and reliability of the MILLA questionnaire was investigated by conducting a series of confirmatory factor analysis (CFA). The results indicated that overall items were an acceptable level of validity and the reliability showed the Cronbach's alpha of 0.94.

The MILLA developed by Murase (2015) was utilized in the present study because it was developed to measure the degrees of learner autonomy in the foreign language area. The MILLA was translated into Thai to help the participants to understand the statements clearly and reduce the language barriers. According to the COVID-19 situation, the MILLA was conducted through the online platform to reduce the risks of infecting the COVID-19 virus. The process of administering the online MILLA was explained as follows.

The MILLA was administered through the online platform before and after the implementation of the project-based English instruction. Before the intervention, the researcher set the schedule for the participants in order to explain the process of conducting the study before the day the participants conducted the MILLA. During the meeting, the researcher introduced the purpose of conducting the MILLA and how to complete the MILLA through the online platform in Thai. The participants were

provided the opportunities to ask questions about what they had confusion or which part they needed the clarification before ending the meeting. At the day for conducting the MILLA, the researcher sent the participants the link of the online MILLA and asked the participants to capture the pictures to show that they finished the online MILLA. Then, the participants were assigned to send the captured pictures into the group line of the class.

After the implementation of the project-based English instruction, the participants were asked to complete the online MILLA. The participants received the link of the online MILLA from the group line of the class. According to the second time of conducting the online MILLA, the participants were familiar with the ways on how to complete the MILLA since they have learned from the first time that they did the online MILLA before the implementation of the project-based English instruction. After finishing the online MILLA, the participants needed to capture the pictures to show that they have already completed the MILLA and send the captured pictures to the group line of the class.

The MILLA used in the study contained 50 items with five Likert's scale options as followed.

- | | |
|-----------------------|---|
| 1 (strongly disagree) | means I strongly disagree with this statement |
| 2 (disagree) | means I disagree with this statement |
| 3 (not sure) | means I neither agree nor disagree with this |
| | Statement |
| 4 (agree) | means I agree with this statement |
| 5 (strongly agree) | means I strongly agree with this statement |

The questionnaire consists of two sections as presented below.

Section 1: Demographic information. In this section, the learners were asked to provide their demographic information consisting of name, age and gender. This demographic information was employed to understand the learners' background.

Section 2: Learner autonomy scale. The second section of the questionnaire comprised of 50 items used to measure the degrees of learner autonomy. The statements in the questionnaire are under four main dimensions as follows: technical autonomy, psychological autonomy, political-philosophical autonomy, and sociocultural autonomy (see the questionnaire in APPENDIX).



Project-Based Learning

Definition of the Project-Based Learning

According to Buck Institute for Education (2019), project-based learning is a pedagogical method in which students engage actively in real-world and meaningful projects based on problems or challenging questions that encourage students in design, decision making and problem-solving.

Fried-Booth (2002, p. 6) elucidated the meaning of project-based learning as a student-centered approach in which students are driven by the need to produce an end-product in small groups. Additionally, project-based learning builds the bridge between real-world language since it allows students to work together through hands-on activities in an meaningful and authentic context (Fried-Booth, 2002).

Solomon (2003) described project-based learning as a process of learning that learners need to take control for their own learning by working collaboratively to solve the problems that are “authentic, curriculum-based, and often interdisciplinary.” (p. 10). Learners make a plan to design their learning process, analyze and evaluate to select the information for the project and make decisions on how and where information can be gathered (Solomon, 2003).

Bell (2010) defined project-based learning as a pedagogical method that encourages students to pose a meaningful question and to be guided through research under the instructor’s supervision.

Bender (2012) defined project-based learning as an instruction in which students have opportunities to create a project focusing on their preferred topics and real-life situations. The teacher allows students to manage their own timeframe and the

ways on how to complete the assignment rather than follow the teacher's instructions and assignment.

In the present study, project-based learning is a pedagogical approach that encourages students to work in groups to create a meaningful product to tackle the authentic problems in the real-life.

Principles of Project Based Learning

Buck Institute for Education (2019) and Larmer et al. (2015) identified the essential project design elements of project-based learning that consist of challenging problem or question, sustained inquiry, authenticity, student voice and choice, reflection, critique and revision, and public product as described in the following section.

1. Challenging Problem or Question

In the project, the challenging problem to examine and solve or a meaningful question to explore and solve. The engaging problem or question makes the learning throughout the project more meaningful for the students. To complete the project, the students are not simply listening and gaining knowledge to remember it; they are learning since they have a real need to acquire something. They could apply what they have learned to solve a challenging problem or explore the possible answers for a question that interrupts in their life. This could help the students use and apply the knowledge learned during the project in the future (Brown et al., 1983; Brown et al., 1989). A plethora of research studies demonstrated that meaningful and purposeful knowledge is more easily recalled to use than random knowledge (Bransford et al., 2000; Ebbinghaus, 2013). Questions in the project help the students focus on what is

necessary to be learned and assist the students to distinguish between relevant and irrelevant information. This can activate the students' prior knowledge, which is important area of the process of manage new information and relate it to what they have already known (Dean & Hubbell, 2012). During the problem-solving process, the students generate knowledge and understanding that they have known. Therefore, the students are assumed that they could use it again in the future learning.

Key components lead to the challenge level of a question. First, the difficult understanding and employing the relevant information the students will need to learn. However, the teachers need to ensure that the students could understand the information and solve the problems. Second, the levels of structure within the problem. When the problems require the students to develop their own solutions, they are more challenging than the problems that the students follow a familiar way to solve the problems. These problems are challenging since the students have opportunities to learn how to conduct the investigations, namely, what tools to use, what questions to ask more, what steps to follow. In addition, the students may need scaffolding for successful investigation. Third, the complexity of procedures and steps the students need to complete to tackle the problem (Blumenfeld et al., 1987).

2. Sustained Inquiry

According to John Dewey's thought, the inquiry has the strongest influence on project-based learning. Challenging problems or questions are utilized to launch an inquiry designed to answer the question. The Latin root of inquiry means to ask. In the project-based learning, the students are required to ask the following questions: "What do we know?" and "What do we need to know?" to solve the problem or answer the driving question. These questions and teacher guidance contribute the students to

identify investigations and research to be carry out and tasks to be conducted, and plan for present the products they will create in public. It is vital to remember that inquiry does not mean research in the simple ways to find information from a book or website. To answer the questions, the students might interview an expert, make surveys, do field work, or conduct an experiment. As the students find answers to their initial questions, new questions emerge and they need to seek more answers; their inquiry becomes a cycle as they dig deeper and deeper.

The academic researchers evoke different reactions on the word “inquiry”. The educational conservatives (Kirschner et al., 2006) reproach inquiry, keep learning through inquiry is insufficient, overloads student cognitive capacity, and wastes teachers’ and students’ time. However, the progressive educators view inquiry as the main part of all meaningful learning (Bransford et al., 2000; Bruner, 1966; Hmelo-Silver et al., 2007) and argue that the learning conservatives do not really comprehend the practice of inquiry learning or project-based learning.

It is essential to maintain inquiry. One of the goals of Gold Standard Project-based Learning is to build the success skills or critical thinking/problem solving, collaboration, and self-management. Therefore, the students need to encounter problems and questions that take time to think about the solutions. Collaborative group confront developmental phases and emotional ups and downs. The development process of interactive skills to an ongoing team take time. Last but not least, the students are to develop self-management skills that will be useful in higher education, career, and life, they can manage their learning over the weeks to complete the project.

3. Authenticity

A plethora of research studies have shown that authenticity not only increase motivation and enhance achievement ((Blumenfeld et al., 2006; Brophy, 2013; Hickey et al., 2001). Authenticity is a complicated concept, but it has the synonym with making a learning as real. Both teachers and students can make projects authentic in diverse ways and in different degrees. First, the context of a project can be authentic when the students design or create products to serve the specific economic or social policies because the context matches what happens in the real world. Second, the tasks student complete and the tools they use during the project can make a project authentic if those tasks and tools are what people do in the actual world. Third, projects can have authentic impact on the real world, as when students make a presentation to the proposing the redesign of a school playground, write books and create a tutoring program for younger reader, conduct research projects and submit data that will be used to better understand climate change. Finally, projects have personal authenticity because they express the students' personal concerns, interests or because they engage the needs, values, language, and cultural practices of students' communities.

4. Student Voice and Choice

A challenging problem or question, students need to exercise making decisions about how to solve it. In other words, the project becomes a meaningful exercise as a set of directions to follow. Project-based learning calls for students to express voice choose choices throughout the project.

5. Reflection

The students and teachers need to reflect throughout the project in terms of the effectiveness of their inquiry and project activities, the work quality, the obstacles encountered, and how they overcome the obstacles. Project-based learning aims to prepare the students when they face a problem. They need to size a problem up and reflect on whether they have seen this type of the problem before and whether they have already developed knowledge and learning strategies that they can apply to solve it.

6. Critique and Revision

Project-based learning focuses on the importance of improving student work through critique and revision. When students receive feedback on their work from their teachers and peers, the students check and evaluate their work. In the project, the students are taught how to examine each other's work and how to give advice for improvement. Critique and revision is a the important part of the project.

7. Public Product

Project-based learning provides students opportunities to create a final product and share it with the real audience. First, the products in the project are considered as more real and consequential than a schoolwork that is only graded by the teacher and returned to the notebook. In addition, project-based learning stimulates the students to do their best because nobody wants to look bad or show a shoddy product in front of a public audience.

Constructive education

Learning should be active. The students need to acquire the knowledge from their own experiences and meaningful interaction with their environment. The students are encouraged to think about the prior knowledge and learn how to connect the new

knowledge with what they already know. This could help the students to understand the subjects, gain new knowledge, rather than just learning everything by rote.

Learning in a relevant context

Learning should be meaningful and in current issues in the society. Learning is a context-specific. The students are encouraged to tackle with the topics and issues related to their real-life or in their context. This makes learning more meaningful.

Collaborative learning

The students are encouraged to learn from and discuss with other by exchanging ideas with peers and giving the constructive feedback. The students are involved in the learning process and complete goals through the sharing of knowledge and understanding and social interaction. Learning is not an individual process; it is something you share group responsibility.

Self-directed education

The students are encouraged to manage their own learning by planning, monitoring, and evaluating. A teacher plays a role as a facilitator who facilitates and supports the students' learning. Managing their own learning could motivate their own learning and keep on life-long learning.

Characteristics of Project-based learning

The characteristics of project-based learning consist of (a) a student-centered learning activity in which students plan and accomplish the tasks; (b) challenging questions, problems or topics that students are interested and become the learning process of the projects; (c) a collaborative learning environment rather than a competitive atmosphere; (d) hands-on activities and the use of authentic resources and technologies; (e) complex explorations over a period of time; (f) the use of various skills

such as management skills and social skills; (g) the use of efforts in connecting ideas and acquiring new skills during different stages of projects; (h) the real-world and meaningful production that can be shared with peers, teachers, and community; (i) frequent feedback from peers and teachers; (j) assessment in both the process and product of the projects (Curtis, 2002; Helle et al., 2006; Laverick, 2018; Solomon, 2003; Stoller, 2002).

Bender (2012) proposed the components of project-based learning including the various activities that students involve in a project as follows: brainstorming in their groups, making choices from their voice, identifying motivating topics, determining products (a PowerPoint presentation, storyboard for a planned video, a report), dividing workload to each member, setting timeline for a project, searching for information, synthesizing the information, making decisions in teamwork, developing a final project product, and disseminate their work.

In conclusion, the characteristics of project-based learning include authentic product, critical thinking skills, collaboration through the process of project-based learning, making public and shared with peers, teachers, community members, and reflecting during and after finishing the project.

Benefits of Project-based Learning in English Classrooms

The project-based learning has been widely implemented in English classroom. Researchers have proposed the benefits of project-based learning consisting of the development of language skills up and fostering the students' personal growth.

First, four language skills: listening, speaking, reading, and writing skills are developed by a project since a project integrate all of the language skills behind the variety of activities in the project. Therefore, the students have opportunities to repeat learning in all the language skills (Haines, 1989; Levine, 2004).

Second, project-based learning develops metacognitive skills since the students are engaged in several individual or cooperative tasks such as initiating questions, making a plan, implementing the plan consisting of collecting, analyzing and reporting data orally or in writing (Beckett, 2002).

Third, when doing the project, the students are encouraged to work collaboratively to achieve the end product. This develops their confidence and interdependence (Fried-Booth, 2002). In addition, project work encourages the students to experience problem solving, negotiating, and other interpersonal skills, which are identified as important skills for living successful lives (Stein, 1995). Furthermore, Farouck (2016) asserted that the students' evaluation skills for presentation were developed and the students reduced communication anxiety after the implementation of the project-based learning.

Phases of Project-Based English Instruction

Project-based learning instructional procedures consist of four phases suggested by Larmer et al. (2015) that provide a sequence of learning activities throughout the instruction. They are 1) launching the project, 2) building knowledge, understanding, and skills, 3) developing, critiquing, and revising products, and 4) presenting products. Each phase is elaborated as follows.

Phase 1: Launching the project

The project is launched when the students choose the theme and form groups based on their interests. After the students study the issues about what they are interested in, the students need to discuss and help each other to propose the driving questions. Then, the students are required to find the ways that can serve their needs and answer the driving question. Furthermore, the students work in group to define the final products that might be the most appropriate answers for the driving question set for their project. Therefore, the students need to work in groups and help each other to discover the ways to produce a product that can answer the driving question.

Phase 2: Building knowledge, understanding, and skills

The work starts in this phase. Students acquire necessary knowledge and skills. In this phase, the teacher's main jobs are to guide students the inquiry process, and to provide them with scaffolding including direct instruction needed for the project. Moreover, the teacher needs to manage their student team work.

Phase 3: Developing, critiquing and revising products

In this phase, students apply what they are learning to develop possible answers to the driving question. In this phase, the teacher helps students apply learning to project tasks, provides additional experience to generate new knowledge and questions, and facilitate process for feedback.

Phase 4: Presenting products

Students try to explore the answers for the driving question and show their products in public. In this phase, both of the teacher and students evaluate work and facilitate student to give reflection on process and learning.

Teacher Roles in Project-based Learning

According to Larmer et al. (2015), the roles of the teacher refer to a facilitator, a coach, and a conductor. In the project-based learning, the teacher is still a content expert. Teachers decide the content knowledge for the students understand new ideas. The teachers involve students in scaffolding conversation and monitor how the project is carrying on. The teacher provides new resources and coaching. In addition, they play a role a project manager. The teachers create a classroom culture that promote project-based learning.

To foster teacher to conduct project-based learning, teacher consider and apply seven key practices essential to project-based teaching (Larmer et al., 2015) as the following section.

Design and Plan

Teachers can create or adapt a project for their context and students. However, teachers need to listen to students voice and choice for the project. Therefore, a project can start with ideas from both teacher and students. Teachers plan and design the framework for the project to make it work in the certain context and their students. This task may take time. In addition, it may be challenging for some teachers who are novice for project-based learning and they have mainly used traditional instruction for long time.

Align to Standards

Teachers should look at their content stands at the same time as they are developing idea for a project. Actually, the standards themselves may suggest a guideline for a project in the aspects of the topic and skills to focus.

To align a project standards, teachers should ensure that the products students produce will require the knowledge and skills laid out in the standards. Larmer et al. (2015) and Buck Institute for Education (2019) identified the key project standards teachers should consider along with the planning and designing process. The key project standards following the seven principles of project-based learning are as follows. First, the project focuses on a problem or question at the appropriate level of challenge. The project is forced by a driving question with several answers, and aligned with learning goals to acquire intended knowledge and targeting skills. Second, inquiry is sustained over time. Students need to pose questions, gather and interpret data, develop and evaluate solutions. The sustained inquiry process requires students to set individual goals, manage themselves and learning and then lead their own learning toward a common goal. Third, the project has an authentic context, involves real-world tasks and tools, serve students' personal concerns and interests. Fourth, teacher should provide students opportunities to express their voice and make choices on important matters, such as topics to investigate, questions asked, texts and resources used, people to work with, products to be produced, use of time, and organization of tasks. In addition, students have opportunities to take great responsibility and work as independently from the teacher as is appropriate, with supports and guidance. Fifth, teachers should provide students opportunities to give and receive feedback about the quality of their products from peers and teachers because students need feedback about their work to revise and improve their products. Sixth, students should be encouraged to provide reflection during the project and after conducting the project about what and how students learn throughout the project. Finally, student work is made public by presenting, displaying, or offering it to the audience beyond the class. Moreover,

students need to explain the reasons behind the products they created, their inquiry process, how they worked, and what they have learned.

Build the Culture

Teachers explicitly and implicitly foster student independence and growth, open-ended inquiry, team spirit, and attention to quality. Teacher can build this kind of culture in ways both explicit (e.g., slogans on the class wall or structured steps for inquiry) and implicit (e.g., how teacher responds to students question and how students are taught to discuss in groups). Teachers should make students know that they can explore different ways, propose various ideas to create the products. Furthermore, the students should have opportunities to voice their opinions and offer ideas about the project. Students need to understand that the project is open-ended that there is more than one way to investigate a topic, create a product, show what they know, and answer a driving question.

Manage activities

Teachers work with students to organize tasks and schedules, deadlines, find and use resources, create products and make them public.

Scaffold Student Learning

Teachers employ a variety of lessons, tools, and instructional strategies to support all students to complete the project. Scaffolding includes everything from structured lessons and lectures, to student handouts and readings, to tools and processes that support students in achieving the project. Teachers play an important role in structuring, supporting, and monitoring group discussion. It is not adequate to put students in a group and ask them to think deeply and collaborate without help and support from the teacher.

Assess Student Learning

Teacher use formative and summative assessments of knowledge, understanding, and success skills and include self and peer assessment of team work. Assessment in project-based learning requires teachers to go beyond the assignments, quizzes, tests, and other tools in the traditional instruction. Burke (2010) emphasize the need for both formative assessment used to inform students and teachers about progress on the project and summative assessment used to make a judgement about what has been learned.

Engage and Coach

Teacher engage students in their learning and work alongside them when they need help, encouragement, and celebration. Project-based learning engages students because students are required to work hard and learn through a challenging problem and question. Teachers have opportunities to share students' accomplishments and frustrations. This emotional involvement and knowledge of students engages students in their own thinking, working, and learning. The metaphors of a student as a worker and a teacher as a coach.

Previous Studies of Project-Based Learning in the Language Classroom

As evidenced in the literature, studies of project-based learning in the language classroom have revealed that English language skills were enhanced, especially writing skills. Additionally, the project-based learning could enhance not only language skills but also content knowledge.

To begin with, Shafaei and Rahim (2015) investigated the project-based learning on EFL learners' vocabulary recall and retention through experimental

approach. A semi experimental study was employed in the study. The participants were divided into two groups as follows: experimental group and control group. The experimental group was taught by project-based learning method while the control group was taught by usual conventional method practices. The participants aged 16-18 were in a private English language institute in Iran. They had the same level of vocabulary knowledge which was determined from the pre-test. The teaching instruments consisted of stimulus items and teaching materials that were used differently between experimental and control groups. The participants used the testing instruments consisting of a preliminary test and a vocabulary test. The findings showed that the participants in the experimental group had a significant development in their vocabulary recall and retention. Additionally, the experimental group revealed better retention of new vocabulary with higher level of the difficulty.

Additionally, Sadeghi et al. (2016) investigated the impact of project-based learning on comparison and contrast paragraph writing skills of Iranian EFL learners through experimental design. The quasi-experimental design was implemented in the research by dividing participants into one experimental group and one comparison group. The experimental group was taught using project-based learning designed by the researcher while the comparison group was taught using the traditional method. The researcher used the same pre-test and post-test in their writing skills. The participants aging from 16-23 years old were students at Sadra Language Institute in Yasouj. The treatments continued for ten weeks. The experimental group focused on group working that helped each other to plan and develop their writing related to the subtopics they had chosen. Additionally, the teacher assessed the students by observing them throughout the process of working on the projects as well as assessing the final projects.

Furthermore, the students were asked to undergo self-assessment and peer-assessment. The comparison group emphasized individual working. They needed to apply what they had learned to write their paragraphs without help from others. The teacher corrected their writing papers and gave scores to each of them. The findings showed that the participants in the experimental group had the positive effects of project-based learning in enhancing writing performance.

Furthermore, Poonpon (2017) explored the students' opinions about the implementation of project-based learning in a language classroom to apply their language skills and specific knowledge of science field to complete the tasks and how project-based learning may enhance their four English skills. The participants were undergraduate students with an average age of 20 majoring in Information Science in a Thai university. Students were required to work in groups and help each other to do an interdisciplinary-based project. One interdisciplinary-based project allowed the students each group to apply both knowledge of Information Science and English language skills to create a unique presentation on the theme: The Role of Information Science in Our Society. The presentation project could be done in various ways (e.g., a video presentation, a play, a showcase, a website, a chart, a cardboard, or a PowerPoint presentation) as long as their project revealed the use of Science knowledge and English language skills. The examples of the projects from each group in the research consisted of a website presenting information about digital libraries and asking web visitors to share their opinions about digital libraries, a TV program and video interviews the other students about the role of Information Science in their real life, and a stage performance revealing the disadvantages of Information Science on Thai families. The semi-structured interview was employed to obtain the students' opinions towards

implementing the project. The projects were evaluated based on three major areas: content of the presentation, language, and creativity. The results showed that the implementation of project-based learning in a language classroom help learners to improve English skills in a real-life context by integrating English skills and content knowledge throughout the process of completing the projects.

Previous Studies of Project-Based Learning on Learner Autonomy

Studies of project-based learning on learner autonomy have yielded positive results. Studies have reported that project-based learning has helped students develop the degree of learner autonomy as well as improve their language skills.

Firstly, Pisitsenakul et al. (2013) aimed to study EFL teachers' belief toward learner autonomy of students of Rajamangala University of Technology Lanna Pitsanulok and explored the opinion of the students toward project-based learning. The participants of the study consisted of both 10 lecturers of English for international communication department and 30 of 2nd years students who studied English for Career in the first semester. The instructional instrument was project-based learning activities. The research instruments consisted of learner autonomy questionnaire and autonomy competence questionnaire. The results revealed that EFL lecturers believed that learner autonomy could be developed to reach high level. In addition, learner autonomy yielded positive results toward language learning and teaching. The lecturers also believed that instructions play an important role to foster learner autonomy. Furthermore, the students agreed that project-based learning activities helped them to possess more learner autonomy. However, they suggested that the details of instruction should be added to help the students better understand when doing the activities.

Secondly, Pichailuck (2017) explored how project-based learning can enhance learner autonomy of sixth-graders from a rural school in Northeastern Thailand. Ten students were selected for a focus group by using a purposive sampling in order to investigate as in-depth case studies. The participants were divided into three groups as follows: strong students obtained a GPA of 4, moderate students obtained GPAs of 3-3.5, and weak students obtained GPAs of 2-3. There were two constraints of implementing project-based learning course. Firstly, the participants did not have a computer or internet at home. Secondly, the researcher was encountered with the scope of content to cover. However, the 14-week project-based learning course could be continued. The three projects consisted of Aesop's fables role play, the survey project, and the cooking project. The research instruments used in the study consisted of field notes, interviews, diaries, and observation to obtain qualitative data. The qualitative data was analyzed by using content analysis. The results indicated that the participants developed the level of learner autonomy after implementing project-based learning. Moreover, the scores of grade 6 students' the national standardized achievement test were higher than the previous years.

