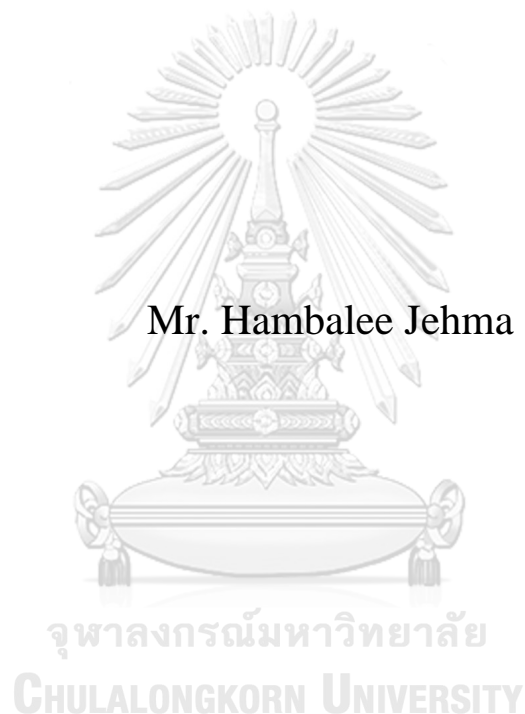


VIRTUAL LEARNING PROTOTYPE IN FLIPPED
CLASSROOM FOR DEVELOPING ENGLISH LISTENING
AND READING SKILLS OF UNDERGRADUATES IN THAI
HIGHER EDUCATION INSTITUTIONS



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A Dissertation Submitted in Partial Fulfillment of the Requirements
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ต้นแบบการเรียนรู้โลกเสมือนในชั้นเรียนกลับทิศเพื่อพัฒนาทักษะการฟังและการอ่านภาษาอังกฤษ
ของนิสิตนักศึกษาในสถาบันอุดมศึกษาไทย



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Thesis Title	VIRTUAL LEARNING PROTOTYPE IN FLIPPED CLASSROOM FOR DEVELOPING ENGLISH LISTENING AND READING SKILLS OF UNDERGRADUATES IN THAI HIGHER EDUCATION INSTITUTIONS
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การวิจัยและพัฒนาครั้งนี้มีวัตถุประสงค์เพื่อ (1) เพื่อสำรวจและวิเคราะห์ระดับทักษะฟัง-อ่านภาษาอังกฤษของนิสิต
 นักศึกษาระดับปริญญาตรีในสถาบันอุดมศึกษาไทย (2) เพื่อพัฒนาด้านแบบการเรียนรู้โลกเสมือนในชั้นเรียนกลับทิศเพื่อพัฒนาทักษะฟัง-
 อ่าน ภาษาอังกฤษของนิสิตนักศึกษาระดับปริญญาตรี (3) เพื่อประเมินประสิทธิภาพของต้นแบบการเรียนรู้โลกเสมือนในชั้นเรียนกลับทิศ
 เพื่อพัฒนาทักษะฟัง-อ่าน ภาษาอังกฤษของนิสิตนักศึกษาระดับปริญญาตรี. โดยมีระเบียบวิธีวิจัยดังนี้ กลุ่มตัวอย่างในการศึกษาวิจัย
 ประกอบด้วย นิสิตนักศึกษารวม 160 คนที่เลือกโดยวิธีการเลือกสุ่มแบบเฉพาะเจาะจง แบ่งออกเป็น 40 คน จากมหาวิทยาลัยในสี่
 ภูมิภาค คือ ภาคเหนือ ภาคอีสาน ภาคใต้ และภาคกลาง. นักศึกษาระดับปริญญาตรีอีกจำนวน 30 คน ที่ลงทะเบียนเรียนในรายวิชา
 ภาษาอังกฤษ ซึ่งเป็นวิชาบังคับในหมวดรายวิชาศึกษาทั่วไป ของมหาวิทยาลัยสงขลานครินทร์ เป็นกลุ่มตัวอย่างของการทดลอง เครื่องมือที่
 ใช้ในการศึกษาวิจัยประกอบด้วย แบบทดสอบวัดระดับภาษาอังกฤษโทอิกจริง (TOEIC) เครื่องมือเกณฑ์วัดระดับทักษะการฟัง
 ภาษาอังกฤษ เครื่องมือเกณฑ์วัดระดับทักษะการอ่านภาษาอังกฤษ และ แบบกิจกรรมในโลกเสมือน ข้อมูลในการศึกษาวิจัยได้ถูกนำมา
 วิเคราะห์ ด้วย ANOVA และ t-Test

ผลการวิจัยพบว่า

1. ทักษะภาษาอังกฤษฟัง-อ่าน ของนิสิตนักศึกษาระดับปริญญาตรีในสถาบันอุดมศึกษาไทยอยู่ในระดับที่ต่ำ โดยมีค่าเฉลี่ย
 ของคะแนนรวมจากแบบทดสอบโทอิก 342.55 คะแนน คะแนนต่ำสุด 165 และคะแนนสูงสุด 495 จากคะแนนเต็ม 990 ซึ่งถือว่า
 อยู่ในระดับ ความสามารถเบื้องต้น (Elementary Proficiency) (คะแนนช่วง 255-400) และต่ำกว่าเกณฑ์คะแนนที่
 มหาวิทยาลัยกำหนด นิสิตนักศึกษจะต้องมีผลวัดระดับภาษาอังกฤษไม่ต่ำกว่า คะแนนรวม 450 คะแนน
2. ต้นแบบโลกเสมือนซึ่งประกอบด้วย แผนการเรียนรู้ 10 บทเรียน ที่ถูกออกแบบโดยการนำแพลตฟอร์มโลกเสมือน ทั้ง
 สาม แพลตฟอร์ม คือ เซคันด์ไลฟ์ (Second Life) วีอาร์แชท (VRChat) และ คลาสสตาร์ท (ClassStart) ในการเรียนรู้ใน
 ชั้นเรียนกลับทิศนั้น มีประโยชน์ในการพัฒนาทักษะภาษาอังกฤษการฟัง-อ่าน ของนิสิตนักศึกษา
3. ผลของคะแนนวัดระดับภาษาอังกฤษโทอิกก่อน-หลัง ของนักศึกษาหลังจากผ่านการทดลองเรียนรู้ตามต้นแบบที่
 พัฒนาขึ้นนั้น พบว่ามีพัฒนาการที่สูงขึ้น โดยคะแนนรวมทั้งทักษะภาษาอังกฤษการฟัง และการอ่านหลัง (post-test) สูงกว่าคะแนน
 คะแนนรวมทั้งทักษะภาษาอังกฤษการฟัง และการอ่านก่อน (pre-test).

สาขาวิชา อุดมศึกษา
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KEYWORD: FLIPPED CLASSROOM, ENGLISH RECEPTIVE SKILLS, VIRTUAL PLATFORMS

Hambalee Jehma : VIRTUAL LEARNING PROTOTYPE IN FLIPPED CLASSROOM FOR DEVELOPING ENGLISH LISTENING AND READING SKILLS OF UNDERGRADUATES IN THAI HIGHER EDUCATION INSTITUTIONS. Advisor: Assoc. Prof. Apipa Prachyapruit, Ph.D. Co-advisor: Prof. Emeritus Pateep Methakunavudhi, Ph.D.

The purpose of this research and development study was (1) to explore and analyze the level of English receptive skills of undergraduates studying in Thai higher education institutions, (2) to develop the prototype of virtual learning as implemented in flipped classrooms in improving Thai undergraduates' English receptive skills, and (3) to evaluate the effectiveness of the developed prototype of virtual learning as a tool implemented in flipped classrooms in developing Thai undergraduates' English receptive skills. The research methodology was explained as follows: the samples of this study were 160 undergraduate students, and 40 students from four regions of Thailand, namely North, Northeast, Southern, and Central were purposively selected. The other 30 potential undergraduates studying English as a required general education subject at Prince of Songkla University were samples for the experiment. The actual TOEIC test, listening rubrics, reading rubrics, and virtual tasks have been employed as research instruments. The data has been analyzed by ANOVA and t-Test.