Summary

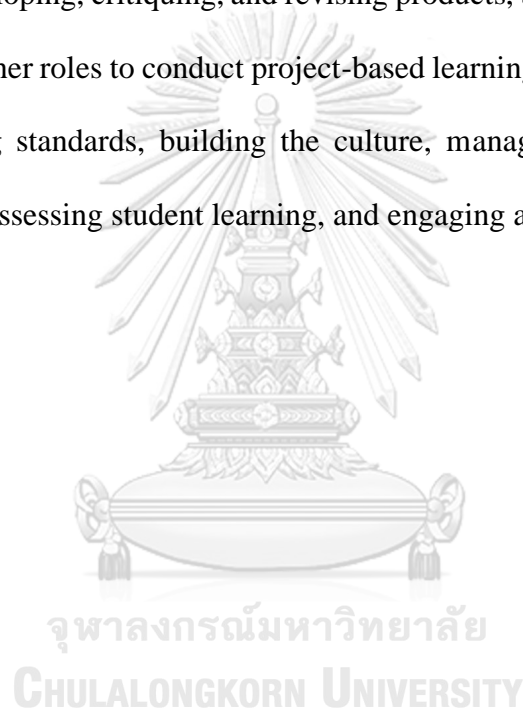
The literature review in the present study elaborated on two main concepts including learner autonomy and project-based learning. Therefore, there were two sections of the literature review in this chapter as follows.

In the first section, learner autonomy was defined as the ability to take responsibility for their own learning by having choices and decision-making opportunities to determine the objectives, implement the learning strategies, monitor

the process of autonomous L2 learning, and evaluate the efficacy of autonomous L2 learning. Autonomous learners possess willingness and ability to take control over their own learning. They believe in their language learning ability to be a language learner and language user in the diverse situations. They have feeling of language learners such as agreement and disagreement towards tasks. Additionally, they learn language independently. The characteristics of autonomous learners consist of setting learning goals, choosing methods and techniques to complete the tasks, monitoring the learning process, evaluating the tasks, and reflect what has been learned. The approach that the present study employed was the classroom-based approaches to make change the roles of the teacher and learners in the classroom that shifts from teacher-centered setting to learner-centered setting by providing the learners opportunities to have choices and make decision for their own learning. The roles of teachers to promote learner autonomy consists of a facilitator who can give students supportive and caring situations and help students to have self-management, a counselor who can give students advice to overcome obstacles, and a resource who can provide useful resources when students need. The assessment of learner autonomy used in the present study consisted of the questionnaire, learning log, and interview.

In the second section, project-based learning is a pedagogical approach that involves students in the learning environment, setting questions, investigating, collecting the data, creating the production, discussing to improve the product and reflecting the strength and weaknesses during the learning process. The characteristics of project-based learning include authentic product, critical thinking skills, collaboration through the process of project-based learning, making public and shared with peers, teachers, community members, and reflecting during and after finishing the

project. The principle of project-based learning that the teachers need to consider when they design project-based learning in the learning process of the students consist of initiating challenging problems or questions, sustaining inquiry, using authenticity, encouraging student voice and choice, giving reflection, providing critique and revision, and showing public product. There are four phases of project-based English instruction including 1) launching the project, 2) building knowledge, understanding, and skills, 3) developing, critiquing, and revising products, and 4) presenting products. Additionally, teacher roles to conduct project-based learning consist of designing and planning, aligning standards, building the culture, managing activities, scaffolding student learning, assessing student learning, and engaging and coaching.



CHAPTER 3

RESEARCH METHODOLOGY

Research Design

This study employed a one-group pretest-posttest design (Creswell & Creswell, 2017). The quantitative and qualitative data were collected and analyzed. The quantitative data obtained from the learner autonomy questionnaire were analyzed to investigate the effects of project-based English instruction on learner autonomy of lower secondary school students. The qualitative data received from the learning logs and semi-structured interviews were employed to triangulate the questionnaire findings. Project-based English instruction was conducted with the participants in an additional course “Learning English through a Project” in the second semester of the academic year 2021. In the first phase, the learner autonomy questionnaire was utilized to measure the levels of learner autonomy of lower secondary school students before the implementation of project-based English instruction. During the intervention, the students needed to do the learning log each week to express the development of learner autonomy. At the end of the instruction, the learner autonomy questionnaire was used to measure the levels of learner autonomy of lower secondary school students. Additionally, the semi-structured interviews were administered to obtain the data about the development of learner autonomy after the intervention.

Population and Participants

The population in this study was Thai lower secondary school students in regular programs in medium-sized schools in the eastern part of Thailand. The

participants were selected by using convenience sampling. The participants in the present study were 39 Thai lower secondary school students who were studying in a regular program at a public school in the eastern part of Thailand and took an additional course “Learning English through a Project”. Their ages ranged from 12 to 16 years old. There were 20 males and 19 females. The participants possessed different English proficiency based on their English grades. In addition, they had learned English for at least 6 years in the same regular program, curriculum, and school. Furthermore, they lived in the same area and experienced the same social environment. Last but not least, they had never previously participated in the project-based English instruction. Therefore, they were novice participants in the project. Based on the selected content, the themes required for ninth grade graduate were examined and covered. In addition, there were 6 participants selected as participants for interview. These 6 participants were based on their progressive rates of learner autonomy obtained from the mean scores of the post-questionnaire, including 2 participants from low progressive rate group, 2 participants from moderate progressive rate group, and 2 participants from high progressive rate group. Furthermore, the learning logs from these 6 participants were analyzed.

The participants were selected based on the three main reasons to make sure that they could do the learning activities in the project-based English instruction effectively to be able to answer the research question. First, the students were required to have content knowledge in other subjects to be able to use the background knowledge to explore more information and understand the content. The lower secondary school students have learned various kinds of contents through required subjects in the educational system for twelve years. Therefore, they were assumed that they have

gained adequate background knowledge for the study. Second, the students were required to complete the project by using the English language skills. The lower secondary school students have studied English for at least twelve years in school. As such, they were predicted that they possessed sufficient English language proficiency that could help them complete the project and connect the prior knowledge with the new language knowledge. Finally, the students needed to be able to have technological skills in order to learn online and do the activities through various online platforms. Because of the COVID-19 outbreak, the lower secondary school students needed to learn online and do the learning activities through various online platforms in school subjects in the first semester of the academic year 2021. Therefore, they were predicted that they could learn online and do the learning activities through various online platforms under the project-based English instruction effectively.

The participants were provided the consent form written in Thai. The consent form introduced the purpose of the study, what the participants needed to do, advantages for the students from the study, and the use of the data obtained from the study. The researchers asked the participants to read the consent form and ask the questions they desired to know about the study to make a decision on whether to participate in the study or not. To keep the confidentiality of the participants and protect the participants' personal information, the real names of the participants were replaced with the pseudonyms. The researcher asked the participants to set their own pseudonyms used in the study.

Instruments

In the present study, two types of instruments including instructional and research instruments were employed. The instructional instruments in this study were

a long-range plan of project-based English instruction and lesson plans of project-based English instruction. The three research instruments referred to the learner autonomy questionnaire, learning log, and interview.

Instructional Instrument

The long-range plan of project-based English instruction and lesson plans of project-based English instruction were designed as an additional course to enhance learner autonomy in English learning. The course was entitled “Learning English through Project”. The course syllabus is shown in APPENDIX L. The long-range lesson plan was developed as an overview of the instruction covered for 14 weeks. The project-based English instruction consisted of four phases adopted from Larmer et al. (2015).

Course Development Process

The framework of the course development process was suggested by Graves (2000). The course development process consisted of defining the context, articulating beliefs, assessing needs, formulating goals and objectives, conceptualizing content, organizing the course, developing materials, and designing an assessment plan.

Defining the context

Firstly, the crucial English learning requirements for ninth-grade graduates in the Basic Education Core Curriculum (Ministry of Education, 2008) were studied. The learners are expected to possess the ability to use the English language for communication in order to express feelings and opinions, and to present information on various issues with appropriate use of language in certain occasions and places. In addition, the learners are required to use the English language to seek knowledge, engage in a livelihood, promote further education and exchange the information with

the global society. Also, understanding the diversity of culture between native speakers and Thai speakers is one of the requirements of the curriculum.

Additionally, the context of the school in the study was explored. The findings revealed that the school is a coeducational school that provides education for both male and female students. It is considered as a medium-sized school divided into primary levels and lower secondary school levels. For lower secondary school levels, the students need to take an English core course three times a week. The additional English courses are not provided for the students. Thus, the period of the moderate class, more knowledge activity was chosen to conduct the research in order to avoid interrupting the English core course. Additionally, the school offers only a regular program that offers the instruction based on the Basic Education Core Curriculum and uses Thai as the medium of instruction in all subjects.

Articulating Beliefs

Learner autonomy is considered as one of expectation of foreign language education. Students are expected to become autonomous learners who can take responsibility for their own learning and make learning decisions. Autonomous learners know the reasons why they need to learn and how to learn. As a result, language learning can occur anytime and anywhere since the students can set their own learning goal, identifying learning strategies, monitoring their own progress, and evaluating their own learning performance for what they need to learn. In addition, students regarded as an autonomous learner can prepare themselves for unpredictable problems and intensive competitions in the rapidly changing world in the terms of using English language as a tool to learn new things and practice necessary skills that are suitable for current situations.

Apart from learner autonomy, collaborative learning is one of educational approaches that promotes language learning. The process of collaborative learning encourages the students to learn through working together. The students work in groups in order to share their opinions, solve the problems, learn new concepts, and complete the project together. Therefore, the students can learn English language through the process of collaborative learning that students with high language proficiency can assist the students with low language proficiency when they have to explore the information and share what they have learned together.

Assessing Needs

Thai Basic Education Core Curriculum (Ministry of Education, 2008) was examined on the themes that lower secondary school students need to cover. The themes were the choices for the students to choose as the class theme for the project. The ten themes from the curriculum included families, schools, the environment, foods and beverages, health and welfare, climates, education and occupations, travel for tourism, provision of services, and science and technology.

Formulating Goals and Objectives

The course consisted of two learning outcomes. First, the students will be able to produce a project product based on the chosen theme. Second, the students will be able to present a project product in English.

To reach the learning outcomes, students need to complete the following objectives. After the lessons, students need to be able to choose a class theme, explore the problems about the chosen theme, create a driving question for the project, construct necessary knowledge, understanding, and skills for the project, plan for the project,

collect the data, analyze the data, develop a project product, revise a project product, and present a project product in English.

Conceptualizing Content

The course provided students opportunities to choose a theme they were interested in to carry out the project. As such, each lesson's content was designed based on students' needs.

After the researcher asked the students to choose one theme out of the ten themes, the results revealed that most of the students chose the theme "School". The reason provided by the students why they chose this theme was that the theme was most related to their life and meaningful. Moreover, they believed that they had ability to complete the project since they were familiar with the theme and could understand the content better when compared the other themes.

After choosing the theme, students needed to work in groups to explore the problems or the current situations about the chosen theme "School". After sharing the problems related to the theme, students chose one problem most related to their lives. The chosen problem was that students could not understand some difficult content in school subjects. A driving question was created to guide students to explore the solution for the problem. The driving question was "How can we understand difficult content in school subjects?". Then, the students discuss in their groups and then with the whole class to define the end products that they could produce and answer the driving question. The chosen final product for the project was a poster that provided the learning strategies to help them learn difficult content in the school subjects. Each group discussed to choose a school subject to explore the learning strategies to understand the

difficult content they did not understand. In addition, the students chose the survey methods to collect the information to produce the product.

Therefore, the content during the project was designed by the researcher to help students explore the answers for the driving question. Students needed to learn the survey methods, how to create survey questions, how to create an online survey form, how to collect the data using a survey method, how to analyze the data, and how to create a poster. Besides the project activities, the language outcomes the students were required to reach consisted of describing the process, giving the reasons, describing the problems, discussing in groups, expressing opinions, giving advice, and tell the future plans for their learning.

Organizing the Course

The course was organized based on students' project. After choosing the class theme and proposing a final product for the project, the necessary content and skills were organized in the course to help students produce a project product step by step. The total week in the course was 14 weeks. Each lesson was designed for one week. Each lesson took 90 minutes (see the course syllabus in APPENDIX L).

Developing Materials

The materials used in the course included videos, a PowerPoint presentation, a handout, and worksheets. All the materials were designed by the researcher for each lesson. First, the videos were created to serve the lessons' learning outcomes and posted on YouTube. The videos consisted of the content about project-based lessons, choosing a class theme, products of projects, creating survey questions, making a project plan, how to analyze the data, how to create a poster, how to give feedback, and how to give a critical reflection. Second, a PowerPoint presentation about survey methods was

created to help students know various kinds of survey methods and choose a survey method for their project. Third, a handout created for a lesson was about how to create a survey using Google Form. Finally, worksheets about vocabulary and expressions in each lesson were created on Wordwall and Google Classroom.

Designing an Assessment Plan

The tools employed to assess the students' learning performances were developed to align both learning outcomes. The learning outcomes of the course were to produce a project product based on the chosen theme and present the project product to the audience. In the present study, the tools utilized as assessment were rubrics, self-assessment, peer-assessment, and teacher-assessment (see Poster Rubric in APPENDIX M).

Instructional Instrument Development

In the present study, instructional instruments consisted of a long-range plan of project-based English instruction and lesson plans of project-based English instruction.

Long Range Lesson Plan

A long range lesson plan was developed as an overview of the instruction covered 14 weeks. It showed the phases of project-based learning, the content and learning outcomes of project-based learning and language learning in each lesson. Each lesson was implemented once a week and took 90 minutes (see the long range lesson plan in APPENDIX G).

Validation

To examine the validity of long range lesson plan. It was validated by three experts who have more than ten years of English language teaching (see the list of

experts of learner autonomy in APPENDIX A). The researcher constructed an Index of Item Objective Congruence (IOC) form to examine content validity, whether or not the long range lesson plan were appropriate and align with the principles of project-based learning including challenging problem or question, sustained inquiry, authenticity, student voice and choice, critique and revision, reflection, public product, and topics in the long range lesson plans. The IOC index ranges from -1 to 1 as follows:

1	means	the item is appropriate
0	means	the item is unsure
-1	means	the item needs improvement

After the experts had validated the long-range lesson plan, the gained scores were calculated. Based on the formula used for calculation of IOC value, if IOC value is higher than 0.50, it means that the research instrument is accepted. On the other hand, IOC value is lower 0.50 means that the research instrument needed to be revised. The total Index Objective Congruence of three experts' opinion was at 0.96. The results revealed that the long-range lesson plan was accepted to implement in the present study. One expert suggested that the product should be presented to the audience beyond the class.

Lesson Plans of Project-based English Instruction

To construct lesson plans of project-based English instruction, the researcher studies the context of the school, Thai Basic Education Core Curriculum (Ministry of Education, 2008) on the themes that lower secondary school students need to cover, and phases of project-based learning for instruction (see the sample of the lesson plans in APPENDIX H-K). The framework of project-based English lesson plans was

adopted from Larmer et al. (2015). The phases of project-based lesson plans consisted of four phases as follows: Phase 1: launching the project, Phase 2: building knowledge, understanding, and skills, Phase 3: developing, critiquing, and revising products, and Phase 4: presenting products.

Phases of Project-based English Lesson Plans

Each phase of the project work is described as follows.

Phase 1: Launching the project

This phase aimed at preparing the students to develop a project. In this phase, the students were required to make understanding project orientation, choose a class theme, explore the problems related to the chosen theme, create a driving question, and propose the project product. After the students had learned about the project, the students had an opportunity to choose the class theme by themselves. The students chose the theme “School” as the class theme. The students formed groups for the project. After the students had formed their groups, the students needed to explore the problems or the current situations about the chosen theme “School”. Each group was required to create a presentation to share the problems about the school in class. Then, the students discussed with the whole class to choose one of the problems presented. The chosen problem was that they did not understand the difficult content in the school subjects. Once the students had the problem, they created a driving question that can be a guideline to help them to solve the problems. The driving question was “How can we understand the difficult content in the school subjects?” Then, the students discuss in their groups and then with the whole class to define the end products that they could produce and answer the driving question. The chosen final product for the project was a poster that provided the learning strategies to help them learn difficult content in the

school subjects. Each group discussed to choose a school subject to explore the learning strategies to understand the difficult content they did not understand. In addition, the students chose the survey methods to investigate the information to produce the product. Besides the project activities, the language outcomes the students were required to reach consisted of describing the process, giving the reasons, describing the problems, and discussing in groups.

Phase 2: Building knowledge, understanding, and skills

This phase aimed at providing knowledge and necessary skills that facilitate them to complete their projects. Therefore, the students needed to learn the content about survey methods, how to creating survey questions, and how to create an online survey form. In the part of language learning, the students could give the reasons, expressing opinions, and giving advice.

Phase 3: Developing, critiquing, and revising products

This phase aimed at applying what the students have learned to develop their products through the critiquing and revising process. The students planned in group to develop the group products. They started their plans with the data collection. Then, the students helped each other to analyze the data they gained. Once the students analyzed the data, the students needed to learn how to produce a poster using Canva. Next, they made the first draft of a poster and shared with the class. The teacher and peers gave the feedback on the posters presented. After receiving the feedback, each group discussed what they needed to revise or add more information. The language outcomes in the phase consisted of expressing opinions, expressing agreement and disagreement, and giving the reasons.

Phase 4: Presenting products

This phase aimed at asking each group to present their final group products. In this phase, the students presented their final group products to the audience beyond the class. They posted their posters on School's Facebook. The teacher and peers gave feedback towards the posters. Each group used a poster rubric to assess and evaluate the posters (see the poster rubric in APPENDIX I). In addition, the students were required to give reflections towards the learning process during the project. The language outcomes consisted of suggestion and telling the future learning plan.

Validation

To examine the validity of the lesson plans, they were validated by three experts who have more 10 years of English language teaching (see the list of experts of learner autonomy in APPENDIX A). The researcher constructed an Index of Item Objective Congruence (IOC) form to examine content validity, whether or not the lesson plans were appropriate and align with the principles of project-based learning. Additionally, learning outcomes, content, teaching procedures, assessment, materials, and time allocation were checked. The IOC index ranges from -1 to 1 as follows:

1	means	the item is appropriate
0	means	the item is unsure
-1	means	the item needs improvement

After the experts had validated the learning log questions, the gained scores were calculated. Based on the formula used for calculation of IOC value, if IOC value is higher than 0.50, it means that the research instrument is accepted. On the other hands, IOC value is lower 0.50 means that the research instrument needed to be revised.

The total Index Objective Congruence of three experts' opinion was at 0.92. The results revealed that the lesson plans were accepted to employ in the research. However, one expert suggested to identify more specific language learning outcomes for each lesson. The second one concerned about how the students struggled to propose the final products because they were new in the project. The teacher should review the project products they have learned from the pre-class activities and give examples of project product they could do to answer the driving question. According to the experts' suggestion, the researcher revised the lesson plan accordingly.

Reliability

After the validation, the lesson plans were piloted with 10 participants who had similar characteristics with the participants of the study in terms of English proficiency and educational background to make sure that the students were able to understand the instruction of each activity and complete the activity in time. The students had some problems about using Zoom at the beginning because this was the first time for them to learn online using Zoom. Once they could adjust themselves to get familiar with the tools they can use in Zoom and the ways to use Google applications, namely, Google Doc., Google Classroom, and Google Slides, they felt comfortable to engage more in the learning activities.

Research Instruments

In the present study, the research instruments consisted of the Measuring Instrument Language Learner Autonomy (MILLA), semi-structured interview and learning log. The Measuring Instrument Language Learner Autonomy was employed to measure the levels of learner autonomy. The semi-structured interview and learning

log were utilized to triangulate the findings of the Measuring Instrument Language Learner Autonomy questionnaire.

Learner Autonomy Questionnaire

In the present study, the researcher adapted the learner autonomy questionnaire from the Measuring Instrument for Language Learner Autonomy (MIILA) Murase (2015). The questionnaire consisted of 50 items with five Likert's scale options as follows: strongly disagree, disagree, not sure, agree, and strongly agree). The questionnaire consisted of demographic and learner autonomy scale sections. The demographic information section elicited the participants' data about their name, age, and gender. The learner autonomy scale section consisted of 50 items under four dimensions of learner autonomy as follows: technical autonomy (15 items), psychological autonomy (16 items), political-philosophical autonomy (12 items), and socio-cultural dimension (7 items). In the present study, the rating scores were interpreted using the following criteria Swatevacharkul and Boonma (2021). The rating scores of 4.21-5.00 means very high level of learner autonomy, 3.41-4.20 means high level, 2.61-3.40 means moderate, 1.81-2.60 means low, and 1.00-1.80 means very low. The range of 0.8 for each level was calculated by the maximum scale of the Likert-scale (5) minuses the minimum scale (1) and divided by the maximum value of the scale (5) (see the questionnaire in APPENDIX B).

Validation

To examine the validity of the questionnaire, The back translation was used to validate the learner autonomy questionnaire to check semantic equivalence. The steps of back translation were as follows. Firstly, the learner autonomy questionnaire was translated into Thai version by the researcher and checked the appropriate and correct

translation by the researcher's advisor and two Thai teachers who have six-year teaching experience. After that, the learner autonomy questionnaire in Thai version was sent to the first expert who is an English educator who have taught English as a foreign language more than 10 years. The first expert was required to translate the Thai version of the learner autonomy questionnaire into the English version. Then, the English version translated from the first expert was sent to two experts who are native speakers to compare the semantic equivalence from both the translated version which is translated from Thai to English version from the first expert and the original version of the learner autonomy questionnaire (see the list of the experts of back translation in APPENDIX A). In other words, the purpose of comparison of two versions of the questionnaire was to check whether the translated version from the first expert remained the same meaning from the original learner autonomy questionnaire or not. The Learner Autonomy Questionnaire Comparison Form ranges from -1 to 1 as follows:

+1	means	Acceptable
0	means	Unsure
-1	means	Unacceptable

After the experts had validated the questionnaire. The gained scores were calculated. The overall index of the Learner Autonomy Questionnaire Comparison Form was at 0.95. The results revealed that each item in questionnaire had the semantic equivalence with the agreement of the experts.

Reliability

After the validation, the questionnaire was piloted with 65 lower secondary school students in other schools in the area to ensure that the students could clearly understand all of the questionnaire items. The results revealed that there was no difficulty or problems for the students to complete the learner autonomy questionnaire. After calculation to check reliability in PSS, Cronbach's Alpha coefficient was 0.98, suggesting that the questionnaire items had internal consistency.