The results of the study can be summarized as follows:

1. Thai undergraduate students had poor English receptive skills as the TOEIC total mean score was 342.55, the lowest was 165, and the highest was 495 out of 990. These can be considered at the level of Elementary Proficiency (255-400) which was lower than the university requirement of not less than 450 total TOEIC scores.

2. The designed prototype included of 10 lesson plans applied the three virtual platforms, namely Second Life, VRChat, and the ClassStart taught in flipped classrooms were beneficial for developing students' English receptive skills.

3. Considering the overall development of students' English receptive skills both listening and reading from their pre and post-test scores of the total English TOEIC scores after applying the prototype in teaching and learning, the results showed that the students had significant development of their English receptive skills both listening and reading as their total English TOEIC scores from the post-test were higher than that of their pre-test.

Field of Study: Higher Education
Academic Year: 2020

Student's Signature
Advisor's Signature
Co-advisor's Signature

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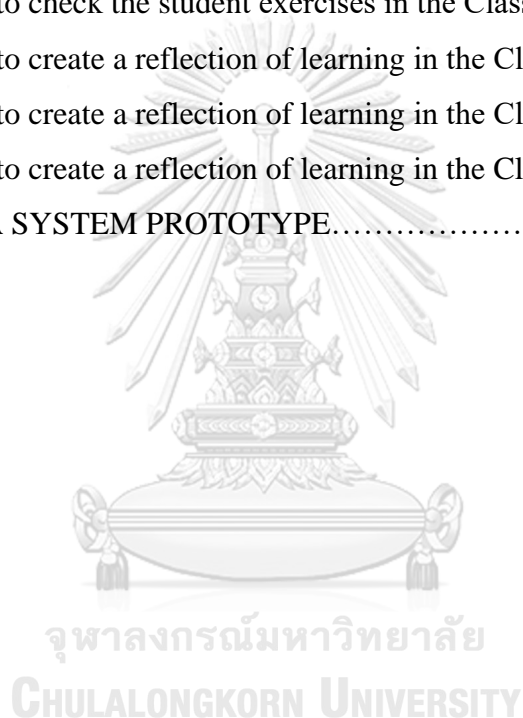
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CHAPTER I

INTRODUCTION

Rationale

English is widely regarded as a global or international language, and this undoubtedly implies that there is a need for people to understand each other's English (Jehma & Phoocharoensil, 2014). Therefore, there is no exception for Thailand. As Thai people are proud that they have never been colonized, they are proud of being Thai and using Thai as a mother tongue, Thais' level of English proficiency is low compared with many countries in Asia (Wiriyachitra, 2002). Though a great change of Thai curriculum concerning the English language learning to be started at the upper elementary level was launched in 1960 (Khamkhien, 2010) and Thai government pushed a substantial effort to promote any teaching methodology to improve Thai students' level of English proficiency, especially the English subjects taught in higher education level which is a part of the bachelor degree curriculum of General Education subjects requirement (Khamkhien, 2006), the failure of this effort were very obvious as mentioned in many studies by Bolton (2008) and Wiriyachitra (2001), that the scores of two international standardized tests: TOEFL and TOEIC, Thai test takers' scores were significantly low, compared to those of Southeast Asian countries. As a result, this problematic phenomenon is central to language pedagogy (Khamkhien, 2010).

Since the information and communication technology is transforming the nature of how work is conducted and the meaning of social relationships. Decentralized decision-making, information sharing, teamwork and innovation are key in today's enterprises. No longer can students look forward to middle class success in the conduct of manual labor or use of routine skills - work that can be accomplished by machines. Rather, whether a technician or a professional person, success lies in being able to communicate, share, and use information to solve complex problems, in being able to adapt and innovate in response to new demands and changing circumstances, in being able to marshal and expand the power of technology to create new knowledge and expand human capacity and productivity

(Rumble et al., 2012). So that the 21st century skills needed for the new era graduates have been discussed. To be more specific, one of the most important 21st century skills needed for nowadays students or graduates is the skill of communication. This skill is mentioned from time to time by the company especially the English language communication skills.