Semi-structured Interview

In the present study, a semi-structured interview was employed to triangulate the questionnaire findings. The interview questions were constructed to align with the four dimensions of learner autonomy in the questionnaire. First, to align with the technical dimension, the interview question was designed to elicit the learners' abilities concerning with using both cognitive and metacognitive strategies to manage their own learning in the situation in which they need to learn English by themselves (Question 1). Second, to align with the psychological dimension, the interview questions were developed to draw on the learners' abilities related to using learning strategies to motivate themselves to learn (Question 2) and reduce anxiety when learning English (Question 3 and 3.1). Third, to align with the political-philosophical dimension, the interview questions were created to obtain the data about the learners' abilities to make decisions about their own learning and negotiate with the teacher about the learning activities (Question 4, 4.1, 5, 5.1). Finally, to align with the socio-cultural dimension, the interview questions were developed to receive the data about the learners' abilities to learn from others through social interaction in various contexts (Question 6, 6.1,7,7.1).

During the interview, to avoid language barriers and make clear understanding, the interview was administered in Thai. The students who were interviewed were selected based on their levels of learner autonomy obtained from the mean scores of the pre-questionnaire, including 2 participants with low level of learner autonomy, 2 participants with moderate level of learner autonomy, 2 high level of learner autonomy.

Validation

To examine the validity of the interview, the 6 main interview questions and 3 sub-questions were developed in Thai. They were validated by three experts who have worked in learner autonomy field (see the list of experts of learner autonomy in APPENDIX A). The researcher constructed an Index of Item Objective Congruence (IOC) from to examine content validity, whether or not the interview questions were appropriate to measure the development of learner autonomy after the implementation of project-based English instruction. The IOC index ranges from -1 to 1 as follows:

1	means	the item is appropriate
0	means	the item is unsure
-1	means	the item needs improvement

After the experts had validated the interview questions, the gained scores were calculated. According to the calculation of IOC value, if IOC value is higher than 0.50, it means that the research instrument is accepted. On the other hand, IOC value is lower 0.50 means that the research instrument needed to be revised. The total index of Item Objective Congruence (OIC) of three experts' opinions on interview questions was at 0.73. The results revealed that the interview questions were accepted to employ to investigate the effects of project-based English instruction on learner autonomy of

lower secondary school students. However, there were some interview questions needed to be revised following the comments and suggestions from the experts. The interview questions needed to be revised were 4 and 6. The revised items are presented and explained as follows.

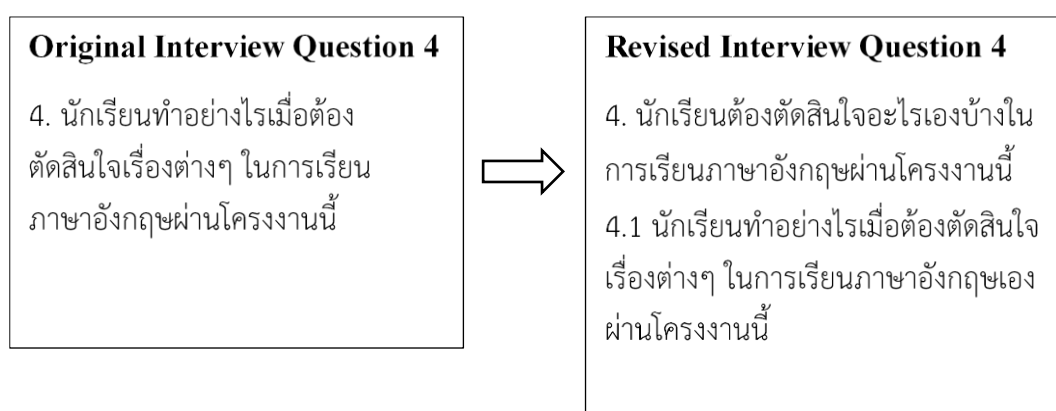


Figure 2 Revised Interview Question 4

According to the comment from the expert, the interview question 4 needed to be revised because the question 4 needed some time for the students to think about what the students had made decisions first and then how they did. Therefore, the researcher should provide time for the students to think about what they had made decisions before reporting how they made decisions. To help the students have enough time to think about the answers, the researcher therefore added one sub-question (4.1) into question 4 accordingly.

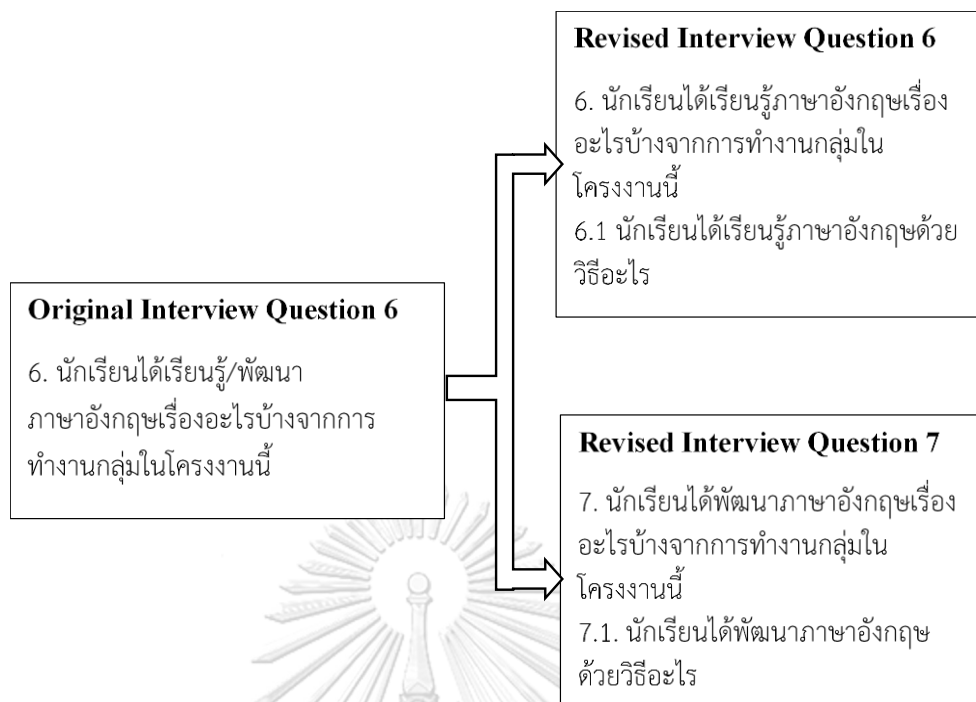


Figure 3 Revised Interview Question 6

According to the comment from the expert, the interview question 6 had to be revised because the question 6 wanted more than one key point for the answer. This might make them confused to answer the question. Therefore, the researcher should separate the question 6 into 2 main questions and add a sub-question for each. To avoid confusion, the researcher therefore separated the question 6 into 2 main questions (Question 6,7) and added a sub-question for each main question (Sub-question 6.1,7.1) accordingly.

Reliability

After the validation, the interview questions were piloted with 5 lower secondary school students who were randomly selected from the participants in the pilot group of the lesson plans to make sure that the students could clearly understand all of the interview questions. After the pilot, the students were interviewed about the understanding of the interview questions and process of the interview. The results

demonstrated that the students clearly understood the interview questions and the interview atmosphere made them feel comfortable to answer the questions.

Learning Log

In the present study, learning log data was employed to triangulate the questionnaire findings. The two learning log questions were constructed to align with the four dimensions of learner autonomy in the questionnaire. The students were required to write the learning log in Thai each week after the implementation of project-based English instruction. The first question was constructed to align with the technical and sociocultural dimensions. The question was used to elicit the data about the learners' abilities concerning with using both cognitive and metacognitive strategies to manage their own learning in the situation in which they need to learn English by themselves and receive the data about the learners' abilities to learn from others through social interaction in various contexts (Question 1). The second question was constructed to align with the psychological and political-philosophical dimensions. The question was developed to draw on the learners' abilities related to using learning strategies to motivate themselves to learn and reduce anxiety when learning English and obtain the data about the learners' abilities to make decisions about their own learning and negotiate with the teacher about the learning activities (Question 2). The learning log data from the same 6 participants selected for the semi-structured interview were analyzed to triangulate the questionnaire findings.

Validation

To examine the validity of the learning log, the 2 main learning log questions were developed in Thai. They were validated by three experts who have worked in learner autonomy field (see the list of experts of learner autonomy in APPENDIX A).

The researcher constructed an Index of Item Objective Congruence (IOC) form to examine content validity, whether or not the learning log questions were appropriate to measure the development of learner autonomy after the implementation of project-based English instruction. The IOC index ranges from -1 to 1 as follows:

- | | | |
|----|-------|----------------------------|
| 1 | means | the item is appropriate |
| 0 | means | the item is unsure |
| -1 | means | the item needs improvement |

After the experts had validated the learning log questions, the gained scores were calculated. Based on the formula used for calculation of IOC value, if IOC value is higher than 0.50, it means that the research instrument is accepted. On the other hand, IOC value is lower 0.50 means that the research instrument needed to be revised. The total Index Objective Congruence of three experts' opinion was at 0.83. The results revealed that the learning log questions were accepted to employ to investigate the effects of project-based English instruction on learner autonomy of lower secondary school students. However, there were some learning log questions needed to be revised following the comments and suggestions from the experts. The learning log question needed to be revised was 2. The revised item is presented and explained as follows.

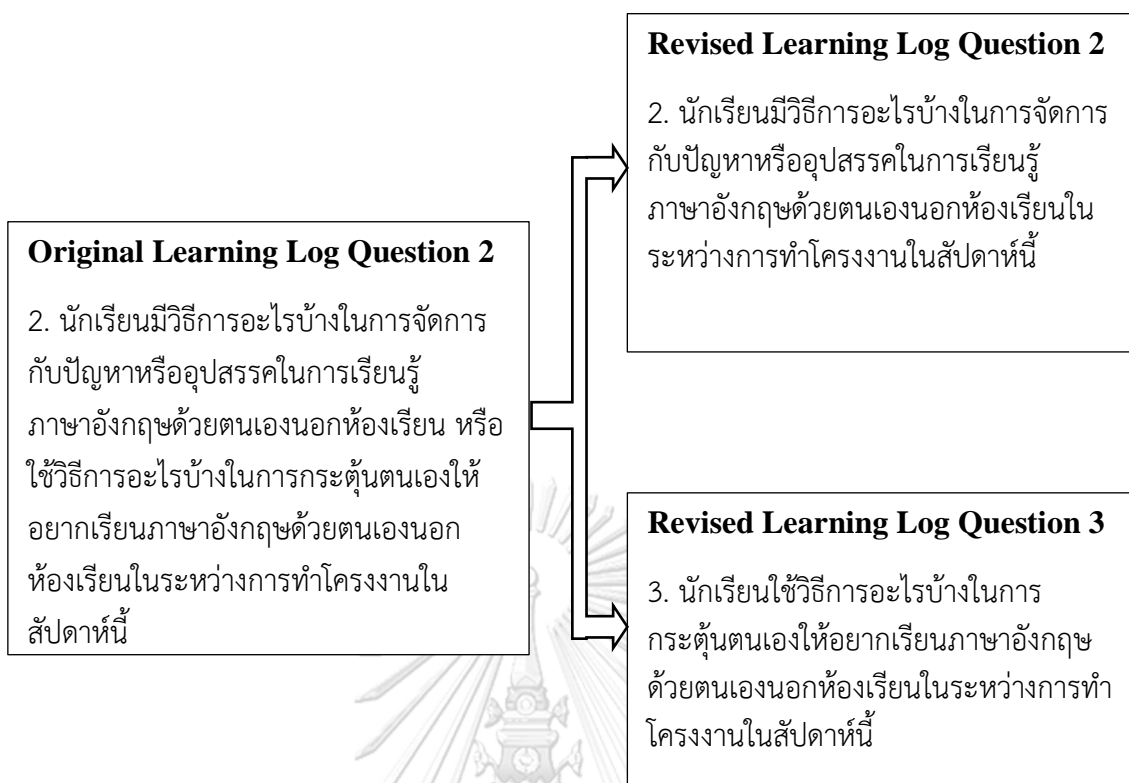


Figure 4 Revised Learning Log Question 2

According to the comment from the expert, the interview question 2 had to be revised because the question 2 wanted more than one key point for the answer. This might make them confused to answer the question. Therefore, the researcher should separate the question 2 into 2 main questions. To avoid confusion, the researcher therefore separated the question 2 into 2 main questions (Question 2,3) accordingly. Therefore, the learning log questions consisted of 3 questions after the validation (see the learning log questions in APPENDIX D).

Reliability

After the validation, the learning log questions were piloted with the same 5 lower secondary school students of the interview pilot group to make sure that the students could clearly understand all of the interview questions. After the pilot, the

students were interviewed about the understanding of the interview questions and process of the interview. The results demonstrated that the students clearly understood the learning log questions.

Data Collection

In the present study, the researcher collected qualitative data and quantitative data in three phases: before, during and after the implement of project-based English instruction. Each project-based English lesson lasted 90 minutes once a week in the Learning English through Project Course. There was no grade and score for this course but it was class requirements of the school curriculum. Before conducting the data collection process, the consent form was sent to the participants to ask for the permission to collect the data from them. The participants were informed that all the data obtained during the research conducting would be kept confidential. The following sections elaborate the data collection process of steps in details.

Before the implementation

During this step, the learner autonomy questionnaire was administered to each participant in order to investigate the levels of learner autonomy before experiencing project-based English instruction. All participants were asked to complete the questionnaire to obtain their demographic information and check the levels of learner autonomy before starting project-based English instruction through online.

During the implementation

During each week of project-based English instruction, the participants were asked to keep track their learning by writing the learning log. After finishing the lessons

of project-based English instruction each week, each participant was asked to write the learning log by using guided questions in the learning log provided by the researcher.

After the implementation

After finishing project-based English instruction, the data from the learner autonomy questionnaire and interview were collected. The participants completed the learner autonomy questionnaire to examine the levels of learner autonomy. The data obtained from the learner autonomy questionnaire were analyzed to check whether there were any changes on their levels of learner autonomy. Additionally, the interview was conducted with the participants. The data from the interview was analyzed and used to triangulate the findings of the learner autonomy questionnaire. Each participant was interviewed in Thai to reduce the language barriers by the researcher one-by-one and the interview was audio recorded.

Data Analysis

The data from the research instruments were analyzed as follows;

To answer the question “How does project-based English instruction affect learner autonomy of lower secondary school students?”, the learner autonomy questionnaire was employed to investigate the level of learner autonomy before and after participating project-based English instruction. The quantitative data from the learner autonomy questionnaire were analyzed using the paired-sample t-test to check whether the mean scores of the learner autonomy questionnaire between before and after implementation of the English instruction using project-based learning were significantly different.

Moreover, the data obtained from the learning log and the learners’ interviews were used to triangulate the findings of the learner autonomy questionnaire after

experiencing project-based English instruction. The qualitative data from the learning log and the learners' interview were analyzed using coding method.

According to Charmaz (2006, p. 43), coding refers to “a method of categorizing segments of data with a short name that simultaneously summarizes and accounts for each piece of data.” It consisted of three steps as follows: opening coding, axial coding, and selective coding. To check the reliability of coding, the inter-rater reliability was employed in this study.

In the opening coding step, the researcher read a transcript of each learners' learning log and interviews. Then, the researcher attempted to identify meanings of learner's responses by examining the data closely. Next, the researcher coded any parts of the data that revealed information about the learner autonomy's characteristics. Afterwards, the researcher wrote a memo reflecting initial conclusions about the data. Writing the memo kept the researcher involved in the data analysis process and helped to increase understanding in terms of abstract of ideas because certain codes would stand out. In the during axial coding step, the researcher attempted to explore behaviors that emerged from the coding to make the categories. In the last stage, selective coding, the researcher analyzed the data once again and referring to the previous coding that had been carried out in order to make themes for the data. The behaviors emerged from the coding were utilized to support the results of the learner autonomy questionnaire.

CHAPTER 4

FINDINGS

This chapter presents the findings from the questionnaire, learning logs, and interview about the effects of the project-based English instruction on learner autonomy of lower secondary school students. The adapted version of the Measuring Instrument for Language Learner Autonomy (MILLA) was used to measure the levels of learner autonomy before and after the participants attended the project-based English instruction. During the instruction, fourteen learning logs were kept by all participants. Lastly, six participants were interviewed about their experience during the instruction. The data from the three sources were triangulated to gain a comprehensive understanding of the situation.

Research Question: How does project-based English instruction affect learner autonomy of lower secondary school students?

The effects of the project-based English instruction on learner autonomy of lower secondary school students before and after the study were examined using the Measuring Instrument for Language Learner Autonomy (MILLA). The data were then triangulated with the interviews and learning logs.

An Overall Increase of Learner Autonomy

Considering the overall effects, the data from all three sources tend to suggest that the project-based English instruction can enhance the participants' learner autonomy.

As shown in Table 4.1, the overall mean scores of the questionnaire responses obtained before and after the instruction were changed from “low” level ($M = 2.34$, $SD = 0.65$) to “high” level ($M = 3.81$, $SD = 0.59$). The paired-sample t-test showed that the difference in the two mean scores was significantly different ($t=13.09$, $p = .000$). When analyzing the scores in the four dimensions of learner autonomy separately, the same trends is observed. There is an increase in the scores from “low” level to “high” level in all dimensions of learner autonomy, though varying in degrees.

Regarding technical dimension, the post-questionnaire mean score was higher than the pre-questionnaire mean score. Before the treatment, most learners’ learner autonomy in the technical dimension was considered as a low level ($M = 2.15$, $SD = 0.69$). After the treatment, the learners’ learner autonomy in the technical dimension increased with statistical significance, rated as a high level ($M = 3.66$, $SD = 0.60$, $t = 11.88$, $p < .05$). This means that the students had great development of learner autonomy in the technical dimension.

Considering psychological dimension, the post-questionnaire mean score was higher than the pre-questionnaire mean score. Before the treatment, most learners’ learner autonomy in the psychological dimension was considered as a low level ($M = 2.30$, $SD = 0.72$). After the treatment, the learners’ learner autonomy in the psychological dimension increased with statistical significance, rated as a high level ($M = 3.75$, $SD = 0.70$, $t = 10.08$, $p < .05$). This could be assumed that the students obtained the positive enhancement of learner autonomy in the psychological dimension.

As regards political-philosophical dimension, the post-questionnaire mean score was higher than the pre-questionnaire mean score. Before the treatment, most

learners' learner autonomy in the political-philosophical dimension was considered as a low level ($M = 2.52$, $SD = 0.74$). After the treatment, the learners' learner autonomy in the political-philosophical dimension increased with statistical significance, rated as a high level ($M = 3.73$, $SD = 0.65$, $t = 10.46$, $p < .05$). This suggests the results that the students had improvement of learner autonomy in the political-philosophical dimension.

Concerning socio-cultural dimension, the post-questionnaire mean score was higher than the pre-questionnaire mean score. Before the treatment, most learners' learner autonomy in the socio-cultural dimension was considered as a low level ($M = 2.53$, $SD = 0.73$). After the treatment, the learners' learner autonomy in the socio-cultural dimension increased with statistical significance, rated as a very high level ($M = 4.45$, $SD = 0.54$, $t = 15.86$, $p < .05$). This could be summarized that the students had the great enhancement of learner autonomy in the socio-cultural dimension.

Table 1 The Paired-sample t-test of the learner autonomy questionnaire (n=39)

Dimensions of Learner Autonomy	Before instruction			After instruction			MD	t	p
	M	SD	Level	M	SD	Level			
	1. Technical autonomy	2.15	0.69	Low	3.66	0.60			
2. Psychologi cal autonomy	2.30	0.72	Low	3.75	0.70	High	1.45	10.08	.000*

Dimensions of Learner Autonomy	Before instruction			After instruction			MD	t	p
	M	SD	Level	M	SD	Level			
3. Political- philosophical autonomy	2.52	0.74	Low	3.73	0.65	High	1.21	10.46	.000*
4. Socio- cultural autonomy	2.53	0.73	Low	4.45	0.54	Very high	1.92	15.86	.000*
Overall	2.34	0.65	Low	3.81	0.59	High	1.47	13.09	.000*

* $p < .05$

Socio-cultural dimension received the highest score. Before the treatment, most learners' learner autonomy in the socio-cultural dimension was considered as a low level ($M = 2.53$, $SD = 0.73$). After the treatment, the learners' learner autonomy in the socio-cultural dimension increased with statistical significance, rated as a very high level ($M = 4.45$, $SD = 0.54$, $t = 15.86$, $p < .05$). This could be summarized that the students had the great enhancement of learner autonomy in the socio-cultural dimension.

The reflections on the learning logs and interviews also reveal the same trend. After the treatment, the two themes emerging to show the improvement of learner autonomy consisting of using various learning strategies to learn English and motivation to learn English. In the first theme "using various learning strategies to learn English", the data from the learning logs and interviews appeared to manifest the

great development of learner autonomy in using strategies to learn English. At the beginning of the treatment, most of the students did not know how to use learning strategies to learn English. After attending the treatment, the students knew how to use learning strategies and often used the learning strategies by themselves to learn English. The students frequently set goals for their English learning and make plans to learn English. In addition, the second theme “motivation to learn English” revealed that the students had more motivation to learn English after receiving the treatment, as can be seen from the following excerpts:

Excerpt 1

Pat log 4: หนูตั้งเป้าหมายไว้ว่าจะดูวิดีโอ 2-3 ครั้งแล้วจำแล้วมาทำใบงาน

(Learning Log 3 Moderate, Line 13)

Pat log 4: I set a goal to watch the video 2-3 times and then memorize it. Then make a worksheet.

(Learning Log 3 Moderate, Line 13)

Excerpt 2

Rach log 9: ทบทวนคำศัพท์ ดูวิดีโอที่เคยเรียนมา ฝึกฟัง พูด อ่าน เขียนอังกฤษด้วย

(Learning Log 6 High, Line 29)

Rach log 9: Review vocabulary, watch the videos I have learned, practice listening,

speaking, reading and writing English.

(Learning Log 6 High, Line 29)

Excerpt 3

Researcher:

นอกจากปรึกษาเพื่อนหรือครูเพื่อแก้ปัญหาและช่วยในการเรียนรู้ภาษาอังกฤษแล้ว
นักเรียนมีวิธีการใดบ้างที่ช่วยให้นักเรียนสามารถเรียนรู้ภาษาอังกฤษด้วยตนเอง
นอกห้องเรียนในระหว่างที่ทำงานในโครงการในครั้งนี้อีกไหมคะ

Sitthi: ที่จริงเมื่อก่อนเวลาผมเรียนภาษาอังกฤษผมก็จะลอกเพื่อนอย่างเดียวเลยครับ

เพราะผมคิดว่ามันยากครับอ่านยังไงก็ไม่เข้าใจเลย

แต่พอทำงานกลุ่มมันก็มีเพื่อนคอยช่วยและคอยมาแชร์ให้ฟังเกี่ยวกับการเรียนของ
เขา เขาบอกว่าเขาได้วางแผนและตั้งเป้าหมายในการเรียนภาษาอังกฤษให้กับตัวเอง
เขาเลยเรียนภาษาอังกฤษได้ดี

ผมก็อ้อเลยครับการตั้งเป้าหมายและวางแผนการเรียนมันดี

ขนาดนั้นเขิวผมก็เลยลองสักยกครับลองวางแผนและตั้งเป้าหมายในการเรียนภาษา
อังกฤษให้กับตัวเองบ้างครับ

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

(Interview 2 Low, Line 20-24)

Researcher: *What methods did you use to learn English by yourself outside the
classroom while working on this project apart from asking your
friends and the teacher to solve the problems about learn
English?*

Sitthi: *In fact, in the past, when I studied English, I would only copy my friend
because I think it's difficult to read and I still didn't understand. But*

when working in my group, there was a friend to help and share about his learning. He said he had planned and set goals for learning English for himself. Therefore, he learned English well. I got it. Setting goals and planning my learning is very good. Then, I tried it. Try to plan and set goals for learning English for me.

(Interview 2 Low, Line 20-24)

Apart from the first theme, the second theme from the learning logs and interviews appeared to manifest that the students had more motivation to learn English after attending the instruction, as can be seen from the following excerpts:

Excerpt 4

Wor log 2: พยายามตั้งใจทำงานให้เสร็จถึงจะยากหรือไม่ค่อยเข้าใจ

(Learning Log 1 Low, Line 10)

Wor log 2: Try to focus on completing tasks, even if they are difficult or incomprehensible.

(Learning Log 1 Low, Line 10)

Excerpt 5

Kun log 7: โปรเจกต์มันเริ่มท้าทายในการทำงาน หนูต้องทำความเข้าใจให้มากขึ้นกว่าเพื่อจะได้มีแรงในการทำงานให้เสร็จ

(Learning Log 4 Moderate, Line 28)

Kun log 7: The project started challenging to work on. I needed to understand more in

order to have the strength to complete the work.

(Learning Log 4 Moderate, Line 28)

Excerpt 6

Thida log 1: อยากจะทำโปรเจกต์นี้ให้เสร็จ ตามเป้าหมายที่ตั้งไว้

(Learning Log 5 High, Line 6)

Thida log 1: I wanted to finish this project according to the set goals.

(Learning Log 5 High, Line 6)

Excerpt 7

Researcher:

เวลาที่หนูมีความวิตกกังวลหนูทำยังไงหรือมีวิธีการยังไงบ้างคะเพื่อลดความวิตกกังวล

ในการเรียนภาษาอังกฤษด้วยตนเองนอกห้องเรียนในระหว่างที่ทำงานในโครงการในครั้งนี้คะ

Wor: ...เมื่อก่อนผมก็ปล่อยไปเลยครับไม่เข้าใจเลยแต่พอ

ทำงานร่วมกันกับเพื่อนในการเรียนภาษาอังกฤษและโครงการนี้มันทั้งสนุกและทำ
ทายดีครับ เลยทำให้อยากเรียนภาษาอังกฤษเลยครับ

(Interview 1 Low, Line 62-64)

Researcher: *How did you do to reduce anxiety when you had anxiety during learning English by yourself outside the classroom while working on this project?*

Wor: *...In the past, I just let it go and not even close. However, working together with my friends to learn English and the fun and challenging project made me want to learn English.*

(Interview 4 Moderate, Line 36-38)

The Development of Learner Autonomy in Different Dimensions

The following sections present the development of each dimension of learner autonomy after the treatment ranging from the highest to the lowest improvement.

Socio-cultural Dimension

The following section presents socio-cultural dimension. The socio-cultural dimension refers to the ability to learn from others through social interaction among peers and teachers and take responsibility for one's learning in various learning cultures.

Table 2 Paired-sample t-test results of socio-cultural Dimension (n=39)

Items	Statements	Before instruction			After instruction			MD	t	p
		M	SD	Level	M	SD	Level			
44	I sometimes want to ask other students for advice about my English learning.	2.69	1.15	moderate	4.72	0.72	very high	2.03	10.92	.000*
45	I want to know how other students are learning English.	2.41	0.94	low	4.67	0.66	very high	2.26	12.35	.000*
46	I sometimes adopt what other students are doing into my own learning.	2.49	1.00	low	4.64	0.71	very high	2.15	12.94	.000*
47	Students can help each other learn English.	2.64	0.93	moderate	4.72	0.60	very high	2.08	13.56	.000*
48	I find it useful to study English with other students.	2.46	0.94	low	4.74	0.59	very high	2.28	14.66	.000*

Items	Statements	Before instruction			After instruction			MD	t	p
		M	SD	Level	M	SD	Level			
49	Western students tend to speak out actively during class.	2.51	0.82	low	3.69	0.86	high	1.18	6.71	.000*
50	Thai students have the ability to learn autonomously.	2.51	0.88	low	4.00	1.03	high	1.49	7.67	.000*

* $p < .05$

According to Table 3, the learners improved all items significantly under the socio-cultural dimension after receiving the project-based English instruction. After the treatment, the learners rated Item 48 “I find it useful to study English with other students.” as the highest mean score ($M = 4.74$, $SD = 0.59$, $t = 1$, $p < .05$), while Item 49 “Western students tend to speak out actively during class.” as the lowest mean score ($M = 3.69$, $SD = 0.86$, $t = 6.71$, $p < .05$).

Compared with other items, the Items 44 “I sometimes want to ask other students for advice about my English learning.” and Item 47 “Students can help each other learn English.” should be highlighted since they started from moderate not low as the others to very high level. In addition, Items 49 “Western students tend to speak out actively during class.” and Item 50 “Thai students have the ability to learn autonomously.” were increased from a low level to a high level, not very high as the other items.

The data from the learning logs and interviews also reveal the same trend. After the treatment, the students often used the learning strategies to help them learn English. The students frequently employed ask for help from peers and teacher to share means

to learn English and explain the difficult parts of work. Compared with before attending the treatment, the students did not know how to manage their own English learning, as can be seen from the following excerpts:

Excerpt 8

Kunya log 1: ขอดูงานที่เพื่อนทำ ลอกข้อที่ทำไม่ได้ และพยายามทำข้อที่พอทำได้

(Learning Log 4 Moderate, Line 4)

Kunya log 1: Ask to see my friends' work. Copy what I could not do and try to do what I could do.

(Learning Log 4 Moderate, Line 4)

Excerpt 9

Kunya log 3: ถามเพื่อนหรือครูถ้าไม่เข้าใจส่วนไหนในใบงานหรือส่วนที่ต้องทำงานกลุ่มส่งในโปรเจก ว่าต้องทำอะไรและทำอะไรบ้าง แล้วค่อยมาทำใบงานและงานที่ได้รับมอบหมายของตัวเอง

(Learning Log 4 Moderate, Line 10-11)

Kunya log 3: Ask a friend or teacher if I did not understand any parts of the worksheet or parts that I needed to do in the part of the group work on a project about what to look for and how to do. Then try to do my own worksheets and assignments.

(Learning Log 4 Moderate, Line 10-11)

Excerpt 10

Kunya log 6: เราสอบถามครูในเวลาหลังเลิกเรียนตอนที่เราไม่เข้าใจเพื่อที่จะได้ทำใบงานได้ ไม่ก็ไปนั่งทำกับเพื่อนสัก2-3คน เพื่อที่จะช่วยกันคิด

(Learning Log 4 Moderate, Line 21-22)

Kunya log 6: I asked the teacher after school when I did not understand any parts to be able to complete the tasks. Otherwise, I worked together with my 2-3 peers and to help each other to complete the tasks.

(Learning Log 4 Moderate, Line 21-22)

Excerpt 11

Kunya log 8: เรามีการถามคุณครูและก็เพื่อน เราอาจจะไปบรรยายเพื่อนเพื่อปลดปล่อยเวลาที่รู้สึกว่าคุณศัพท์ยากจัง ประโยคที่ต้องจำก็ยาก เอ้อ และหลังจากนั้นมันก็ทำให้มีกำลังใจในการทำงานนี้ต่อ

(Learning Log 4 Moderate, Line 30-31)

Kunya log 8: I asked the teacher and peers. I might talk with my peers to release the stress when I felt that the vocabulary was difficult and sentences to memorize were difficult. After that, it motivated me to continue this work.

(Learning Log 4 Moderate, Line 30-31)

Excerpt 12

Wor: ที่จริงเมื่อก่อนเวลาผมเรียนภาษาอังกฤษ ผม ผม ผมคิดว่ามันยากครับ ยากไปหมดครับจนไม่อยากเรียนเลย แต่ตอนที่ผมทำโครงการนี้ครับ ถึงผมจะไม่ค่อยรู้เรื่องแต่ผมก็พยายามถามคนที่เขาเก่งครับ ว่าเขาทำยังไงถึงเรียนได้ ดีมากๆ ครับ

(Interview 1 Low, Line 29-31)

Wor: Actually, when I learned English in the past, I, I, I thought it was difficult. It was so hard that I did not want to study at all. When I did this project, although I did not know much about it, I tried to ask my peers who were good at English about how he learned English. It was great.

(Interview 1 Low, Line 29-31)

Excerpt 13

Pat: ในช่วงแรกๆ ก็ไม่ค่อยรู้เรื่องค่ะ เลยไม่รู้ว่าจะต้องทำอะไรค่ะ หนูก็อาศัยถามเพื่อน ถามครูเอาค่ะ ว่าต้องทำอะไร เรียนยังไง จะได้สามารถทำงานได้และรอดมาได้ค่ะ 555 แต่พอหลังๆ มา ก็พอรู้ทางและเรียนภาษาอังกฤษด้วยตัวเองได้ค่ะ ต้องขอบคุณเพื่อนค่ะ

(Interview 3 Moderate, Line 13-15)

Pat: In the beginning, I did not know much about it. So, I did not know what to do. I relied on asking my peers and asking my teacher what to do, how to study, so that I could complete the tasks and survive, Haha. I needed to thank my friends for helping me.

(Interview 3 Moderate, Line 13-15)

Excerpt 14

Pat: ตอนแรกๆ ผมก็คอยศึกษาและเรียนคำศัพท์ภาษาอังกฤษในวิดีโอที่ครูส่งมา มันก็มีแบบฝึกหัด มันก็ค่อนข้างยากนะ ผมก็ลองทำมัน ลองทดสอบว่าผมจำได้ไหม ผมเข้าใจอะไรบ้าง หลังๆ มาผมเห็นว่าเพื่อนๆ ทำข้อยากๆ ในใบงานได้ ผมก็พยายามเรียนภาษาอังกฤษกับเพื่อนและทำงานด้วยกันกับเพื่อน แต่ในบางครั้งผมก็ถามครูเหมือนกันครับ ว่าต้องทำอะไรถึงจะเข้าใจสิ่งนี้

(Interview 6 High, Line 15-18)

Pat: At first, I kept studying and learning English words in the videos provided by the teacher. It also had exercises. It was a bit difficult. I tried to do it. Try to test whether I remembered or not and what I understood. Lately, I saw that my peers could do the difficult parts in the English worksheet. I tried to learn English with my peers and work together with them. But I sometimes also asked the teacher what I had to do to understand this.

(Interview 6 High, Line 15-18)

In conclusion, the findings indicated that the learners improved the learner autonomy in the socio-cultural autonomy dimension. The ability to learn English with other students was rated at a very high level. The findings from the learning logs and interviews were congruent with the findings from the questionnaire in that before participating in the project-based English instruction, the learners found learning English so difficult that they did not want to study. However, once the learners attended the instruction for a few weeks, the learners gradually improved the ways to learn English. The learners often asked peers and teacher to explain the difficult parts and then working together to complete the tasks. The asking peers and teacher for advice in learning English was the learning strategies they frequently used during the project.

Psychological Dimension

The following section presents psychological autonomy. The psychological autonomy refers to the ability to motivate themselves to learn English and use strategies to reduce anxiety when learning English.

Table 3 The Paired-sample t-test results of psychological dimension (n=39)

Items	Statements	Before instruction			After instruction			MD	t	p
		M	SD	Level	M	SD	Level			
16	All students ought to set their own goals in learning English.	2.13	0.92	low	4.08	0.84	high	1.95	10.22	.000*
17	Every student ought to set long-term goals in learning English.	2.13	0.83	low	3.62	0.75	high	1.49	9.86	.000*
18	All students ought to make long-term plans for studying English.	2.18	0.94	low	3.56	0.82	high	1.38	7.76	.000*

Items	Statements	Before instruction			After instruction			MD	t	p
		M	SD	Level	M	SD	Level			
19	Every student ought to set goals for the day before he/she starts studying English.	2.15	0.87	low	3.38	0.99	moderate	1.23	5.79	.000*
20	All students ought to choose the materials suitable for their goals in learning English.	2.33	0.90	low	3.59	0.82	high	1.26	6.74	.000*
21	Every student ought to make study plans that match his/her goals in learning English.	2.33	0.81	low	3.62	0.78	high	1.28	7.29	.000*
22	Every student ought to reflect upon how he/she studied after he/she finishes studying English for the day.	2.26	0.94	low	3.69	0.61	high	1.44	8.79	.000*
23	All students ought to reflect upon what they learned after they finish studying English for the day.	2.15	0.87	low	3.38	0.88	moderate	1.23	7.23	.000*
24	Every student ought to evaluate the improvement in his/her ability to use English effectively.	2.51	1.02	low	3.51	0.94	high	1.00	6.09	.000*
25	I know what I need to study to improve my English.	2.15	0.93	low	3.74	0.88	high	1.59	9.51	.000*
26	I know what I am good at in learning English. (e.g., "I am good at memorizing vocabulary.")	2.36	0.78	low	3.67	1.08	high	1.31	6.71	.000*
27	If I don't feel like studying English, I know the reason.	2.36	0.90	low	3.77	1.11	high	1.41	7.04	.000*
28	If I don't feel like studying English, I know how I can motivate myself.	2.28	1.00	low	4.38	0.88	very high	2.10	11.06	.000*
29	I like the English language.	2.49	1.10	low	3.85	0.99	high	1.36	6.59	.000*
30	I like studying English.	2.41	0.99	low	3.92	1.01	high	1.51	6.97	.000*
31	The reason that I study English is to pass the exams for English classes.	2.56	1.17	low	4.26	0.85	very high	1.69	8.84	.000*

* $p < .05$

According to Table 3, the learners improved all items significantly under the psychological autonomy dimension after receiving the project-based English

instruction. After the treatment, the learners rated Item 28 “If I don’t feel like studying English, I know how I can motivate myself.” as the highest mean score ($M = 4.38$, $SD = 0.88$, $t = 11.06$, $p < .05$), while Item 19 “Every student ought to set goals for the day before he/she starts.” as the lowest mean score ($M = 3.38$, $SD = 0.99$, $t = 5.79$, $p < .05$).

Compared with other items, all the items were rated low at the beginning. Most of them were increased to high, but Items 19 “Every student ought to set goals for the day before he/she starts studying English.” and Item 23 “All students ought to reflect upon what they learned after they finish studying English for the day.” Were rated to moderate, while the Item 31 “The reason that I study English is to pass the exams for English classes.” started from low to very high.

The data from the learning logs and interviews also show the same trend. During the treatment, the analyzed data showed that the students often motivated themselves to learn English. At the beginning, the students had high anxiety about learning English in the project. After attending the challenging project for a few weeks, the students were more motivated to learn English by themselves independently. Additionally, the students often sharing feelings as a learning strategy to maintain motivation to learn English during the project, as can be seen from the following excerpts:

Excerpt 15

Wor log 3: ผมจะท่องไว้ว่า ภาษาอังกฤษที่ต้องเรียนในโครงการน่าจะช่วยให้เราเก่งอังกฤษและสามารถสอบผ่านอังกฤษได้

(Learning Log 1 Low, Line 13-14)

Wor log 3: I would recite that English that must be studied in the project might help me to be good at English and pass English exams.

(Learning Log 1 Low, Line 13-14)

Excerpt 16

Wor log 4: ผมอยากจจะรู้จักกับคำศัพท์ใหม่ๆหรือประโยคใหม่ๆที่ไม่เคยเรียน

(Learning Log 1 Low, Line 17)

Wor log 4: I would like to know new words or new phrases that I have never learned.

(Learning Log 1 Low, Line 17)

Excerpt 17

Wor log 8: ผมจะคอยบอกตัวเองว่า ถ้าผมไม่เรียนภาษาอังกฤษหรือฝึกทักษะภาษาอังกฤษผมจะทำงานทั้งของตัวเองและกลุ่มไม่เสร็จ

(Learning Log 1 Low, Line 29-30)

Wor log 8: I kept telling myself that If I did not study English or practice my English skills, I would not finish both my work and the group work.

(Learning Log 1 Low, Line 29-30)

Excerpt 18

Wor log 10: มีบางชิ้นงานที่ยากหรือไปงานที่ไม่ค่อยเข้าใจจนบางทีก็ไม่อยากทำหรือเรียนภาษาอังกฤษต่อ แต่ก็ยังมีเพื่อนคอยซัพพอร์ต คอยให้กำลังใจในการเรียนภาษาอังกฤษตลอด

(Learning Log 1 Low, Line 37-38)

Wor log 10: There were some difficult tasks or worksheets that were not easy to understand and sometimes I did not want to do or continue learning English. But it was still good to have peers to support and always encourage me to study English.

(Learning Log 1 Low, Line 37-38)

Excerpt 19

Thida: ในช่วงแรกๆ มันก็เลยแบบกังวลมากค่ะ แต่พอหลังๆ มาก พอหนูเริ่มชิน เริ่มปรับตัวได้ ได้ทำงานร่วมกับเพื่อนๆ ในกลุ่ม ความกังวลก็ลดลงค่ะ หนูเริ่มที่จะรู้วิธีในการเรียนภาษาอังกฤษที่ได้เรียนรู้มาจากคนเก่งๆ และรู้วิธีในการสร้างแรงฮีบในการเรียนภาษาอังกฤษ หากรู้สึกท้อหรือไม่อยากเรียนภาษาอังกฤษหนูก็จะใช้วิธีที่หนูได้เรียนรู้มากจากเพื่อนๆ ไปเลยล่ะ ดีมากเลยล่ะ เช่น ทำสมองให้ปลอดโปร่งก่อน ดูหนัง ฟังเพลงที่ชอบ พอหนูเริ่มดีขึ้น หนูค่อยกลับมาเรียนใหม่ล่ะ

(Interview 5 High, Line 46-51)

Kunya: In the beginning, I was very worried. But after a while, when I started to get used to it and work with peers in groups, the anxiety was reduced. I started to learn how to learn English that I learned from the people who were good at English and know how to build a strong sense in learning English. If I felt discouraged or didn't want to learn English, I would adopt the methods that I have learned a lot from peers. It was very good. For example, clear my brain by watching movies and listening to your favorite music. When I started to get better, I slowly came back to learn English again.

(Interview 5 High, Line 46-51)

Excerpt 20

Kunya: หนูก็จะโทรไปหาเพื่อนค่ะและระบายให้เพื่อนฟังว่ารู้สึกยังไงเวลาหนูวิตกกังวลหรือไม่อยากเรียนภาษาอังกฤษ พอได้พูดระบายให้เพื่อนฟังหนูก็รู้สึกสบายใจขึ้นนะคะ และหลังจากนั้นหนูก็ลองถามเพื่อนว่าตอนที่เขารู้สึกเหมือนหนูเขาไปทำอะไรบ้าง บางครั้งหนูก็เอาวิธีที่เขาใช้มาทำบ้างค่ะทำแล้วดีขึ้นนะคะสบาย

ใจขึ้นและอยากกลับมาสู้ใหม่ เช่น ไปดูวิดีโอของคนที่มีอายุประมาณเดียวกันและสามารถฟังพูดภาษาอังกฤษ
เก่งๆ

(Interview 4 Moderate, Line 49-52)

Kunya: *I would call my friends and tell them how I felt when I did not feel like to study English. After speaking to my friends, I felt more comfortable.*

And after that, I asked my friend what she did when she felt like me.

Sometimes, I adopt the methods that she used. After adopting, I felt more comfortable and wanted to learn English again. For example, watch the videos of people who had the same age and can listen to English and speak English well.

(Interview 4 Moderate, Line 49-52)

In short, the findings indicated that the learners improved the learner autonomy in the psychological autonomy dimension. The ability to motivate the learners to learn English when they did not feel like learning English during the project-based English instruction at a very high level. The findings from the learning logs and interviews were consistent with the findings from the questionnaire in that at the beginning of the project-based English instruction, the learners had high anxiety to learn English and did not know how to motivate them to learn English. However, once the learners attended the instruction for a few weeks, the learners gradually improved the ways to learn English when they did not feel like studying English. The learners started to use the various strategies to motivate themselves to learn English. For instance, the learners talked to their peers to express how they felt and asked for the ways to tackle with the

feeling from peers. The learners revealed that they listened to their favorite songs and watch the movies they liked to relax themselves first when they faced the difficulties in learning English. Then, the learners continued learning English after they felt more comfortable. In addition, they watched the videos of people who had the same age and could listen to English and speak English well to motivate them to learn English.

Political-philosophical Dimension

The following section presents political-philosophical autonomy. The political-philosophical autonomy refers to the ability to make decisions about their own learning and negotiate with the teacher about the learning activities.

Table 4 The Paired-sample t-test results of political-philosophical dimension (n=39)

Items	Statements	Before instruction			After instruction			MD	t	p
		M	SD	Level	M	SD	Level			
32	We should fulfill the expectations of our society.	2.23	0.74	low	3.56	0.97	high	1.33	8.25	.000*
33	I am aware of the goals of the English classes I am taking.	2.36	0.93	low	3.72	0.83	high	1.36	7.63	.000*
34	Students should have the right to freely tell the teacher what they want to learn.	2.64	0.90	moderate	3.56	0.91	high	0.92	6.21	.000*
35	Students should have the right to freely make decisions about their own learning.	2.54	0.91	low	4.23	0.87	very high	1.69	9.57	.000*
36	Students should have the right to freely decide the materials for studying.	2.62	0.94	moderate	3.72	0.92	high	1.10	7.32	.000*
37	Students should have the right to freely decide their own goals in learning English.	2.67	0.87	moderate	3.67	0.98	high	1.00	5.80	.000*
38	I am able to decide the materials for studying English if given the freedom to do so.	2.36	0.84	low	3.49	0.82	high	1.13	7.41	.000*

Items	Statements	Before instruction			After instruction			MD	t	p
		M	SD	Level	M	SD	Level			
39	I am able to decide my own goals in learning English if given the freedom to do so.	2.46	0.79	low	3.49	0.68	high	1.03	7.60	.000*
40	The teacher and students should negotiate on the goals in learning English.	2.59	1.09	low	3.49	0.88	high	0.90	5.79	.000*
41	The teacher and students should negotiate on the plans for studying English.	2.67	0.98	moderate	4.49	0.79	very high	1.82	9.74	.000*
42	The teacher and students should negotiate on the materials for studying English.	2.54	1.07	low	3.69	0.83	high	1.15	7.97	.000*
43	The teacher and students should negotiate on the topics covered in the class.	2.59	0.75	low	3.62	0.71	high	1.03	9.06	.000*

* $p < .05$

According to Table 3, the learners improved all items significantly under the political-philosophical autonomy dimension after receiving the project-based English instruction. After the treatment, the learners rated Item 41 “The teacher and students should negotiate on the plans for studying English.” as the highest mean score ($M = 4.49$, $SD = 0.79$, $t = 9.74$, $p < .05$), while Item 38 “I am able to decide the materials for studying English if given the freedom to do so.” as the lowest mean score ($M = 3.49$, $SD = 0.82$, $t = 7.41$, $p < .05$).