There are several skills that firm managers feel their current workers do not possess at a satisfactory level. For instance, at least half of all firms rated the following skills of their local skilled technicians as poor or extremely poor English, information technology (IT), numerical skills, and creativity/innovation skills. English proficiency and IT skills have in fact worsened since 2004. In general, the firms are much more positive about the quality of their professional staff, although two-thirds of them believe local professionals are not proficient in English.

Table 1 Majority of Employer Respondents View Reading Comprehension and English Language as "very important" Basic Skills for Job Success for New Workforce.

Two-Year College Graduates			Four-Year College Graduates		
Rank	Basic Knowledge/Skills		Rank	Basic Knowledge/Skills	
1	Reading Comprehension ...	71.6%	1	Writing in English	89.7%
2	English Language	70.6	2	English Language	88.0
3	Writing in English	64.9	3	Reading Comprehension ...	87.0
4	Mathematics	44.0	4	Mathematics	64.2
5	Science	21.2	5	Science	33.4
6	Foreign Languages	14.1	6	Foreign Languages	21.0
7	Government/Economics ...	6.7	7	Government/Economics ...	19.8
8	Humanities/Arts	4.4	8	History/Geography	14.1
9	History/Geography	3.6	9	Humanities/Arts	13.2

Adapted from Casner-Lotto & Barrington (2006)

We can clearly see that for four-year college graduates, the majority of the employer respondents rate Writing in English (89.7 percent), English Language (spoken) (88.0 percent), and Reading Comprehension (in English) (87.0 percent) as "very important" for successful job performance, while almost two-thirds (64.2 percent) rate Mathematics as "very important." One-third (33.4 percent) rate Science

as “very important.” In comparison, less than 20 percent rate the other academic areas, such as Government/Economics (19.8 percent), and History/Geography (14.1 percent), as “very important” Casner-Lotto & Barrington (2006). Similarly, employers’ perspectives on six most important expectation factors they considered when recurring the graduate ranked as communication skills, General knowledge, personality, computer skills, language skills and practical experience. They considered educational background after those six factors. Unemployed graduates considered the main factors for their unemployment as lack of professional experience, practical experience and computer skills, general knowledge, and special knowledge. Employers do not consider professional experience or special knowledge from the graduates. It should be noted that the general knowledge acquisition is a personal strategy of any individual. It is acquired through the resources of the immediate environment and through their time investment. However, there can be differences of the immediate environments and time commitments to other activities that drive an individual away from gaining the optimal quantity of general knowledge. Employed graduates’ ranking is similarly to those of employers. They considered most important factors to get the job as personality, general knowledge, computer skill, language knowledge, practical experiences, and communication skills with the educational background. It shows about employees having much understanding about their employers’ needs. From the faculty members’ view computer skills, language skills, communication skills and educational background are the most important factors for graduates to secure the job in the future (Weligamage & Siengthai, 2003).

However, the failure happened in every single level of education especially language teaching and learning. The graduates who are becoming employees do not fully master the language skills especially English for communication as required by their future employers (Weligamage & Siengthai, 2003). This phenomenon has been being discussed why it repeatedly happened till now. One of the main problems needed to be solved is language teaching time in the classroom is inadequate for the students to master the skills since they are required an outside classroom practice independently (Dickinson, 1995). Even though the language teachers have been struggling in teaching their students to master the skills within a limited time in the

class, the students finally do not fully develop their language skills as fully as expected. Another significant factor negatively affected language development while learning in the classroom is the students' engagement. Numerous literatures consistently point to the need to rethink what is taking place in the classroom. Research shows that students' attention declines substantially and steadily after the first 10 minutes of class and that the average attention span of a student is 15 to 20 minutes at the beginning of class (Hartley & Cameron, 1967). Although students' attention returns in the last few minutes of class, they remember only 20% of the material presented during that time (Hartley & Davies, 1978). Furthermore, passive learning in hourlong lectures often bores students and can deprive them of rich educational experiences.¹⁶ Students can read and learn information on their own, but they need instructors to act as coaches and mentors to stimulate and challenge their thinking, guide them, and encourage their learning and application of the material (Bishop & Verleger, 2013). This can clearly show that this factor cannot be neglected.

To explore the way of getting students mastered in English, the new term of 'flipped classroom' as an active learning has been derived while educators around the world have been exploring if there is any new pedagogy to achieve their students in the subjects. Even in Thailand, the traditional pedagogy of solely giving a lecture has been changed to a newer strategy like integrated or communicative teaching into the classroom especially in teaching language (Wiriyachitra, 2002). The effort, however, was worth less than expected. The new term of 'flipped classroom' has become popular as the availability of the internet supports the media implemented in the approach such as videos and audios be more easily accessible and suit the nowadays generation (Herreid & Schiller, 2013). As the two significant pioneers of this approach, Bergmann and Sams realized the effectiveness of chemistry class contents posted online for the students (Tucker, 2012), the strategy has attracted much interest around the world since most of teachers have been becoming applying this pedagogy into their classroom (Stuntz, 2013). The idea of the 'flipped classroom' is common. Teachers created the video lessons, or any interactive lessons used to be lectured in a class to be available and accessible at home (Tucker, 2012). In other words, it is a busy, collaborative, and social place where extroversion, collaboration, and teamwork

are highly valued (Honeycutt, 2014). The term has been also defined in another educational way. The flipped classroom can be defined as an educational technique that consists of two main parts: interactive group learning activities in the classroom, and direct computer-based individual instruction outside the classroom (Bishop & Verleger, 2013). That is why this teaching methodology can fully support the students to extend their learning and practicing time at home which is outside of the traditional classroom session. They all aspects of instruction can be rethought to best maximize the scarcest learning resource—time (Tucker, 2012). In addition, the flipped classroom is also defined as a teaching methodology that allows educators have more chances to engage with the students actively. Therefore, instructors in the classroom in general assign recorded video lectures as homework, and the time for active learning exercises and direct engagement with students happens in the classroom (2013). The model of this approach can be, therefore, clearly explained in Figure 1.

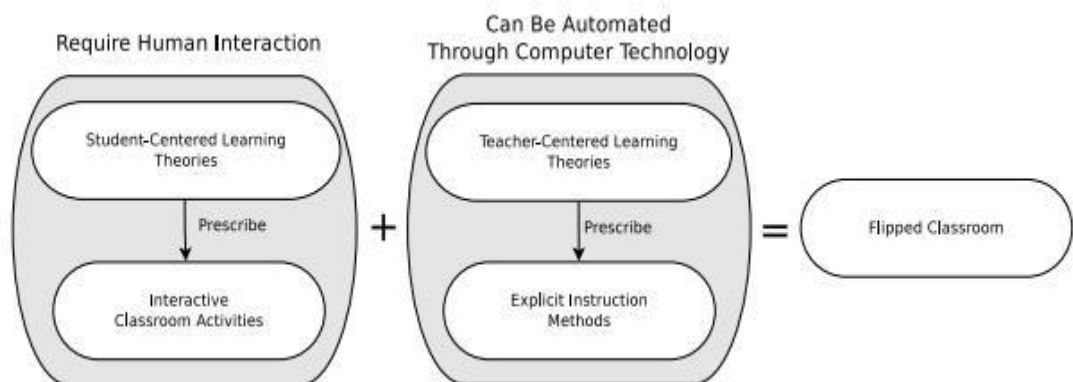


Figure 1 Flipped Class Model (adapted from Bishop, 2013)

Because of this model, most seem to be plausible advantages (e.g., increases time for more engaging instruction), especially for those teaching in hybrid or blended settings consisting of some combination of face to face and online instruction (Milman, 2012), and engaged students make a psychological investment in learning. They try hard to learn what school offers. They take pride not simply in earning the formal indicators of success (grades), but in understanding the material and incorporating or internalizing it in their lives (Newmann, 1992).