Compared with other items, four Items 34 “Students should have the right to freely tell the teacher what they want to learn.”, 36 “Students should have the right to freely decide the materials for studying.”, 37 “Students should have the right to freely decide their own goals in learning English.”, and 41 “The teacher and students should

negotiate on the plans for studying English.” started from moderate. One of them (Item 41) was increased to very high while the others to high.

The data from the learning logs and interviews also show the same trend. During the treatment, the analyzed data showed that the students often used negotiation with peers and the teacher as a learning strategy to manage their own plans on English learning while before attending the treatment the students rarely negotiated with peers and the teacher about their English learning plan, as can be seen from the following excerpts:

In conclusion, it could be assumed that the political-philosophical autonomy dimension, the ability to make decisions about their own learning and negotiate with the teacher about the learning activities, improved after receiving the project-based English instruction. Considering the obtained mean score, all items under the political-philosophical autonomy dimension significantly increased after the treatment. The findings from the post-questionnaire showed that Item 41 “The teacher and students should negotiate on the plans for studying English.” had the highest mean score, while Item 38 “I am able to decide the materials for studying English if given the freedom to do so.” had the lowest mean score.

Excerpt 21

Sitthi log 7: มีส่วนร่วมในการเลือกในส่วนต่างๆ ของงานกลุ่ม และต่อเรื่องเรื่องฝึกซ้อมภาษาอังกฤษเพื่อนำเสนอในห้องกับเพื่อนๆ ในกลุ่มได้

(Learning Log 2 Low, Line 25-26)

Sitthi log 7: Participate in the selection of different parts of the group work and negotiate English practice sessions to present in the classroom with peers in the group.

(Learning Log 2 Low, Line 25-26)

Excerpt 22

Sitthi log 11: มีโอกาสต่อรองกับเพื่อนในกลุ่มและครูเรื่องรูปแบบการนำเสนอโปสเตอร์

(Learning Log 2 Low, Line 39)

Sitthi log 11: Have opportunity to negotiate with peers in groups and the teacher on the format of the poster presentation.

(Learning Log 2 Low, Line 39)

Excerpt 23

Sitthi: ผม ก็ต่อรองก็ครูเกี่ยวกับเรื่องเรียนภาษาอังกฤษในระหว่างโครงการนะครับ ถ้าเทียบกับก่อนที่จะเข้าร่วมโครงการผมมีโอกาสต่อรองกับครูมากกว่าครับ ในโครงการผมก็ต่อรองเรื่อง หัวข้อที่ผมอยากเรียน ซึ่งผมบอกเหตุผลไปว่าที่ผมอยากเรียนเรื่องเกี่ยวกับโรงเรียนเพราะ ผมคิดว่ามันใกล้ตัวผมครับและอาจทำให้ผมเข้าใจภาษาอังกฤษง่ายขึ้นครับ ผมได้ต่อรองกับครูเรื่องเวลาส่งงานแล้วผมก็ยังได้ต่อรองกับเพื่อนๆ ในกลุ่มผมด้วยครับในเรื่องของการแบ่งงาน การค้นหาข้อมูล และเรื่องการเลื่อนการส่งงาน

(Interview 2 Low, Line 52-56)

Sitthi: I negotiated with the teacher about learning English during the project.

Compared to before joining the project, I had more opportunities to negotiate with teacher. In the project, I negotiated the topic I wanted to study which I told the reason that I wanted to learn about a school because I thought it was close to me and might help me understand English easier. I negotiated with the teacher about the time for submitting assignments. I also negotiated with my peers in terms of work division for each group member, how to search for information, and the postponement of the assignments.

(Interview 2 Low, Line 52-56)

In conclusion, the findings indicated that the learners improved the learner autonomy in the political-philosophical autonomy dimension. The ability to negotiate on the plans for studying English with peers and the teacher revealed the improvement at a very high level. The findings from the learning logs and interviews were in line with the findings from the questionnaire in that the learners rarely negotiated with the peers and the teacher on their English learning plans before attending the project-based English instruction. Once the learners participated in the instruction for a few weeks, the learners gradually improved the ability to negotiate on the plans for studying English with peers and the teacher in various aspects.

Technical autonomy

The following section presents technical autonomy. The technical autonomy refers to the ability to use cognitive and metacognitive strategies to manage their own learning independently.

Table 5 The Paired-sample *t*-test results of technical dimension (n=39)

Items	Statements	Before instruction			After instruction			MD	t	p
		M	SD	Level	M	SD	Level			
1	I set long-term goals in learning English.	2.49	0.94	low	4.62	0.67	very high	2.13	12.30	.000*
2	I set goals for the day before I start studying English.	2.10	0.97	low	3.74	0.88	high	1.64	8.85	.000*
3	I make long-term plans for studying English.	2.33	0.81	low	3.72	0.83	high	1.38	8.51	.000*
4	I make study plans for the day before I start studying English.	2.21	0.83	low	3.56	0.97	high	1.36	8.38	.000*
5	I revise my English study plans if they don't work well.	2.36	1.09	low	3.64	0.78	high	1.28	7.62	.000*

Items	Statements	Before			After			MD	t	p
		instruction			instruction					
		M	SD	Level	M	SD	Level			
6	I try to create opportunities to use English outside the classroom.	2.13	0.95	low	3.82	1.02	high	1.69	7.77	.000*
7	I reflect upon how I studied after I finish studying English for the day.	1.85	0.87	low	3.18	0.82	moderate	1.33	7.36	.000*
8	I reflect upon what I learned after I finish studying English for the day.	2.05	0.94	low	3.28	0.72	moderate	1.23	7.59	.000*
9	I evaluate the improvement in my ability to use English effectively.	2.13	0.73	low	3.46	0.76	high	1.33	8.98	.000*
10	I assess how much of my goal I have achieved.	2.21	0.77	low	3.54	0.72	high	1.33	8.98	.000*
11	I assess the effectiveness of my English study plans.	2.15	0.96	low	3.38	0.81	moderate	1.23	7.59	.000*
12	I keep records of what kind of methods I used for my English study.	2.15	0.93	low	4.08	0.84	high	1.92	9.83	.000*
13	I keep records of what I learned from my English study.	2.08	0.98	low	4.10	0.94	high	2.03	9.83	.000*
14	I take notes of my feelings while I am studying English.	1.97	0.99	low	3.26	0.88	moderate	1.28	8.24	.000*
15	I will need to continue studying English after graduation.	2.10	0.82	low	3.54	1.05	high	1.44	8.79	.000*

* $p < .05$

According to Table 3, the learners improved all items significantly under the technical autonomy dimension after receiving the project-based English instruction. After the treatment, the learners rated Item 1 “I set long-term goals in learning English.” as the highest mean score ($M = 4.62$, $SD = 0.67$, $t = 12.30$, $p < .05$), while Item 7 “I reflect upon how I studied after I finish studying English for the day.” as the lowest mean score ($M = 3.18$, $SD = 0.82$, $t = 7.36$, $p < .05$).

Compared with other items, all the items were rated low at the beginning. The items were changed in three degrees, to moderate, to high, and to very high. The Item 1 “I set long-term goals in learning English.” received the highest.

The data from the learning logs and interviews also show the same trend. During the treatment, the analyzed data revealed that at the beginning of the project, the student did not know how to study English. After attending the project, the students often set their own goals to learn English by themselves. For instance, they set the week goals to learn new vocabulary via the videos provided by the teacher with various learning strategies. They started listening to the vocabulary, taking notes, and looking up the meaning. Additionally, they could manage time to learn English, as can be seen from the following excerpts:

Excerpt 24

Thida log 1: ดูวิดีโอที่คุณครูส่งให้ และทำความเข้าใจเกี่ยวกับวิดีโอ และทำงานภาษาอังกฤษ

(Learning Log 5 High, Line 1)

Thida log 1: Watch a video sent by the teacher and try to understand the video and do the English worksheets.

(Learning Log 5 High, Line 1)

Excerpt 25

Thida log 5: ฉันได้ตั้งเป้าหมายไว้ว่าสัปดาห์นี้ฉันจะต้องเรียนรู้คำศัพท์ใหม่ๆ ในวิดีโอที่ครูส่งมาให้ โดยที่ฉันจะเริ่มจากฟังคำศัพท์ จดลงสมุด หาความหมาย ของคำศัพท์ ตอนเย็นๆ หลังจากกินข้าว

(Learning Log 5 High, Line 21-22)

Thida log 5: I made a goal this week to learn some new words in the video sent by the teacher. I would start by listening to the words, jotting them down in the notebook, finding the meaning of the words in the evening after eating.

(Learning Log 5 High, Line 21-22)

Excerpt 26

Thida log 6: ฉันดูวิดีโอที่คุณครูส่งมาให้ 2-3 ครั้ง ในตอนเย็นและจดคำศัพท์ลงไป ในสมุด และลองทำงาน

(Learning Log 5 High, Line 25)

Thida log 6: I watched the video sent by the teacher 2-3 times in the evening, wrote down the words in my notebook, and tried to work.

(Learning Log 5 High, Line 25)

Excerpt 27

Researcher: นอกจากปรึกษาเพื่อนหรือครูเพื่อแก้ปัญหาและช่วยในการเรียนรู้ภาษาอังกฤษแล้ว นักเรียนมีวิธีการใดบ้างที่ช่วยให้นักเรียนสามารถเรียนรู้ภาษาอังกฤษด้วยตนเองนอกห้องเรียนในระหว่างที่ทำงานในโครงการในครั้งนี้อีกไหมคะ

Sitthi: ที่จริงเมื่อก่อนเวลาผมเรียนภาษาอังกฤษผมก็จะลอกเพื่อนอย่างเดียวเลยครับ เพราะผมคิดว่ามันยากครับ อ่านยังไงก็ไม่เข้าใจเลย แต่พอตอนนี้ผมได้ทำงานกลุ่มมันก็มีเพื่อนคอยช่วยและคอยมาแชร์ให้ฟังเกี่ยวกับการเรียนของเขา เขาบอกว่าเขาได้วางแผนและตั้งเป้าหมายในการเรียนภาษาอังกฤษให้กับตัวเอง เขาเลยเรียนภาษาอังกฤษได้ดี ผมก็อ้อเลยครับ การตั้งเป้าหมายและวางแผนการเรียนมันดีขนาดนั้นเชียว ผมก็เลยลองสักขยครับ ลองวางแผนและตั้งเป้าหมายในการเรียนภาษาอังกฤษให้กับตัวเองบ้างครับ

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

(Interview 2 Low, Line 20-24)

Researcher: *What methods did you use to learn English by yourself outside the classroom while working on this project apart from asking your friends and the teacher to solve the problems about learn English?*

Sitthi: *In fact, in the past, when I studied English, I would only copy my friend because I think it's difficult to read and I still didn't understand. But when I worked with my group, there was a friend to help and share about*

his learning. He said he had planned and set goals for learning English for himself. Therefore, he learned English well. I got it. Setting goals and planning my learning is very good. Then, I tried it. Try to plan and set goals for learning English for me.

(Interview 2 Low, Line 20-24)

To sum up, the findings indicated that the learners improved the learner autonomy in the technical autonomy dimension. The ability to set long-term goals in learning English revealed the improvement at a high level. The findings from the learning logs and interviews were congruent with the findings from the questionnaire that the learners rarely set their own goals for English learning before attending the project-based English instruction. Once the learners participated in the instruction for a few weeks, the learners frequently set their own goals to learn English independently with various learning strategies.

CHAPTER 5

DISCUSSION

This chapter presents a summary of the study and a discussion. In addition, the limitations of the study, pedagogical implications, and suggestions for further research are presented.

Summary of the Study

This study employed a one-group pretest-posttest design to investigate the effects of project-based English instruction on learner autonomy of lower secondary school learners. Thirty-nine participants in a public school in the eastern region of Thailand attended a 14 instruction, designed as an additional course “Learning English through a Project”. Larmer et al. (2015)’s framework was employed to design each of the 90-minute lessons that was conducted once a week. The instruction consists of four phases, namely, (1) launching the project, (2) building knowledge, understanding, and skills, (3) developing, critiquing, and revising products, and (4) presenting products. In the launching of the project phase, the learners were required to choose a topic, work in groups to explore the problems related to the topic, brainstorm the ways to solve the problem, initiate the driving question, and propose the final product. In the phase of the building knowledge, understanding, and skills, the learners learned the necessary knowledge and skills they could apply to create the final product. In the phase of developing, critiquing, and revising products, the learners worked in groups to make a plan and conduct the plan to collect the data, analyze the data, develop the products, revise the products after receiving the feedback, and present the final products to the audience. In the phase of presenting products, the learners presented

their final products to the authentic audience outside the classroom and give reflections on the learning process. The long-range plan and four sample lesson plans were reviewed by three experts in teaching English as a foreign language field. The plans were revised according to the comments and tried out. The rest of the lesson plans followed the same guidance.

The development of learner autonomy of the participants in this study was observed using the Measuring Instrument Language Learner Autonomy adapted from Murase (2015), semi-structured interviews and learning logs. The questionnaire designed by Murase (2015) was translated into Thai. Backtranslation method was employed to ensure the validity. The four dimensions of learner autonomy consisting of technical, psychological, political-philosophical, and socio-cultural autonomy were measured. The semi-structured interview questions and learning logs were designed by the researcher and validated by three experts who have worked in learner autonomy area and revised according to the experts' suggestions accordingly. Necessary revisions were made before piloting and actual data collection.

The quantitative data obtained from the pre and post questionnaires were analyzed by using descriptive statistics and paired-sample t-test. Then, the data from the semi-structured interviews and learning logs were analyzed using coding and triangulated with the questionnaire data.

Summary of the Findings

The project-based English instruction developed in this study was proven effective to enhance learner autonomy of lower secondary school learners. The data from all three sources showed positive trends in the development of learner autonomy.

The overall mean score of the questionnaire responses obtained before and after the instruction were changed from “low” level to “high” level. The paired-sample t-test showed that the difference in the two mean scores was significantly different. These results suggested that the learners’ levels of learner autonomy increased significantly after they attended the project-based English instruction. The qualitative data from the learning logs and interviews also showed the same trend. The data from two sources revealed that the learners often used the various learning strategies to manage their own English learning during the instruction. Additionally, the learners appeared to manifest greater motivation to learn English after attending the instruction.

The increase of learner autonomy was also observed in each dimension of learner autonomy. The mean difference of the scores in the socio-cultural dimension was the highest, followed by that of the technical dimension, psychological dimension, and political-philosophical dimension, respectively. This suggests that the project-based English instruction helped the learners develop their abilities to manage their own English learning. In other words, the learners developed the abilities to learn English better through social interaction the most after attending the instruction. Apart from the most development of the socio-cultural dimension, the rest of the learner autonomy dimension was also increased but in a variety of degrees. Put simply, the learners often set their own English goals, make the plans for their own learning, use a variety of learning strategies to motivate themselves to learn English and reduce anxiety when learning English, dare to negotiate on the English learning plans with the peers and teacher. From the learning logs and interviews, the learners reported that at the beginning, the learners did not know how to learn English by themselves. The learners only copied their peers’ work without asking for explanation or advice about how to do

tasks or how to learn English. After attending the instruction, the learner frequently employed the strategy of asking for advice about how to learn English and how to complete the tasks from peers and teacher. This appeared to manifest that the learners often learned how to learn English from other learners during the instruction.

Discussions

Based on the findings, three key ideas are important to be discussed.

First, the project-based English instruction was found to enhance secondary school students' learner autonomy in English classes. This finding is in line with previous studies (e.g., Nguyen, 2017, Pham, 2021, Yuliani & Lengkanawati, 2017), which suggested that project-based instruction could be employed in English classes to enhance learner autonomy of lower secondary school learners. Considering the activities that the learners did in each phase of the instruction, necessary skills for independent learning, as identified by Benson (2011) such as setting learning goals, making learning plans, monitoring their own learning, evaluating learning performance, motivating themselves to learn English, choosing the learning topics, and learning how to learn English from others must have been developed. Starting from the first phase, the learners had opportunities to choose a theme they were interested in. Then, the learners formed a small group to work together to complete the project. During the group work, the learners had opportunities to set goals and make plans for their own English learning to develop their English skills in order to complete both individual and group work. When working in groups, the learners had opportunities to ask for advice about how to learn English and how to complete tasks. Stein (1995) argued that when working on a project, students gained experiences in solving problems, negotiating with

others, and other interpersonal skills, which are considered as necessary skills for learner autonomy development (Benson, 2011). In the present study, when the learners could not understand the content in the videos sent by the teacher, they explore the solutions to solve the problem. The learners often asked for advice how to understand the content in the reading text about how to create a survey from Google Form from the peers in groups. In addition, the learners negotiated the English learning goals with peers in group when they were asked to practice English to present in the class. To achieve the common goals, the proficient learners in a group shared their learning strategies to the rest of the group members. Additionally, project-based instruction also helps learners develop cognitive and metacognitive such as initiating questions, making a plan, implementing the plan consisting of collecting, analyzing and reporting data orally or in writing (Beckett, 2002). For example, the learners in the present study had opportunities to initiate questions about how to create a survey from Google Form and then try to explore the answers from the learning resources provided or the other learning resources they can access. After completing the survey, each group needed to make a plan to collect, analyze, and report the data. Then, each group conducted their survey following their plan.

Second, the change in learner autonomy was found the highest in the socio-cultural dimension. The data from the learning logs and interviews showed that the learners often asked for advice about how to learn English and how to complete the tasks from the peers and teacher. Pham (2021) also found that the first-year non-English major students in this study developed the ability to interact with others more after attending the project work for 13 weeks. This may be explained as follows. Over the thirteen weeks, the students worked together as a team to achieve a common goal.

According to Ramírez (2014), when the learners did a project, social interaction skills could be enhanced since they have to support each other to accomplish the task at hand. The end product that each group had to make together seemed to promote group responsibility and interdependence, which then required collaboration among group members (Fried-Booth, 2002; Larmer et al., 2015).

Last, the self-rating scores in political-philosophical dimension were changed the least. The learners revealed that they often negotiated on the plans about their own English learning with the peers and teacher and made decisions about their own learning. Nguyen (2017) also found the same trend in his study. His students' self-determination was shown to improve on a slight increase while bigger changes were observed in the other dimensions. Such a result may be contributed to the following reasons. Although the learners had freedom to make decisions about their own learning in the present study, some of them may be reluctant to make decisions about their own learning during the project. The learners may not be familiar with the active role they were given in a project-based lesson. They may need more time to develop learner autonomy in this dimension. Candy (1991) explained that learners need time to change their old habits and old ways of thinking to new habits and new ways of thinking.

The Limitations of the Study

The findings of the present study may be constrained by the following limitations. First, the participants of the present study were conveniently selected, by asking for volunteer learners in the school where the researcher was working, so the entry levels of learner autonomy could not be predetermined. The distribution of the learner autonomy levels in the class could be skewed. Second, the study was conducted

during the time of the COVID-19 pandemic in which schools around the country were conducted in remote learning mode. The project-based instruction was altered to be conducted online, which may have affected the results of the study.

Pedagogical Implications

Several classroom implications drawn from the findings of the present study are as follows:

First, providing the learners the opportunity to make decisions could motivate themselves to learn English and complete the tasks. The findings revealed that choosing a theme the learners were interested in helped them stay motivated to learn English and investigate more information about the theme.

Second, the learners could learn English better through social interaction. In the project, when the learners did not understand English content in the videos or know how to do the worksheets, the learners asked for advice about how to learn English and how to complete the project from the peers in groups and the teacher. After the learners knew how to learn English from the peers and teacher, the learners tried to apply the learning strategies to learn English by themselves.

Recommendations for Further Research

To further our understanding about how to enhance learner autonomy in English classes, especially by using project-based learning approach, the following areas of research should be considered.

Considering the socio-cultural dimension gained the highest improvement, the present study found the strategies the learners often used in the study to foster the socio-

cultural dimension. The present study was conducted in the remote learning. During the remote learning, the learners were encouraged to have more social interaction through online platforms and challenging activities the learners could receive the immediate feedback. However, the onsite class has not been explored the effects of the project-based English instruction on the development of the socio-cultural dimension. Therefore, the further studies should investigate the effects of the project-based English instruction on the socio-cultural dimension of learner autonomy in the onsite classroom.

The present study found that the political-philosophical dimension was enhanced at the least compared with the other dimensions after the instruction. However, the reasons behind the least development of learner autonomy in the project-based English instruction have not been explored. Therefore, the further studies should explore the factors that could impede the development of the political-philosophical dimension during the implementation of project-based English instruction.

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APPENDIX A

List of the Experts

The research instruments of the present study, “Effects of Project-based English instruction on Learner Autonomy of Lower Secondary School Students” included the learner autonomy questionnaire, interview questions, learning log questions, long-range plan of project-based English instruction, and sample lesson plans of project-based English instruction.

List of experts for the back translation of the learner autonomy questionnaire

1. Chanukrit Thienkalaya
Bangkok University
2. David D. Perrodin
Mahidol University
3. Bruce Wright

List of experts for interview questions and learning log questions

1. Associate Professor Pornapit Darasawang, Ph.D.
King Mongkut’s University of Technology Thonburi
2. Associate Professor Chamaipak Tayjanant, Ph.D.
Kasetsart University
3. Assistant Professor Rosukhon Swatevacharkul, Ph.D.
Assumption University

List of experts for long-range plan and sample lesson plans of project-based English instruction

1. Pitaya Thipwajana, Ph.D.
Educator, Ministry of Education
2. Kriengkrai Sakulprasertsri
Thammasat University
3. Nuttanun Niwesworakarn
Chiang Mai University

APPENDIX B
Language Learner Autonomy Questionnaire
adopted from Murase (2015)

Instructions: This questionnaire consists of two parts. Part 1 is demographic information. Part 2 is learner autonomy scales. Please respond to all statements carefully. Your name and personal information will be kept confidential and will not be used for any purposes other than arranging the data collection.

Part 1: Demographic information

Instructions: Please give your personal information

1. Name: Mr. Ms.
2. Age.....years old.
3. Gender: male female

Part 2: Learner autonomy scales

Instructions: Please read the statements carefully and provide the sign ✓ for your scales. The questionnaire comprised of 50 items with five Likert's scales options as follows

- | | | |
|------------------------------|-------|---|
| 1 (strongly disagree) | means | I strongly disagree with this statement |
| 2 (disagree) | means | I disagree with this statement |
| 3 (not sure) | means | I neither agree nor disagree with this statement |
| 4 (agree) | means | I agree with this statement |
| 5 (strongly agree) | means | I strongly agree with this statement |

Items	Statements	scales				
		1	2	3	4	5
1	I set long-term goals in learning English.					
2	I set goals for the day before I start studying English.					
3	I make long-term plans for studying English.					
4	I make study plans for the day before I start studying English.					
5	I revise my English study plans if they don't work well.					
6	I try to create opportunities to use English outside the classroom.					
7	I reflect upon how I studied after I finish studying English for the day.					
8	I reflect upon what I learned after I finish studying English for the day.					
9	I evaluate the improvement in my ability to use English effectively.					
10	I assess how much of my goal I have achieved.					
11	I assess the effectiveness of my English study plans.					
12	I keep records of what kind of methods I used for my English study.					
14	I keep records of what I learned from my English study.					
14	I take notes of my feelings while I am studying English.					
15	I will need to continue studying English after graduation.					
16	All students ought to set their own goals in learning English.					
17	Every student ought to set long-term goals in learning English.					
18	All students ought to make long-term plans for studying English.					
19	Every student ought to set goals for the day before he/she starts studying English.					
20	All students ought to choose the materials suitable for their goals in learning English.					
21	Every student ought to make study plans that match his/her goals in learning English.					
22	Every student ought to reflect upon how he/she studied after he/she finishes studying English for the day.					
23	All students ought to reflect upon what they learned after they finish studying English for the day.					
24	Every student ought to evaluate the improvement in his/her ability to use English effectively.					
25	I know what I need to study to improve my English.					