However, some drawbacks of applying this approach in teaching and learning have been arisen. To illustrate, students new to the method may be initially resistant because it requires that they do work at home rather than be first exposed to the subject matter in school. Consequently, they may come unprepared to class to participate in the active learning phase of the course. Faculty solve this problem by giving a short quiz either online or in class or by requiring homework that references information that can only be obtained from the outside reading or videos (Herreid & Schiller, 2013). In addition, the homework (readings, videos) must be carefully tailored for the students to prepare them for the in-class activities. For most teachers (and students), videos are the method of choice for delivering the out-of-class portion of the instruction. However, in our survey, teachers said that finding good quality videos is difficult. Faculty are using videos produced by sources such as the Kahn Academy (<http://www.khanacademy.org/>) and BozemanScience (<http://www.bozemanscience.com/science-videos/>) or are creating their own using software programs like Camtasia, PaperShow, and ShowMe or applications on the iPad like Educreations and Explain Everything. They then post these to YouTube, iTunes U, and Podcasts (Vodcasting) or on course management systems like Blackboard or Moodle. The quality of the teacher-created videos is often marginal, however, and creating them requires a significant amount of time (Herreid & Schiller, 2013).

As the pitfalls arisen, another innovation has been implemented in teaching and learning in order that it can hopefully decrease the gap and improve teaching and learning more effectively. The virtual learning or VL has been applied recently. The VL can be defined as a synchronous learning, in which students and instructors are simultaneously present on the system and have instant communications, has a significant place in the distance education process. The use of synchronous conferencing techniques can offer opportunities for social interaction in a virtual classroom space. Virtual Learning or VL sessions are mostly preferred in synchronous distance education systems. VL allows students and instructor from different geographic places to have a class by the help of audio-visual communication via video conferencing software. VL offers extensive meeting set-up features, providing

both moderators and users with effective options for interaction and learning. These environments also have several interactive characteristics. They allow students and instructors to communicate orally, exchange messages through typing, share PowerPoint presentations, transmit video, surf websites together, and more (Engle & Parent-Stevens, 1999; McBrien, Jones & Cheng, 2009; Yang & Liu, 2007).

VL environments consist of several essential components such as Internet access, audio and video devices and server and client software. However, the system and the required equipment do not guarantee to have the desired learning outcomes of the VL activities. Design of VL activities becomes effective if issues such as organization, instructional methods and the motivation of the student and the instructor are taken into accounts. It is important to determine the essential components that have key roles in the design, implementation, and evaluation process of VL practices (Clemens, Starke-Meyerring & Duin, 1999; Moore, 1994).

Frequently focused dimensions of VL sessions, in the up-to-date literature related to the effectiveness of VL sessions, are technical support, learning outcomes, method used, interaction, communication, adaptability and motivation (Engle & Parent-Stevens, 1999; Guichon, 2010; Kidd & Stamatakis, 2006; MacIntosh, 2001; Newman, Martin, McGarry & Cashin, 2009; Ng, 2007; Tipton et al., 2011).

In the study of Tipton et al. (2011), appropriate methods and learning outcomes have been investigated. It is concluded that the integration of the system should be simplified to make students create positive attitudes towards the system. The effect of the system to learning and motivation was investigated in another study. It was emphasized that interaction, communication, feedback provision and scheduling are important to increase the success of the VL sessions (De Vries, 1996). In the study by Engle & Parent-Stevens (1999), effects of technical problems encountered by students on both the method and learning have been investigated, and general evaluations have been made. In the qualitative studies conducted on the VC sessions; motivation, method, learning, scheduling, interaction, and technical issues have been investigated (De Vries, 1996; Guichon, 2010; Ng, 2007; Tipton et al., 2011). On the other hand, in the quantitative studies related to the VL sessions interaction, method, content, success, satisfaction, perception and communication

have been generally investigated (Abdous & Yoshimura, 2010; Engle & Parent-Stevens, 1999; Kidd & Stamatakis, 2006; MacIntosh, 2001; Newman et al., 2009; Sims, 2003).