Items	Statements	scales				
		1	2	3	4	5
26	I know what I am good at in learning English. (e.g., “I am good at memorizing vocabulary.”)					
27	If I don’t feel like studying English, I know the reason.					
28	If I don’t feel like studying English, I know how I can motivate myself.					
29	I like the English language.					
30	I like studying English.					
31	The reason that I study English is to pass the exams for English classes.					
32	We should fulfill the expectations of our society.					
33	I am aware of the goals of the English classes I am taking.					
34	Students should have the right to freely tell the teacher what they want to learn.					
35	Students should have the right to freely make decisions about their own learning.					
36	Students should have the right to freely decide the materials for studying.					
37	Students should have the right to freely decide their own goals in learning English.					
38	I am able to decide the materials for studying English if given the freedom to do so.					
39	I am able to decide my own goals in learning English if given the freedom to do so.					
40	The teacher and students should negotiate on the goals in learning English.					
41	The teacher and students should negotiate on the plans for studying English.					
42	The teacher and students should negotiate on the materials for studying English.					
43	The teacher and students should negotiate on the topics covered in the class.					
44	I sometimes want to ask other students for advice about my English learning.					
45	I want to know how other students are learning English.					
46	I sometimes adopt what other students are doing into my own learning.					
47	Students can help each other learn English.					
48	I find it useful to study English with other students.					
49	Western students tend to speak out actively during class.					
50	Thai students have the ability to learn autonomously.					

Thank you for your cooperation!



APPENDIX C

Language Learner Autonomy Questionnaire in Thai Version adopted from Murase (2015)

แบบสอบถามเกี่ยวกับความสามารถในการเรียนรู้ด้วยตนเองด้านภาษา

คำชี้แจง: แบบสอบถามนี้ประกอบด้วยคำถาม 2 ตอน ตอนที่ 1 เกี่ยวกับข้อมูลส่วนตัวของนักเรียน ตอนที่ 2 เกี่ยวกับความสามารถในการเรียนรู้ด้วยตนเองของนักเรียน กรุณาตอบคำถามทุกข้ออย่างรอบคอบ ชื่อและข้อมูลส่วนตัวของท่านจะถูกเก็บเป็นความลับและจะไม่ถูกใช้เพื่อวัตถุประสงค์อื่นนอกจากสำหรับการเรียงและเก็บข้อมูลในการศึกษาครั้งนี้

ตอนที่ 1: ข้อมูลส่วนตัวของนักเรียน

คำชี้แจง: โปรดกรอกข้อมูลส่วนตัวของนักเรียน

1. ชื่อ-นามสกุล
2. อายุ ปี
3. เพศ ชาย หญิง

ตอนที่ 2: การวัดความสามารถในการเรียนรู้ด้วยตนเอง

คำชี้แจง: กรุณาอ่านและทำความเข้าใจข้อความแต่ละข้ออย่างรอบคอบและทำเครื่องหมาย ✓ ลงในช่องคำตอบช่องใดช่องหนึ่ง แบบสอบถามประกอบด้วยข้อความจำนวน 50 ข้อ มาตราวัดในแบบสอบถาม มีความหมายดังนี้

- | | | |
|---|---------|--|
| 1 | หมายถึง | นักเรียนไม่เห็นด้วยอย่างยิ่งกับข้อความนั้น |
| 2 | หมายถึง | นักเรียนไม่เห็นด้วยกับข้อความนั้น |
| 3 | หมายถึง | นักเรียนไม่แน่ใจกับข้อความนั้น |
| 4 | หมายถึง | นักเรียนเห็นด้วยกับข้อความนั้น |
| 5 | หมายถึง | นักเรียนเห็นด้วยอย่างยิ่งกับข้อความนั้น |

ที่	รายการ	ระดับ				
		1	2	3	4	5
1	ฉันตั้งเป้าหมายระยะยาวในการเรียนภาษาอังกฤษ					
2	ฉันตั้งเป้าหมายของแต่ละวันก่อนที่ฉันจะเริ่มเรียนภาษาอังกฤษ					
3	ฉันวางแผนระยะยาวในการเรียนภาษาอังกฤษ					
4	ฉันวางแผนของแต่ละวันก่อนที่ฉันจะเริ่มเรียนภาษาอังกฤษ					
5	ฉันปรับแผนการเรียนภาษาอังกฤษหากแผนที่ตั้งไว้ไม่ได้ผล					
6	ฉันพยายามหาโอกาสที่จะใช้ภาษาอังกฤษนอกห้องเรียน					
7	ฉันทบทวนถึงวิธีที่ฉันใช้ในการเรียนภาษาอังกฤษหลังจากเรียนเสร็จในแต่ละวัน					
8	ฉันทบทวนถึงสิ่งที่ฉันได้เรียนรู้หลังจากที่เรียนภาษาอังกฤษเสร็จในแต่ละวัน					
9	ฉันสามารถประเมินการพัฒนาความสามารถในการใช้ภาษาอังกฤษของตนเองได้อย่างมีประสิทธิภาพ					
10	ฉันประเมินได้ว่าฉันประสบความสำเร็จตามเป้าหมายที่ตั้งไว้มากแค่ไหน					
11	ฉันประเมินประสิทธิภาพของแผนการเรียนภาษาอังกฤษของตนเอง					
12	ฉันเก็บข้อมูลว่าตนเองใช้วิธีการอะไรบ้างในการเรียนภาษาอังกฤษของฉัน					

ที่	รายการ	ระดับ				
		1	2	3	4	5
14	ฉันเก็บข้อมูลว่าฉันได้เรียนรู้อะไรบ้างจากการเรียนภาษาอังกฤษของฉัน					
14	ฉันจดบันทึกความรู้สึกของตนเองในเวลาที่เรียนภาษาอังกฤษ					
15	ฉันจำเป็นต้องเรียนภาษาอังกฤษต่อเนื่องไปหลังจากที่เรียนจบแล้ว					
16	นักเรียนทุกคนควรตั้งเป้าหมายของตัวเองสำหรับการเรียนภาษาอังกฤษ					
17	นักเรียนทุกคนควรตั้งเป้าหมายระยะยาวสำหรับการเรียนภาษาอังกฤษ					
18	นักเรียนทุกคนควรวางแผนการเรียนระยะยาวสำหรับการเรียนภาษาอังกฤษ					
19	นักเรียนแต่ละคนควรตั้งเป้าหมายสำหรับแต่ละวันก่อนที่จะเริ่มเรียนภาษาอังกฤษ					
20	นักเรียนทุกคนควรเลือกสื่อการเรียนรู้ที่เหมาะสมกับเป้าหมายในการเรียนภาษาอังกฤษของตนเอง					
21	นักเรียนทุกคนควรวางแผนการเรียนที่ตรงกับเป้าหมายในการเรียนภาษาอังกฤษของตนเอง					
22	นักเรียนทุกคนควรทบทวนถึงวิธีที่ใช้ในการเรียนภาษาอังกฤษหลังจากการเรียนในแต่ละวัน					
23	นักเรียนทุกคนควรทบทวนถึงสิ่งที่ตนเองได้เรียนรู้หลังจากการเรียนภาษาอังกฤษในแต่ละวัน					
24	นักเรียนแต่ละคนควรประเมินการพัฒนาความสามารถในการใช้ภาษาอังกฤษของตนเองอย่างมีประสิทธิภาพ					
25	ฉันรู้ว่าฉันต้องเรียนอะไรบ้างเพื่อที่จะได้พัฒนาภาษาอังกฤษของตนเอง					
26	ฉันรู้ว่าตนเองเรียนภาษาอังกฤษได้ดีในด้านใดบ้าง (เช่น ฉันจำคำศัพท์เก่ง)					
27	ฉันรู้เหตุผล เวลาที่ฉันไม่ยอมเรียนภาษาอังกฤษ					
28	เวลาที่ฉันไม่ยอมเรียนภาษาอังกฤษ ฉันรู้ว่าต้องทำอะไรที่จะกระตุ้นให้ตนเองอยากเรียนได้					
29	ฉันชอบภาษาอังกฤษ					
30	ฉันชอบเรียนภาษาอังกฤษ					
31	เหตุผลที่ฉันเรียนภาษาอังกฤษคือ เพื่อที่จะสอบให้ผ่านในวิชาภาษาอังกฤษ					

ที่	รายการ	ระดับ				
		1	2	3	4	5
32	เราควรตอบสนองความคาดหวังของสังคมของเรา					
33	ฉันรู้เป้าหมายของวิชาภาษาอังกฤษที่ฉันกำลังเรียนอยู่					
34	นักเรียนควรมีสิทธิ์ที่จะบอกครูว่าตนเองต้องการเรียนเรื่องอะไรได้อย่างอิสระ					
35	นักเรียนควรมีสิทธิ์ในการตัดสินใจเกี่ยวกับการเรียนรู้ของตนเองได้อย่างอิสระ					
36	นักเรียนควรมีสิทธิ์ในการตัดสินใจเลือกสื่อการเรียนรู้ได้อย่างอิสระ					
37	นักเรียนควรมีสิทธิ์ในการตัดสินใจเกี่ยวกับเป้าหมายในการเรียนภาษาอังกฤษของตนเองได้อย่างอิสระ					
38	ฉันสามารถเลือกสื่อการเรียนรู้สำหรับการเรียนภาษาอังกฤษได้เมื่อฉันมีอิสระที่จะตัดสินใจ					
39	ฉันสามารถตัดสินใจเกี่ยวกับเป้าหมายในการเรียนภาษาอังกฤษของตนเองได้ เมื่อฉันมีอิสระที่จะตัดสินใจ					
40	ครูและนักเรียนควรเจรจาต่อรองกันเกี่ยวกับเป้าหมายในการเรียนภาษาอังกฤษ					
41	ครูและนักเรียนควรเจรจาต่อรองกันเกี่ยวกับแผนการเรียนภาษาอังกฤษ					
42	ครูและนักเรียนควรเจรจาต่อรองกันเกี่ยวกับสื่อการเรียนรู้ภาษาอังกฤษ					
43	ครูและนักเรียนควรเจรจาต่อรองกันเกี่ยวกับหัวข้อที่ต้องเรียนในชั้นเรียน					
44	บางครั้งฉันอยากขอคำแนะนำจากนักเรียนคนอื่นเกี่ยวกับการเรียนภาษาอังกฤษของฉัน					
45	ฉันอยากรู้ว่านักเรียนคนอื่นๆ มีวิธีเรียนภาษาอังกฤษกันอย่างไร					
46	บางครั้งฉันก็นำวิธีการเรียนรู้ของนักเรียนคนอื่นมาปรับใช้ในการเรียนรู้ของตนเอง					
47	นักเรียนสามารถช่วยเหลือกันในการเรียนภาษาอังกฤษได้					
48	ฉันพบว่าการเรียนภาษาอังกฤษร่วมกับนักเรียนคนอื่นมีประโยชน์					
49	นักเรียนชาวตะวันตกมักจะแสดงความคิดเห็นอย่างกระตือรือร้นในระหว่างเรียน					
50	นักเรียนไทยมีความสามารถในการเรียนรู้ด้วยตนเอง					

ขอบคุณสำหรับการตอบแบบสอบถาม



APPENDIX D

The Semi-structured Interview Questions

Opening questions

วันนี้เป็นการสัมภาษณ์หลังจากการที่นักเรียนได้ผ่านการเรียนภาษาอังกฤษในโครงการมาแล้ว ครูต้องขอให้นักเรียนที่ให้ความร่วมมือเป็นอย่างดีในการทำโครงการครั้งนี้และอนุญาตให้ครูสัมภาษณ์ในครั้งนี้ด้วยถ้าเป็นไปได้เรามาเริ่มกันเลยอยากทราบว่านักเรียนรู้สึกอย่างไรบ้างกับการเรียนภาษาอังกฤษในโครงการที่ผ่านมา

Main questions

1. นักเรียนใช้วิธีอะไรบ้างในการเรียนภาษาอังกฤษด้วยตนเองในระหว่างการทำโครงการครั้งนี้
2. นักเรียนทำอย่างไรบ้างเพื่อจูงใจให้ตัวเองเรียนหรือใช้ภาษาอังกฤษด้วยตนเองนอกห้องเรียน
3. เวลาที่นักเรียนเรียนหรือใช้ภาษาอังกฤษด้วยตนเองนอกห้องเรียน นักเรียนเกิดความวิตกกังวลหรือไม่

3.1 เวลาที่มีความวิตกกังวลนักเรียนทำอย่างไรบ้างเพื่อลดความวิตกกังวลนั้น

4. นักเรียนต้องตัดสินใจอะไรเองบ้างในการเรียนภาษาอังกฤษผ่านโครงการนี้

4.1 นักเรียนทำอย่างไรเมื่อต้องตัดสินใจเรื่องต่างๆ ในการเรียนภาษาอังกฤษผ่านโครงการนี้

5. นักเรียนเคยเจอคำตอบตรงกับครูเกี่ยวกับกิจกรรมการเรียนรู้ภาษาอังกฤษในการทำโครงการครั้งนี้หรือไม่

5.1 เคยต่อเรื่องอะไรและนักเรียนใช้วิธีอย่างไร

6. นักเรียนได้เรียนรู้ภาษาอังกฤษเรื่องอะไรบ้างจากการทำงานกลุ่มในโครงการครั้งนี้

6.1 นักเรียนได้เรียนรู้ภาษาอังกฤษด้วยวิธีอะไร

7. นักเรียนได้พัฒนาภาษาอังกฤษเรื่องอะไรบ้างจากการทำงานกลุ่มในโครงการครั้งนี้

7.1 นักเรียนได้พัฒนาภาษาอังกฤษด้วยวิธีอะไร


Closing questions

การสัมภาษณ์ในครั้งนี้ช่วยให้นักเรียนนึกย้อนถึงวิธีการในการเรียนภาษาอังกฤษด้วยตนเองนอกห้องเรียนและในขณะที่ทำงานเป็นกลุ่มผ่านการทำโครงการนี้หรือไม่ก่อนที่จะจบการสัมภาษณ์ในครั้งนี้ อยากทราบว่าหากในอนาคตนักเรียนมีโอกาสเรียนภาษาอังกฤษด้วยตนเองนอกห้องเรียนผ่านการทำโครงการอื่นนักเรียนจะปรับเปลี่ยนเรื่องอะไรบ้างและใช้วิธีการอะไรบ้างเพื่อทำให้การเรียนภาษาอังกฤษด้วยตนเองนอกห้องเรียนดีขึ้น

ขอบคุณสำหรับความร่วมมือในการแบ่งปันประสบการณ์เกี่ยวกับวิธีการในการเรียนภาษาอังกฤษด้วยตนเองนอกห้องเรียนในการสัมภาษณ์ครั้งนี้

APPENDIX E

Learning Log

<p>1. นักเรียนใช้วิธีการอะไรบ้างในการเรียนภาษาอังกฤษด้วยตนเองนอกห้องเรียนหรือเรียนรู้ จากการทำงานกลุ่มในระหว่างการทำโครงการในสัปดาห์นี้</p>

<p>2. นักเรียนมีวิธีการอะไรบ้างในการจัดการกับปัญหาหรืออุปสรรคในการเรียนรู้ภาษาอังกฤษ ด้วยตนเองนอกห้องเรียนในระหว่างการทำโครงการในสัปดาห์นี้</p>
<p>CHULALONGKORN UNIVERSITY</p>
<p>3. นักเรียนใช้วิธีการอะไรบ้างในการกระตุ้นตนเองให้อยากเรียนภาษาอังกฤษด้วยตนเอง นอกห้องเรียนระหว่างการทำโครงการในสัปดาห์นี้</p>



APPENDIX F

The Items under Four Dimensions of Learner Autonomy

Table 6 The Items under Four Dimensions of Learner Autonomy

Autonomy Dimensions	Sub-dimensions	Statements
Technical autonomy	Behavioral sub-dimensions	1. I set long-term goals in learning English. 2. I set goals for the day before I start studying English. 3. I make long-term plans for studying English. 4. I make study plans for the day before I start studying English. 5. I revise my English study plans if they don't work well. 6. I try to create opportunities to use English outside the classroom.

Autonomy Dimensions	Sub-dimensions	Statements
		<p>7. I reflect upon how I studied after I finish studying English for the day.</p> <p>8. I reflect upon what I learned after I finish studying English for the day.</p> <p>9. I evaluate the improvement in my ability to use English effectively.</p> <p>10. I assess how much of my goal I have achieved.</p> <p>11. I assess the effectiveness of my English study plans.</p> <p>12. I keep records of what kind of methods I used for my English study.</p> <p>14. I keep records of what I learned from my English study.</p> <p>14. I take notes of my feelings while I am studying English.</p>
	Situational sub-dimensions	15. I will need to continue studying English after graduation.
Psychological autonomy	Metacognitive sub-dimensions	16. All students ought to set their own goals in learning English.

Autonomy Dimensions	Sub-dimensions	Statements
		<p>17. Every student ought to set long-term goals in learning English.</p> <p>18. All students ought to make long-term plans for studying English.</p> <p>19. Every student ought to set goals for the day before he/she starts studying English.</p> <p>20. All students ought to choose the materials suitable for their goals in learning English.</p> <p>21. Every student ought to make study plans that match his/her goals in learning English.</p> <p>22. Every student ought to reflect upon how he/she studied after he/she finishes studying English for the day.</p> <p>23. All students ought to reflect upon what they learned after they finish studying English for the day.</p>

Autonomy Dimensions	Sub-dimensions	Statements
		24. Every student ought to evaluate the improvement in his/her ability to use English effectively.
	Affective sub-dimensions	<p>25. I know what I need to study to improve my English.</p> <p>26. I know what I am good at in learning English. (e.g., “I am good at memorizing vocabulary.”)</p> <p>27. If I don’t feel like studying English, I know the reason.</p> <p>28. If I don’t feel like studying English, I know how I can motivate myself.</p>
	Motivational sub-dimensions	<p>29. I like the English language.</p> <p>30. I like studying English.</p> <p>31. The reason that I study English is to pass the exams for English classes.</p>
Political-philosophical autonomy	Group autonomy sub-dimensions	<p>32. We should fulfill the expectations of our society.</p> <p>33. I am aware of the goals of the English classes I am taking.</p>

Autonomy Dimensions	Sub-dimensions	Statements
	Individual autonomy sub-dimensions	<p>34. Students should have the right to freely tell the teacher what they want to learn.</p> <p>35. Students should have the right to freely make decisions about their own learning.</p> <p>36. Students should have the right to freely decide the materials for studying.</p> <p>37. Students should have the right to freely decide their own goals in learning English.</p> <p>38. I am able to decide the materials for studying English if given the freedom to do so.</p> <p>39. I am able to decide my own goals in learning English if given the freedom to do so.</p>
	Freedom sub-dimensions	40. The teacher and students should negotiate on the goals in learning English.

Autonomy Dimensions	Sub-dimensions	Statements
		<p>41. The teacher and students should negotiate on the plans for studying English.</p> <p>42. The teacher and students should negotiate on the materials for studying English.</p> <p>43. The teacher and students should negotiate on the topics covered in the class.</p>
Socio-cultural autonomy	Social sub-dimensions	<p>44. I sometimes want to ask other students for advice about my English learning.</p> <p>45. I want to know how other students are learning English.</p> <p>46. I sometimes adopt what other students are doing into my own learning.</p> <p>47. Students can help each other learn English.</p> <p>48. I find it useful to study English with other students.</p>

Autonomy Dimensions	Sub-dimensions	Statements
	Cultural sub-dimensions	49. Western students tend to speak out actively during class. 50. Thai students have the ability to learn autonomously.



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Table 7 Long Range Lesson Plan

Time	Phases	Lessons	Description
Week 1 (1 Period: 90 minutes)	1	Project orientation	- Identifying the processes of a project-based lesson, course expectations and their roles - Describing the processes of a project-based lesson, course expectations and their roles.
Week 2	1	Choosing a class theme	- To choose the theme they are interested in working on in the project

Time	Phases	Lessons	Description
(1 Period: 90 minutes)			
Week 3 (1 Period: 90 minutes)	1	Exploring the problems/current situations	- Identifying problems with the theme - Describing the problems or current situations about the theme
Week 4 (1 Period: 90 minutes)	1	Creating a driving question/proposing the group products	- Proposing the group product based on group agreement - Discussing the group product
Week 5 (1 Period: 90 minutes)	2	Survey methods	- Choosing the appropriate survey methods for the project - Giving the reasons behind choosing the survey methods
Week 6 (1 Period: 90 minutes)	2	Creating survey questions	- Developing the survey questions - Expressing opinions about the survey questions
Week 7 (1 Period: 90 minutes)	2	Creating the online survey form	- Creating an online survey form - Giving advice about creating an online survey form
Week 8 (1 Period: 90 minutes)	3	Planning for collecting the data, analyzing the data, creating the	- Making a project plan for collecting the data, analyzing the data, creating the product, revising the product, and presenting the product

Time	Phases	Lessons	Description
		product, revising the product, and presenting the product	- Expressing opinions towards the project plan
Week 9 (Outside the classroom)	3	Collecting the data	-
Week 10 (1 Period: 90 minutes)	3	Analyzing the data	- Analyzing the data obtained from the online survey - Giving the reasons behind the formed categories
Week 11 (1 Period: 90 minutes)	3	Creating the poster	- Creating a poster - Expressing opinions terms of agreement and disagreement about the content and design of the poster
Week 12 (Outside the classroom)	3	Developing the poster	-
Week 13 (1 Period: 90 minutes)	4	Critiquing the poster	- Critiquing poster - Suggesting the ways to revise a poster

Time	Phases	Lessons	Description
Week 14 (1 Period: 90 minutes)	4	Giving the critical reflection	- Giving the critical reflection on the learning process - Telling the future plan for their learning



APPENDIX H

Lesson Plan 1

Lesson 1: Project orientation

Time: 90 minutes

Phase 1: Launching the project

Learning Outcomes (Project)

At the end of the lesson, students will be able **to describe the processes of a project-based lesson, course expectations and their roles.**

Learning Outcomes of Language Aspect:

At the end of the lesson, students will be able **to describe information related to the processes of a project-based lesson, course expectations and their roles.**

Materials:

- Video about the process of project-based lessons:
<https://www.youtube.com/watch?v=YOUp7KHB9GY>
- Video about the students' roles
<https://www.youtube.com/watch?v=WD4a3kqNWfc>
- Wordwall: Matching vocabulary: <https://wordwall.net/th/resource/34261576>
- Wordwall: Filling the gaps: <https://wordwall.net/th/resource/34261761>
- Google Classroom: Worksheet “Describe the process”
- PowerPoint Slides
- Zoom Application

Assessment:

1. Students describe the process of a project-based lesson, course expectations and their roles.

Content:**Language content**

- Vocabulary related to the process of a project-based lesson, course expectations and the students' roles in the project-based lessons.

project	meaningful	plan	choose	form
explore	discuss	agreement	develop	reflection

Words to describe the process

- **Beginning steps:** first, the first step, to start the process
- **Middle steps:** second, then, next, after that, following this, the next stage is
- **End steps:** finally, the final step, lastly, the last step

Project-based learning content**1. Project-based lessons**

Project-based lessons are the lessons that can help you learn better in your own ways and work in groups to produce a meaningful project that is related to your own life.

2. The example of projects

The example of the projects is “**Traveling on a Budget**”.

The students need to plan a trip with a limited budget or money. Firstly, the students in the project choose a location they are interested in. Secondly, they work in groups to create a plan for their trips by using a Google Sheet to create a plan. Each group creates a spreadsheet with the budget or money set by the teacher and adds the categories like transportation, accommodation, food, and attractions into the sheet. Then, they need to help each other to research the transportation, accommodation, food, and attractions in the locations they are interested in to make a plan.

3. Phases and activities of project-based lesson

Phase 1: Launching the project

You need to **learn about project-based lessons**. Then, **you choose a class theme by voting**. Then, you **form groups for the project**. Next, you need to work in your groups to **explore the problems** or the current situations about the chosen theme. Once you have found the problems, you need to **make a driving question** that can be a guideline to help you solve the problems. Then, you discuss in your groups to **define the end products** that you can produce and answer the driving question.

Phase 2: Building knowledge, understanding, and skills

In the second phase, you need to **study the causes of the problems** to understand what is happening. Once you know the causes of the problems, you need to **research the solutions to solve the problems**. After you have various ways to solve

the problems, you need to work in groups to make an agreement to **choose the solutions** that you think that your groups can do and answer the driving question.

Phase 3: Developing, critiquing, and revising products

In the third phase, you need to work in groups to **plan to develop the group products** by talking about information management, group work division, and time management. Then, you need to help each other in your groups to **make the first drafts of the group products** after you search for information you need for your group products from the previous period. Next, you need to **propose the second drafts of the group products to the class** to get the feedback from friends and the teacher. Once you have the feedback, you need to discuss in your groups and edit the drafts of the group products. After that, it is the time to **rehearse their group presentations or do presentation training** to make their group product better and prepare themselves for the final presenting product day.

Phase 4: Presenting products

In the fourth phase, you need to **present your final group products to the audience, give feedback** towards the group product presentations, and **give reflections** towards the learning process.

4. The students' roles

Active learners who maintain an inquiry process throughout the project-based lesson. In the inquiry process, active learners need to ask questions, research, summarize, and discuss with others.

Ask questions

You should ask questions about what you are learning or interested in. You can begin to ask questions by using basic WH-questions. For example, if you want to do a project about how to skateboard safely, you can set the questions as follows to guide you to find the answers and want to learn more about how to skateboard safely.

- What should we prepare before skateboarding?
- Who can skateboard?
- How can we skateboard safely?
- Where can we skateboard?
- When can we skateboard?

Research

You need to research or find the answers to the questions. You may get the answers from **reading books**. You may get the answers from **watching videos**. You may get the answers from reading articles on **reliable websites**. You may get the answers from **interviewing the experts** in the field that you are interested in. The most important thing that you need to remember is that you need to find the answers from reliable and various learning resources to widen your knowledge and get clear answers.

Questions for checking whether the resources are reliable or not

I will give you some tips to help you check whether the resources are reliable or not. You need to answer the following questions.

- Who is the author? Is he a big name in the field you are interested in?
- Who creates? Is it a well-known organization or company?
- Where is it published? Is it published in a reliable journal?

- How many people do they use the resource?

You need to ask yourself the questions and try to answer the questions to help you know whether your learning resources are reliable.

The types of main domains you will see on the internet.

- .co (Commercial) is for the business bodies.
- .ac (Academy) is for the academic institute.
- .org (Organization) is for a non-profit organization.
- .gov (Government) is for a government.

Summarize

After you find the answers from reliable learning resources, you need to summarize what you have read and listened to build your own knowledge. In the process of summarizing, you need to try to catch the writers' main points and then try to write them in a short version with your own words because summarizing the information in your own words can help you understand the information better.

Tips that can help you to summarize what you have read effectively are as follows.

1. Preview and read: You need to read the text closely and more than one time to help you to understand what the text is about and to see a big picture of the information in the text.
2. Make a list or outline: First, you need to identify the main idea and supporting ideas in the text. Then, make a list or outline of the ideas to prepare for writing a summary in your own words.

3. Write a summary: After you have the outline of the idea in the text, you need to use it to write the summary by telling the main idea and necessary supporting ideas in a short version.


Discuss

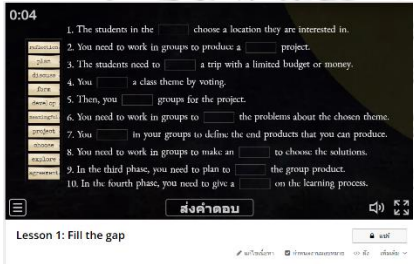
After you have the information about the topic you are interested in, you need to discuss with others to share or exchange what you have found in order to reach the decision. This process can help you learn something new from your friends because everyone has opportunities to talk about what they have read or listened to related to the topic. Moreover, the others in the group have opportunities to express agreement and disagreement with the reasons. After finishing the sharing session, everyone needs to make a decision to choose the most appropriate ways to solve the problems for their groups based on the reasons they have discussed.

Instructional procedures

Instructional Stage	Instructional Procedures	
	Teacher	Learners
Pre-class Activity	<p>(Create activities about vocabulary learning about the process of a project-based lesson, and the students' roles in the project-based lessons on Wordwall. Then, give the students the links for activities in Group Line. After that, inform the students the instructions for doing the activity about the vocabulary learning activity in Group Line)</p> <ul style="list-style-type: none"> - You need to do the vocabulary learning activities about the process of a project-based lesson, and the students' roles in the project-based lessons on Wordwall 	<p>(Do the two vocabulary learning activities about process of a project-based lesson, and the students' roles in the project-based lessons on Wordwall)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>before watching the video posted on YouTube.</p> <ul style="list-style-type: none"> - Please read the following instructions provided. <ul style="list-style-type: none"> • There are two activities you need to complete. In the first activity, you need to match the vocabulary about the process of a project-based lesson, course expectations and the students' roles in the project-based lessons with the definitions provided. • In the second activity, please read the sentences provided and fill the gaps with the vocabulary given to complete the sentences. 	


Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> Please click the two links below. You need to enter your name before doing each activity. For the first activity, please drag and drop each vocabulary next to its definition. For the second activity, you need to drag and drop words to the gaps to complete the sentences. <p>The first link: Matching</p> <p>https://wordwall.net/th/resource/34261576</p> 	

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>The second link: Filling the gaps</p> <p>https://wordwall.net/th/resource/34261761</p> 	
	<p>(Post the video of project-based lessons, students' roles, and course expectation, on YouTube.</p> <p>Project-based lessons</p> <p>https://www.youtube.com/watch?v=YOUp7KHB9GY</p>	<p>(Watch the video about the process of project-based lessons, students' roles, and course expectations. While watching the video, the students are asked to take notes following the guided questions provided by the teacher to check whether they watched the video and to</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p data-bbox="552 562 911 824">  </p> <p data-bbox="552 887 746 920">Students' roles</p> <p data-bbox="552 983 975 1088"> https://www.youtube.com/watch?v=WD4a3kqNWfc </p> <p data-bbox="552 1122 943 1384">  </p> <p data-bbox="552 1447 970 1704">(Set the guided questions for the videos as a guideline to help the students have the purpose of listening and taking notes)</p> <ul data-bbox="595 1765 970 1944" style="list-style-type: none"> • How many phases are there in the project-based lesson? 	<p data-bbox="1066 562 1401 674">prepare them for the class activities)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> • What are the phases of the project-based lesson? • What are the activities in each phase? • What are the roles that you need to do through the process of project-based lessons? 	
	<p>(Create the worksheet “Describe the process” that provides words telling the steps and activities asking the students to apply what they have learned in the practical ways)</p> <p>- You need to do the worksheet “Describe the process” on Google Classroom after watching the video posted on YouTube.</p>	<p>(Do the worksheet “Describe the process” on Google Classroom)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>- Please read the following instructions provided.</p> <ul style="list-style-type: none"> • There are three activities you need to complete. In the first activity, you need to learn the words using to describe the process or tell the steps and how to tell the steps.  <ul style="list-style-type: none"> • In the second activity, please write the words using to tell the steps you 	

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>have learned from the provided video.</p> <p>DESCRIBE THE PROCESS</p> <p>Directions: Please write the words telling the steps you have learned from the provided video "Project Orientation".</p>  <p>• In the third activity, please rearrange the steps of doing a project in the correct order. Then, choose and write the correct words telling the steps provided for each step.</p>	

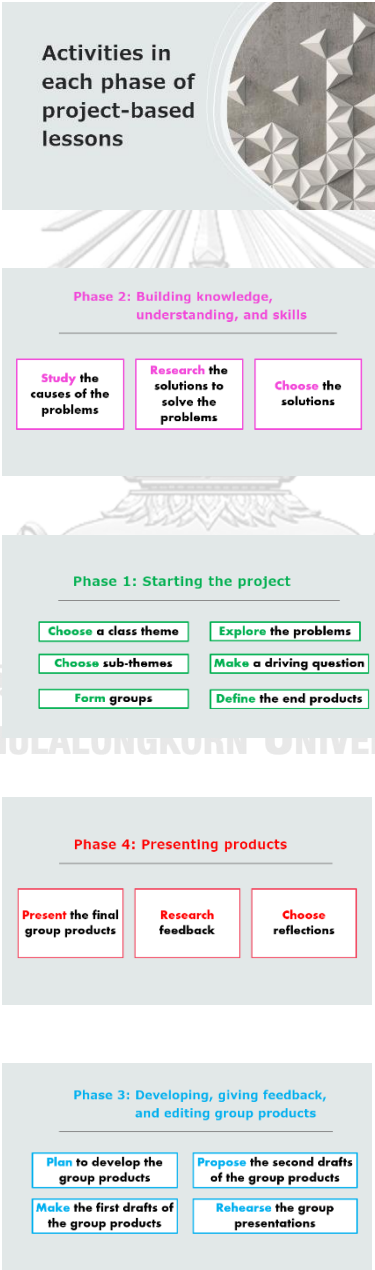
Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>DESCRIBE THE PROCESS Directions: Watch the provided video "Project Orientation". Then, rearrange the steps of doing a project in the correct order. Then, choose the words to tell the steps provided.</p> <p>create a driving question from the explored problems and plan to explore the answer. present the products. choose the class theme. learn the necessary knowledge and skills for the project. form small groups for the project. develop and revise the products.</p> <p>First Then Second Next Finally After that</p> <p>1. First, choose the class theme. 2. _____ 3. _____ 4. _____ 5. After that, _____ 6. _____</p> <p>DESCRIBE THE PROCESS The answer</p> <p>1. First, choose the class theme. 2. Second, form small groups for the project. 3. Then, create a driving question from the explored problems and plan to explore the answers 4. Next, learn the necessary knowledge and skills for the project 5. After that, develop and revise the products. 6. Finally, present the products.</p>	
Warm-up	(Greetings)	(Greetings)
(5 Minutes)	(Check background knowledge and introducing the lesson outcome)	(Various answers)

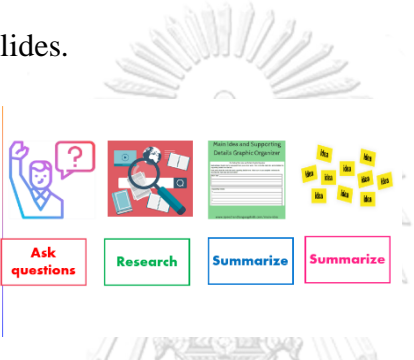
Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> - Have you ever heard the word “project-based learning”? 	
	<ul style="list-style-type: none"> - Can you guess what you will experience in project-based lessons? 	(Various answers)
	<ul style="list-style-type: none"> - That’s great to hear your sharing. This is the first time for most of you to experience project-based learning, so it is necessary to understand the process of project-based lesson, course expectation, and your roles while learning in the project-based lesson. While learning the process of project-based lesson, course expectations and your roles, you can ask for clarification 	

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	if you do not understand any parts of them.	
<p>Main Activities (45 Minutes)</p>	<p>(Check the students' understanding of the content in the video clip)</p> <ul style="list-style-type: none"> - After you learned about the process of project-based lesson from the video. Today, I would like all of you to share what you have learned. <ul style="list-style-type: none"> ● How many phases are there in the project-based lesson? 	<p>(Identify the numbers of the phases of project-based lesson)</p>
	<ul style="list-style-type: none"> ● What are the phases of the project-based lesson? 	<p>4 phases</p>
	<ul style="list-style-type: none"> ● What are the roles that you need to do through the 	<p>(Identify the students' roles in the project-based lesson)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>process of project-based lessons?</p>	
	<p>(Ask the students to discuss in groups)</p> <ul style="list-style-type: none"> - Great job. Next, to help you better understand the process of project-based lessons and your roles to reach the course expectations, I will break all of you into four small groups randomly in the breaking rooms in the ZOOM application and assign one phase for each group to discuss the following issues. <ul style="list-style-type: none"> ● What activities do you need to do in the assigned phase? 	<p>(Discuss the activities that they need to do in their assigned phase in groups)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> Which activities do you think are difficult to do in the phase? Explain your reasons. 	(Various answers)
	(Ask each group to present what they have discussed)	(Present what each group has discussed to the class)
Conclusion (10 Minutes)	<p>(Ask the students to summarize what they have learned throughout the lesson by asking them to identify the phases from activities, the course expectations, and the students' roles from the pictures shown on the PowerPoint Slides.)</p> <p>- I will show you the activities in different phases of a project-based lesson. You need to read them and</p>	<p>(Identify the phases of project-based lesson following the activities they have read on the screen)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>identify which phase are the activities in.</p>  <p>Activities in each phase of project-based lessons</p> <p>Phase 2: Building knowledge, understanding, and skills</p> <ul style="list-style-type: none"> Study the causes of the problems Research the solutions to solve the problems Choose the solutions <p>Phase 1: Starting the project</p> <ul style="list-style-type: none"> Choose a class theme Explore the problems Choose sub-themes Make a driving question Form groups Define the end products <p>Phase 4: Presenting products</p> <ul style="list-style-type: none"> Present the final group products Research feedback Choose reflections <p>Phase 3: Developing, giving feedback, and editing group products</p> <ul style="list-style-type: none"> Plan to develop the group products Propose the second drafts of the group products Make the first drafts of the group products Rehearse the group presentations 	

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>- Great. It is time to describe your roles following the pictures shown on the PowerPoint Slides.</p> 	<p>(Look at the pictures and describe the roles following the pictures)</p>
	<p>(Ask the students to summarize the useful expressions and the ways used to describe the process and information they have learned)</p>	<p>(Beginning steps: first, the first step, to start the process</p> <p>Middle steps: second, then, next, after that, following this, the next stage is</p> <p>End steps: finally, the final step, lastly, the last step)</p>
	<p>(Dismiss the class)</p> <p>- Now, we know the process of project-based lessons, students' roles, and course expectations. It</p>	

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	is such a good beginning of our project.	



DESCRIBE THE PROCESS

When writing about a process, you use words or phrases that describe a transition from one step to another. Let's break up the steps into beginning, middle and end and look at the words and phrases we can use to describe moving from step to step.



Beginning steps

first, the first step,
to start the process

Middle steps

second, then, next,
after that, following
this, the next stage is

End steps

finally, the final step,
lastly, the last step

DESCRIBE THE PROCESS

Directions: Please write the words telling the steps you have learned from the provided video "Project Orientation".

Beginning steps



Middle steps

End steps

DESCRIBE THE PROCESS

Directions: Watch the provided video "Project Orientation". Then, rearrange the steps of doing a project in the correct order. Then, choose the words to tell the steps provided.

create a driving question from the explored problems and plan to explore the answer.

present the products.

choose the class theme.

learn the necessary knowledge and skills for the project.

form small groups for the project.

develop and revise the products.

First

Then

Second

Finally

Next

After that



1. First, choose the class theme.

2. _____, _____

3. _____, _____

4. _____, _____

5. After that, _____

6. _____, _____

**DESCRIBE
THE
PROCESS****The answer**

1. First, choose the class theme.
2. Second, form small groups for the project.
3. Then, create a driving question from the explored problems and plan to explore the answers
4. Next, learn the necessary knowledge and skills for the project
5. After that, develop and revise the products.
6. Finally, present the products.

APPENDIX I

Lesson Plan 2

Lesson 2: Choosing a Class Theme

Time: 90 minutes

Phase 1: Launching the project

Learning Outcomes (Project)

At the end of the lesson, students will be able **to choose the class theme they are interested in working on in the project.**

Learning Outcomes of Language Aspect:

At the end of the lesson, students will be able **to give the reasons why they chose the theme.**

Materials:

- Video about choosing a theme on YouTube: <https://rb.gy/wekj2f>
- Kahoot Application (<https://rb.gy/remznc>)
- Menti Application (www.menti.com)
- Wheel Decide Application (<https://wheeldecide.com/>)
- Zoom Application

Assessment:

1. Students choose the theme they are interested in working on in the project.
2. Students give the reasons why they chose the theme.

Content:**Language content**

- Vocabulary related to how to choose the theme.

research	consider	resource	necessary	fulfil
purpose	manage	opportunity	environment	sustainable

Expressions to give the reasons

- **Because** (followed by Subject + verb)
 - I chose this theme because the content is meaningful to me.
 - I chose this theme because I'm interested in.
 - I chose this theme because I want to study the theme.
 - I chose this theme because I think that it is important to me.
 - I chose this theme because I could do the project under the theme.
- **Because of** (followed by a noun)
 - I chose this theme because of the content.
 - I chose this theme because of my interest.

Project-based learning content**How to choose the theme**

You should consider the following criteria when choosing the theme.

1. You can research more about the theme through the available learning resources.

2. You think that it is necessary for your life. It can help you to have a better quality of life in your community, solve the real-world problems, and fulfil the better future.

3. You can work on the theme for a long period. When you do a project, you need to spend much more time researching, collecting the data, analyzing the data, and developing the projects.

The best way to choose the theme is that you should choose the theme that is meaningful for you.

The Themes

There are ten themes for you to choose.

1. Families

It is about our families. The purpose aims at developing and keeping the good relationships in our families. This theme is very meaningful for you because the family is one of the most important things in our life. You can explore the creative ways to have happy families. Therefore, this theme can help you manage things in your families better.

2. Schools

It is about our schools. The purpose aims at promoting expected positive behaviors and changing unwanted habits in your schools. You will have opportunities to explore the problems occurring in your schools and help each other to figure out

the ways to solve the problems in the creative ways in order to make our school better.

3. The environment

It is about the environment in our life. The purpose aims at taking care our environment. In this theme, you will have chances to know the problems behind the bad effects from the environment and help each other to search for the sustainable ways to solve the problems in order to make our environment better.

4. Foods and beverages

It is about the foods and beverages. The purpose aims at promoting people to have healthy foods and beverages. You will have opportunities to study various foods and beverages and will be able to suggest others to consume your healthy foods and beverages. This can help you know what should take into your body in order to make you and people around you healthier.

5. Health and welfare

It is about our health and welfare. The purpose aims at promoting people to have good health and welfare. You will have opportunities to study the ways on how to stay healthy and have good welfare in the current society. Moreover, you will be able to give advice in terms of how to explore the ways to have sustainable ways to keep healthy and good welfare.

6. Climates

It is about the climates. The purposes aim at studying the causes of the climate change and raising the awareness of the ways to save our world. You will have chances to study various causes of climate change and explore the creative solutions for the climate change. Moreover, you will discover the ways to encourage people to concern about the effects of climate change.

7. Education and occupations

It is about the education and occupations. The purpose aims at encouraging yourselves to understand your own needs in order to have the clear goals for future education and occupations. You will have opportunities to focus on your own needs and study the trend for the future occupations that serve for the future ways of life. This can help you prepare yourself to be ready for the future society.

8. Travel for tourism

It is about the travel for tourism. The purpose aims at promoting tourism in order to invite people to visit your tourist attractions in your province. You will have opportunities to study your own tourist attractions and explore the creative ways to attract the people to visit our province more. This can help you know the beautiful places, delicious foods, and cultures in your own province more. Moreover, you will be able to promote tourism in your province by using your creative ways. You will be proud of yourselves.

9. Provision of services


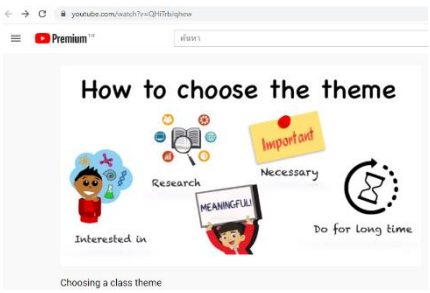
It is about the provision of services. The purpose aims at providing the useful information for the local community needs. You will have opportunities to study the local community problems and needs. Then, you will explore the ways to help the local people have good and useful information in order to help them solve their own problems they are facing. This can help you concern more about local community needs and problems.

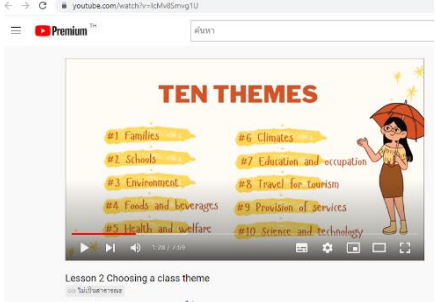
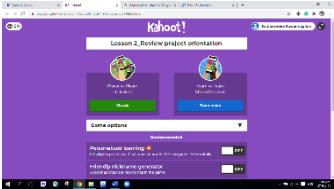
10. Science and technology

It is about science and technology. The purpose aims at studying the science and new technology that could help you manage your life to be ready for the current and future world. You will have opportunities to study science and new technology to help you understand the nature better and know the new technology that could help you learn things more effectively, facilitate your own life following your own needs, and solve the problems by using the new innovations you have explored.