Some of the virtual classrooms on the market today are Elluminate, Adobe Connect, Webex, Centra, and Horizon Wimba. Freeware versions of the virtual classroom include DimDim and Wiziq. The interactive nature of the virtual classroom addresses the main challenges found in distance education, namely student involvement. Advantageously, the virtual classroom can be used in online and blended instructional delivery. With these platforms, participants can talk to each other, view each other through a webcam, use emoticons, and work together in break out rooms. Virtual classrooms are online environments that enable students and instructors to communicate synchronously using audio, video, text chat, interactive whiteboard, application sharing, instant polling etc. These features enable faculty and students to interact as if they were face in a classroom participation (Arbaugh 2000; Webster & Hackley, 1997; Alavi, Wheeler, & Valacich, 1995).

The most recent virtual classroom developed and implemented in teaching and learning is the Second Life (SL). It is an Internet based three-dimensional virtual world, created by San Francisco based company Linden Labs. Originally released in 2003, Second Life has seen a large influx of users over the last few years, now totaling over 16 million registered accounts (Linden Research, 2008). Other similar virtual environments do exist, such as Twinity (Metaversum GmbH, 2009), Active Worlds (ActiveWorlds, 2009) and There (Mekena Technologies, 2009). While these other spaces remain competitors, Second Life still has a strong user base and strong attraction for new users, with some attributing its popularity to the large amount of varying in-world activities (Wagner, 2008). Users interact within Second Life, with objects and other users, through their virtual representation known as an avatar. It is through this avatar that one can customize their own appearance (e.g., give him/herself a new age, gender or even change into a non-human form such as animal), transform their environment by creating virtual objects, communicate, collaborate, and cooperate (Fetscherin and Lattemann, 2008), and view content and travel around in the Second Life environment (The Schome Community, 2007). The "residents" of

Second Life create content and can communicate via text chat or through voice communication. Interactive objects are built by using a scripting language (Linden Script) that is theoretically designed to be simple enough for those with no previous programming experience. This encourages widespread group participation and creativity, the stated goal of Second Life.

Despite the growing interest in this environment and its potential usefulness for various projects, and few limited studies have been reported on how to use it effectively in the classroom especially in teaching and learning English. The following section presents a brief review on the research in using the virtual world for educational purposes.

Research Questions

There are three main research questions according to the problems stated in the previous section:

1. What is the level of English receptive skills of undergraduates' studying in Thai higher education institutions?
2. How to develop the prototype of virtual learning as a tool implemented in flipped classrooms in improving Thai undergraduates' English receptive skills?
3. How effective does the developed prototype of virtual learning implemented in flipped classroom impact on improving Thai undergraduates' English receptive skills?

Objectives

There are three main objectives of this study as follows:

1. To explore and analyze the level of English receptive skills of undergraduates studying in Thai higher education institutions.
2. To develop the prototype of virtual learning as implemented in flipped classrooms in improving Thai undergraduates' English receptive skills.

3. To evaluate the effectiveness of the developed prototype of virtual learning as a tool implemented in flipped classrooms in developing Thai undergraduates' English receptive skills.

Scope of the Study

The population in this study will be the undergraduates studying English as a required General Education subject in autonomous Thai higher education institutions. The required English subject is for those whose English proficiency do not meet the university English standard level. The students who have passed or met the university standard level by having one of standardized tests such as TOEIC, IELTS, or TOEFL can waive the course and they are excluded from this study.

According to the objective no. 1, the actual standardized TOEIC test will be considered as the tool for selecting the undergraduates as samples. Though 21st century communication skills include of four skills, listening, reading, writing, and speaking, which cover its knowledge, skills, and values, attitudes, and ethics, this study will be focusing solely on the English receptive skills including listening and reading skills covering only its knowledge and skills itself. The other skills of writing, speaking and its values, attitudes, and ethics are excluded. Therefore, the English receptive skills will be tested by the actual standardized TOEIC test. The average scores will be a means of selecting the undergraduates studying a required General Education English subject at Prince of Songkhla University. They are purposely selected as samples from different faculties.

The virtual learning platforms such as Second Life, VRChat, and ClassStart were employed since they were easy to use and out of charge.

Significance of the Study

The findings of this study will redound to the benefit of society considering that English plays an important role in both education and business. The greater demand for graduates with the important English language background justifies the need for more effective, advanced technology integrated teaching approaches. Thus, educators or teachers especially English language teachers who apply the recommended approach derived from the results from this study will be able to train students better. The prototype designed will be a valuable tool for the teachers to apply in developing the students' English receptive skills. With the Prototype Manual, teachers can learn how to prepare their lesson plans and the procedures needed to achieve in teaching English receptive skills through virtual learning platforms. Moreover, it is also expected that the students who are learning English receptive skills will reap some benefits from this study as well since they will be able to realize their certain level of English receptive skills and notice the different virtual learning platforms as a mean for them to practice and finally master their English receptive skills at higher level.

Terms and Definitions

There are significant terms and definitions needed to be discussed in this research as follows:

English Receptive Skills

Receptive skills include person's understanding when listening and reading the English authentic texts or resources such as television, music, books, and magazines. You receive the language and decode the meaning to understand the messages in different contexts namely in daily use, businesses, and other professional and the personal world. The English receptive skills will be evaluated by the TOEIC test.

Flipped Learning

The teaching and learning approach in developing students' English receptive skills that has traditionally taken place inside the classroom now take place outside the classroom which will be conducted unlimited time virtually, and vice versa. Students will be joining the flipped learning for developing their English receptive skills via specific virtual platforms both inside and unlimited time outside of the classroom.

Virtual Learning (VL)

A virtual learning is an online learning environment. The environment can be web-based and accessed through a portal or software-based and require a downloadable executable file such as ClassStart, Second Life, and VRChat, which the students can join and interact in flipped learning English receptive skills class.

The VL platforms applied in this study are as follows:

ClassStart

The virtual platform enables teachers and students to connect to each other via computer's microphone to talk in real-time for developing their English skills. Text as well as audio chat are available for communication. It also stores all the data after working on the lessons in the virtual space.

Second Life (SL)

Three-dimensional (3-D) virtual worlds or second life can be considered as 3-D social networks, where people can collaboratively create and edit objects in the virtual world (like a collaborative 3-D wiki space), besides meeting each other and interacting with existing objects. This platform will be applied in teaching English receptive skills as a virtual classroom applying the flipped learning approach for the students mastering English reading skills.

VRChat

VRChat is a multiplayer online VR game launched for some of its game functions without any VR devices. VRChat allows students to have their own image, to design their own rooms, to chat with other players in the square, and to interact with friends or to watch any videos prepared by the teacher. This platform has been applied in teaching English receptive skills as a virtual classroom applying the flipped learning approach for the students mastering English listening skills.

21st Century Communication Skills

A broad set of knowledge, skills, work habits, and character traits that are believed—by educators, school reformers, college professors, employers, and others—to be critically important to success in today’s world, particularly in collegiate programs and contemporary careers and workplaces. English Language, for example, especially the speaking skill is intensively important 21st century communicative skill for college graduates.

Prototype

A typical or preliminary pattern/process of pedagogy in developing English receptive skills, especially learning through a developed virtual learning approach implemented in flipped classrooms. The prototype will be firstly developed by preparing lesson plans and teaching materials for students to practice English receptive skills. All the lessons and teaching materials will be implemented in the virtual classroom platforms.

Undergraduates

The students studying a required General Education English subject taught in autonomous Thai higher education institutions purposively selected, and they have no exemption from a required English proficiency standard level set by the universities unless they have passed the standardized tests such as TOEIC, IELTS, or TOEFL and any other university standardized tests.

Research Conceptual Framework

After reviewing literatures concerning the theories and studies related to this research topic “The Virtual Learning Prototype Implemented in Flipped Classroom for Developing English Receptive Skills of Undergraduates in Thai Higher Education Institutions,” the significant theories and ideas will be analyzed and applied and shown in the following research conceptual framework.