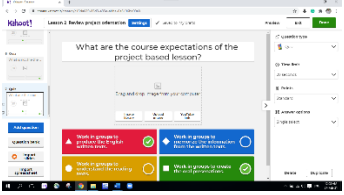
Instructional procedures

Instructional Stage	Instructional Procedures	
	Teacher	Learners
Pre-class Activity	(Create activities about vocabulary learning about how to choose a theme on Wordwall. Then, give the students the links for activities in Group Line.)	(Do the two vocabulary learning activities about how to choose a theme on Wordwall)
	(Ask the students to study the handout about useful expressions to give the reasons provided by the teacher and do the Giving the reasons worksheet to check what the students have learned)	(Study the useful expressions to give the reasons and do the Giving the reasons worksheet)


Instructional Stage	Instructional Procedures	
	Teacher	Learners
		
	<p>(Post the video of choosing a class theme on YouTube:</p> <p>https://rb.gy/wekj2f</p> <p>and ask the students to choose a class theme)</p> 	<p>(Watch the video and choose the class theme.</p> <p>While watching the video, the students are asked to take notes following the guided questions provided by the teacher to check whether they watched the video and to prepare them for the class activities)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
		(Choose the class theme through Google Form)
Warm-up (10 Minutes)	(Greetings)	(Greetings)
	<p>(Review what they have learned last period)</p> <ul style="list-style-type: none"> Please access the Kahoot website and do the multiple-choice test to review what you have learned about the phases and activities of the project-based lesson, course expectations, and the students' roles (https://rb.gy/remznc) 	(Do the multiple-choice test about the phases and activities of the project-based lesson, the course expectations, and the students' role through Kahoot website)

Instructional Stage	Instructional Procedures	
	Teacher	Learners

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	 <ul style="list-style-type: none"> - Great. Now, all of you have the big picture of the project-based lesson. 	
	<p>(Inform the learning outcomes)</p> <ul style="list-style-type: none"> - Next, we will start our project today. Our missions today are to choose the class theme and form groups for the project during the both activities you will be required to give the reasons for the theme you chose. 	<p>(Listen and ask the questions if they have confusion)</p>
<p>Main Activities (40 Minutes)</p>	<p>(Ask the students to share their experience related to the presented themes they watched on YouTube in the pre-class activity)</p> <ul style="list-style-type: none"> - Please answer the question. 	<p>(Identify both the themes they are familiar with and the themes they are unfamiliar with.)</p> <ul style="list-style-type: none"> - Various answers.

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> • Can anyone identify which theme you are familiar with or unfamiliar with? 	
	<p>(Choose some students randomly to explain the reasons why they chose the theme by using the Wheel Decide Application (https://wheeldecide.com/)</p> <ul style="list-style-type: none"> - Great. You have various reasons for the themes. you are interested in. 	(Explain the reasons why they chose the theme)
	(Inform the class theme the students voted for)	
	<p>(Ask the students to form groups)</p> <ul style="list-style-type: none"> - To move to the next step of our project, it is time to form groups for our project. 	(Form groups of 6-7)

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> - In the project, we need six groups. So, you need to form groups of 6-7. 	
Conclusion (10 Minutes)	<p>(Ask the students to summarize what they have learned throughout the lesson.)</p> <ul style="list-style-type: none"> - Before ending the lesson today, please summarize what you have learned by asking the students to identify the ways about how to choose the theme into Menti application (www.menti.com) 	<p>(Type the ways about how to choose the theme into Menti application)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	 <p>The screenshot shows a web browser window with the URL 'menti.com'. The page displays the Mentimeter logo and a poll question: 'How can we choose the theme?'. Below the question is a text input field with a character count of 250 and a 'Submit' button. The background features a watermark of a traditional Thai sunburst emblem.</p>	
	<p>(Ask the students to summarize the useful expressions used to give the reasons they have learned)</p>	<p>(Identify the useful expressions used to give the reasons they have learned)</p>
	<p>(Dismiss the class)</p> <p>- Now, we have our class theme and form the groups based on our common interests of the sub-themes. It is such a good progress for our project.</p>	



Name: _____



Giving the reasons

Please identify the phrases and sentences used for giving the reasons.



APPENDIX J

Lesson Plan 3

Lesson 3: Exploring the problems/current situations

Time: 90minutes

Phase 1: Launching the project

Learning Outcome (Project)

At the end of the lesson, students will be able **to identify the problems or current situations about the theme.**

Learning Outcome of Language Aspect:

At the end of the lesson, students will be able **to describe the problems or the current situations about the theme.**

Materials

- Padlet application: <https://padlet.com/lotusymadee/lgo6t5ecj4c5rdcd>
- Google Slides จุฬาลงกรณ์มหาวิทยาลัย
- Google Drive: <https://rb.gy/27kjdd> UNIVERSITY
- Zoom Application

Content

Language content

- Vocabulary related to how to describe the problems

too much garbage	difficult content	exam stress	lack of facilitators	bullying problems among students
arguments	mental health problems	increased heat	drought	increased pollution

Expressions to describe the problems

There is.../ There are ...

There isn't.../ There aren't ...

Subject + have / has ...

Subject + is / are ...

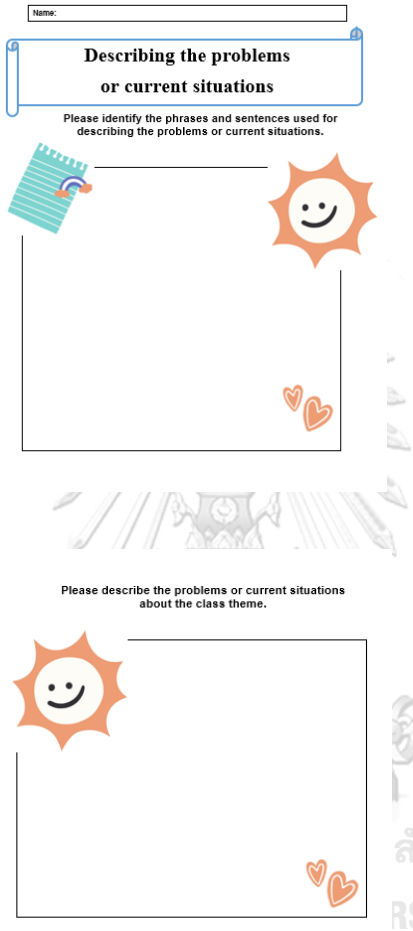
Subject + can't ...

Assessment:

1. Students identify the problems or current situations about the theme.
2. Students describe the problems or the current situations about the theme.

Instructional procedures


Instructional Stage	Instructional Procedures	
	Teacher	Learners
Pre-class Activity	(Create activities about vocabulary learning about how to describe the problems on Wordwall. Then, give the students the links for activities in Group Line.)	(Do the two vocabulary learning activities about how to describe the problems on Wordwall)
	(Ask the students to study the handout about the useful expressions to describe the problems and do the Describing the problems or current situations worksheet to check what the students have learned)	(Study the useful expressions to describe the problems and do the Describing the problems or current situations worksheet)

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<div data-bbox="571 533 986 1460"> <p>Name: _____</p> <p>Describing the problems or current situations</p> <p>Please identify the phrases and sentences used for describing the problems or current situations.</p>  <p>Please describe the problems or current situations about the class theme.</p> </div>	
	<p>(Ask the students explore the current problems or situations related to the theme)</p>	<p>(Explore the problems or current situations related to the chosen theme by using the various learning resources that they have</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
		learned from the previous period)
	(Ask each group to create a presentation about the current problems and situations they have explored on Google Slides and upload it on Google Drive)	(Create presentations about the current problems and situations they have explored in Google Slides and upload them on Google Drive https://rb.gy/27kjdd)
Warm-up (10 Minutes)	(Greetings)	(Greetings)
	(Review what they have learned last period.) - Can anyone identify our class theme for the project?	(Identify the class theme)
	- Can anyone identify the groups in our class for the project?	(Identify the group names)
	(Inform the learning outcome)	(Listen and ask the questions if they have confusion)

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> - Great. Now, we have the class theme and groups for the project. - Next, we will move the next activities in phase 1 today. Our missions today are to identify the problems or current situations about the theme and describe the situations about the problems or current situations about the theme. 	
<p>Main Activities (40 Minutes)</p>	<p>(Ask each group to share the problems or current situations about the theme with the class through Google Slides)</p> <ul style="list-style-type: none"> - Great. Your sharing is very useful for the project because everyone knows the problems and what is happening about the theme. 	<p>(Share the problems or current situations about the theme with the class through Google Slides)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>(Ask the students to discuss with the whole class to choose one of problems each group presented that they are interested in and want to learn more to explore the creative solutions)</p>	<p>(Discuss with the whole class to choose one problem that there are multiple appropriate reasons why they need to care and solve the problem)</p>
	<p>(Ask each to discuss the effects of the problems or current situations about the theme they have chosen towards their local community and country if the problems or current situation have been occurring)</p>	<p>(Discuss the effects of the chosen problem about the theme towards the community and country)</p>
	<p>(Ask each group to share the effects of the chosen problem towards the local community and country and explain the reason with the class through the Padlet:</p>	<p>(Share the effects of the chosen problem on the Padlet and explain the reasons)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>https://padlet.com/lotusymadee/1go6t5ecj4c5rdcd)</p> 	
<p>Conclusion (10 Minutes)</p>	<p>(Summarize the problems or current situations about theme)</p> <ul style="list-style-type: none"> - Please identify and describe the problems or current situations about the theme that you have found during the lessons. 	<p>(Identify and describe the problems and current situations about the theme)</p>
	<p>(Ask the students to summarize the useful expressions used to describe the problems or the current situations they have learned)</p>	<p>(Identify the useful expressions used to describe the problems or the current situations they have learned)</p>
	<p>(Dismiss the class)</p> <ul style="list-style-type: none"> - Great. Now, each group knows the problems and current 	

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<p>situations about the theme and how important they are towards the community and country. It is such good progress for our project.</p>	



Name: _____

Describing the problems or current situations

Please identify the phrases and sentences used for
describing the problems or current situations.



**Please describe the problems or current situations
about the class theme.**



APPENDIX K

Lesson Plan 4

Lesson 4: Creating a driving a question/proposing the group products

Phase 1: Launching the project

Time: 90 minutes

Learning Outcomes (Project)

At the end of the lesson, students will be able **to propose the group products based on group agreement.**

Learning Outcomes of Language Aspect:

At the end of the lesson, students will be able **to discuss the group products.**

Materials:

- The video about the products of the projects on YouTube: <https://rb.gy/w6kiod>
- Wheel Decide Application: <https://wheeldecide.com/>
- Padlet Application: <https://padlet.com/lotusymadee/oye5tyhtfwmtxia>
- Zoom Application

Assessment:

1. Students propose the final group product based on group agreement.
2. Students discuss the group products.

Content

Content

Language content

- Vocabulary related to the project products

oral presentation	storytelling	public event	brochure	research report
poster	book review	proposal	media	planning product

Expressions to discuss in group

1. Asking for an opinion

- What do you think about...?
- What's your opinion about...?
- How do you feel about...?

2. Asking for an explanation

- Could you explain about ...?
- What do you mean by that?
- Excuse me, did you say that...?

3. Giving your opinion

- In my opinion/view...
- I think / feel / believe that...
- The point I'm trying to make is...

4. Giving an explanation

- The reason for this is...
- The main point is...
- Let me explain...

5. Agreeing with an opinion

- I agree.
- I think so.
- That's just my feeling / opinion.

6. Disagreeing with an opinion

- I disagree with you, I'm afraid.
- I'm sorry I can't agree.
- I don't think so.

Project-based learning content

The products of the projects (Larmer et al., 2015)

There are various types of products as follows.

1. Presentations

Presentation includes any kind of live performance:

- **Oral presentation**

The oral presentation is known as public speaking or simply presentations that

individuals or groups present to an audience on a specific topic. The oral presentation aims to educate, inform, entertain, and present interesting topics. The oral presentations are seen within classrooms and workplaces.

- **Storytelling**

Storytelling is telling a story that a speaker presents vivid, multi-sensory

images, actions, characters, and events to motivate the listeners to see what the characters in the story see and feel how the characters in the story feel.

- **Public events**

A public event is an event like a class and workshop that anyone can sign up

to attend. The students, teachers, school, and community could be the holders of the public events. The guests may be students from other classes, teachers, local community members, and experts in the field.

2. Written products

Written products include some traditional kinds of writing, but in a project the writing is for a particular audience and purpose:

- **Brochures**

A brochure is an informative paper document that provides information on a

single topic. It can be folded into a template, pamphlet or leaflet.

- **Research reports**

A research report is a reliable source that writes about methodology or how to

collect and analyze the information, results of the study, and discussion.

- **Book reviews**

A book review is a review that includes a short summary of the book, background information about the author and topic, and an evaluation of the content. The book review is assigned to allow students to express their opinions about the author's ideas in the book. Moreover, they need to analyze and criticize the author's ideas, writing techniques and quality.

- **Posters**

A poster is a large sheet that is placed either on a public space to promote

something

3. Media and technology

Media and technology products include all old and new media:

- **Audio recordings**

An audio recording is an electronic recording of sound.

- **Videos**

A video is a program, movie, or other visual media product featuring moving

images, with or without audio, that is recorded and saved digitally.

- **Websites**

A website is a collection of web pages and related content that is identified by

a common domain name and published on at least one web server, for example, google.com, amazon.com, and wikipedia.org.

4. Planning products

Planning products include a wide range of proposals or plans for doing something, but not the actual construction:

- **Proposals**

A proposal is a plan or an idea which is suggested for people to think about

and decide on. The proposal includes sections such as title, start and end dates, objectives and goals, requirements, and a proposed solution.

- **Timelines**

A timeline is a list of well-organized events in the order. It is a line with dates,

events or actions. The key elements of a timeline consist of tasks, dates of tasks, duration of tasks.

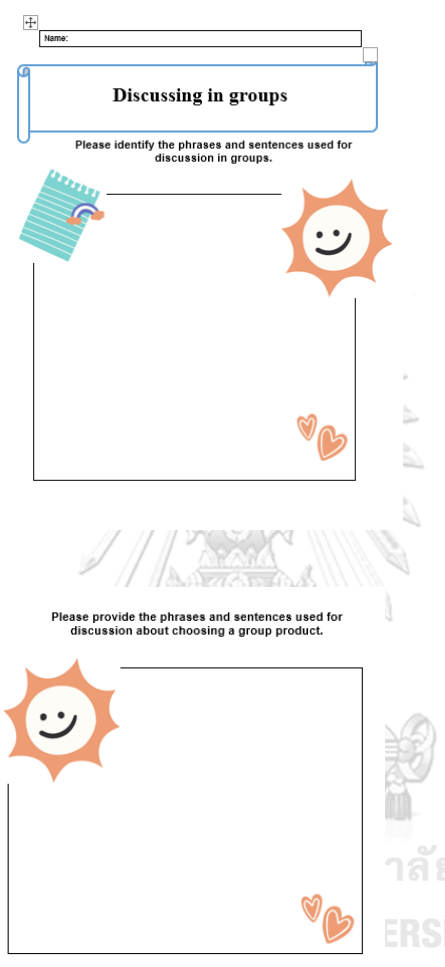
- **Designs**

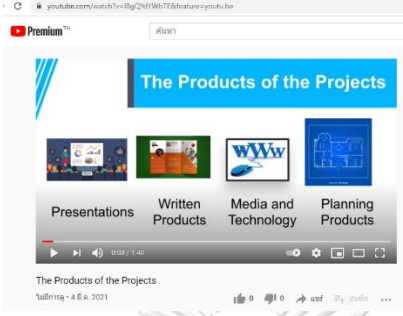
A design is a plan, model, or drawing produced to show the look and function

or working of buildings and other objects before it is built or made.

Instructional procedures

Instructional Stage	Instructional Procedures	
	Teacher	Learners
Pre-class Activity	(Create activities about vocabulary learning about the project products on Wordwall. Then, give the students the links for activities in Group Line.)	(Do the two vocabulary learning activities about the project products on Wordwall)
	(Ask the students to study the handout about the useful expressions to discuss in groups and do the Discussing in groups worksheet to check what the students have learned)	(Study the useful expressions to discuss in groups and do the Discussing in groups worksheet)

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	 <p>The screenshot shows a digital worksheet with a 'Name:' field at the top. Below it is a blue-bordered box titled 'Discussing in groups' containing the instruction: 'Please identify the phrases and sentences used for discussion in groups.' This is followed by a writing area decorated with a notepad icon, a sun, and hearts. Below this is another writing area with the instruction: 'Please provide the phrases and sentences used for discussion about choosing a group product.' This area is also decorated with a sun and hearts. A watermark for 'มหาวิทยาลัย' (University) is visible in the background.</p>	
	<p>(Post the video about the various products that the students can do for the projects on YouTube: https://rb.gy/w6kiod</p>	<p>(Watch the video and prepare the information for the discuss session to define the final group product and take notes)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
		
Warm-up (10 Minutes)	(Greetings)	(Greetings)
	(Review what they have learned last period.) - Please answer the following questions. <ul style="list-style-type: none"> • Can anyone identify our class theme for the project? 	(Identify the class theme)
	- Can anyone identify the group activities you did last period?	(Discuss the reasons why they chose the sub-theme)
	(Inform the learning outcome) - Great. Now, we have our class theme and the groups for the project.	(Listen and ask the questions if they have confusion)

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> - Next, we will move the next activities in phase 1 today. Our missions today are to propose the final group product based on group agreement and discuss the group products. 	
<p>Main Activities</p> <p>(40 Minutes)</p>	<p>(Ask the students to create a driving question)</p> <ul style="list-style-type: none"> - We need to review the chosen problem from the previous less. <ul style="list-style-type: none"> • Can anyone identify the chosen problem? - Great. Now, we know our problem. Next, we need the explore the solutions for our problem. So, we need a driving question to guide us to explore the answers or solutions. 	<p>(Create the classroom driving question for the project)</p> <p>(We did not understand the difficult content in the school subjects)</p> <p>(Create the class driving questions and vote the class driving question)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> - To create a driving question, we need to consider our problem first. Next, you need to think about creating a question that encourages you to explore the solutions for the problem. When we create a driving question, we should start with “How” and use the subject “we” to make it our class driving question. - Let’s share your ideas and voted them for our class driving question. 	
	<p>(Break each group into the breaking rooms to discuss to propose the final group product for the project by using the knowledge that they have learned from the video about the products of the projects)</p>	<p>(Discuss in groups to propose the final group products)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
	<ul style="list-style-type: none"> - I will break each group into the breaking rooms to discuss to propose the final group product. - Moreover, each group needs to prepare to share your group ideas to the class after the time is over. 	
	<p>(Ask the students to share what each group discussed the final group products and give the reasons why they produce the product)</p> <p>(Ask to students to choose the final product in the project and how to investigate the information to produce the product)</p>	<p>(Share what each group discussed choosing the final group product and explain the reasons why they choose to produce the product)</p> <p>(Choose the final product for the project and how to investigate the information to produce the product)</p>

Instructional Stage	Instructional Procedures	
	Teacher	Learners
Conclusion (10 Minutes)	<p>(Ask the students to summarize what they have learned throughout the lesson)</p> <ul style="list-style-type: none"> - Before ending the lesson today, can anyone identify the final product for the project? 	(Identify the final product for the project)
	<p>(Ask the students to summarize the useful expressions used to discuss in groups they have learned)</p>	(Identify the useful expressions used to discuss in groups they have learned)
	<p>(Dismiss the class)</p> <ul style="list-style-type: none"> - Great. Now, each group has a final group product already. It is such good progress for our project. 	



Name: _____

Discussing in groups

Please identify the phrases and sentences used for discussion in groups.



Please provide the phrases and sentences used for discussion about choosing a group product.



APPENDIX L

Course Syllabus

Course Title	Learning English through a Project
Type of Course	Additional Course
Semester	Second Semester
Academic Year	2021
Length of the Course	14 weeks (90 minutes per week)

The aims of this course are to produce an English project product and share it with the audience both inside and outside the school. During the course, students will choose a theme for the project based on their interests, work in groups to explore problems related to the chosen theme, create a driving question, propose a group product, learn necessary knowledge and skills to help them complete the project, plan for their project work, collect the data, analyze the data, develop the project product, present their project product to the audience, and give reflection on the learning process.

Course Outcomes

By the end of the course,

1. students will be able to produce a project product based on the chosen theme.
2. students will be able to present a project product in English.

Learning Content

Table 8 Learning Content

Week	Topic
1	Project orientation
2	Choosing a class theme
3	Exploring the problems/current situations
4	Creating a driving question/proposing the group product
5	Survey methods
6	Creating survey questions
7	Creating an online survey tool
8	Planning for the project work
9	Collecting the data
10	Analyzing the data
12	Creating a poster
13	Giving feedback
14	Giving the critical reflection

APPENDIX M

Poster Rubric

Table 9 Poster Rubric

Categories	4	3	2	1
Title	Title is large enough to be able to read easily. It describes the content of the poster well and in creative ways.	Title is large enough to be able to read easily. It describes the content of the poster well.	The tile is small but it can be read. It describes the content of the poster well.	The title is too small and it is difficult to read. It does not describe the content of the poster well.
Content	All the content displayed in the poster provides clear, accurate and relevant information to the title.	All the content displayed in the poster provides unclear information but accurate and relevant information to the title.	Some content displayed in the poster provides unclear information but provides relevant information to the title.	Most of the content displayed in the poster provides unclear information inaccurate and irrelevant information to the title.
Grammar	There are no grammatical/mechanical mistakes on the poster. Capitalization and punctuation are correct throughout the poster.	There are 1-2 grammatical/mechanical mistakes on the poster. There is 1 error in capitalization or punctuation.	There are 3-4 grammatical/mechanical mistakes on the poster. There are 2 errors in capitalization or punctuation.	There are more than 4 grammatical/mechanical mistakes on the poster. There are more than 2 errors in capitalization or punctuation.
Graphics-relevance	All graphics are related to the topic and make it easier to understand. All borrowed graphics have a source citation.	All graphics are related to the topic and most make it easier to understand. Some borrowed graphics have a source citation.	All graphics relate to the topic. One or two borrowed graphics have a source citation.	Graphics do not relate to the topic OR several borrowed graphics do not have source citation.

Categories	4	3	2	1
Text	The text font is neat and easy to read. The text font is large enough to read easily. All text is organized into sections and labeled with appropriate section heading. There is not too much text in the poster.	The text font is neat and easy to read. The text font is large enough to read easily. Some text is organized into sections and labeled with section headings.	The text font is neat and easy to read. The text font is not large enough to read easily. Some text is not organized into sections and labeled with the section headings. There is too much text in the poster	The text font is readable but too small. There is too much text in the poster. Some text is not organized into sections and labeled with the headings.
Layout/format	Sections of the poster are separated from one another. White space is used well. Use a clear layout that help readers read the poster easily.	Sections of the poster are separated from one another but there is less white space in the poster.	Some sections of the poster are separated from one another. The layout is not clear so it is difficult to follow the flow of reading.	Sections of the poster are not separated from one another. White space is not used well. The layout is not clear so it is difficult to follow the flow of reading.
Color selection	Text color and background color are in high contrast for easy reading. Background color does not obscure or dim text.	Text color and background color are in medium contrast. Some parts are easy to read. Some parts are difficult to read.	Text color and background color are low-contrast color. It is difficult to read.	Text color and background color are low-contrast color. Background color dims text. It is absolutely difficult to read.

Resource:

<http://rubistar.4teachers.org/>

<https://libguides.usd.edu/c.php?g=753097&p=5394204>

Poster Evaluation

7-11 means Need to improve

12-16 means Low quality of a poster

17-22	means	Medium quality of a poster
23-28	means	High quality of a poster



VITA

NAME Suphawadee Suwannaphim

DATE OF BIRTH 25 October 1991

PLACE OF BIRTH Udon Thani



จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY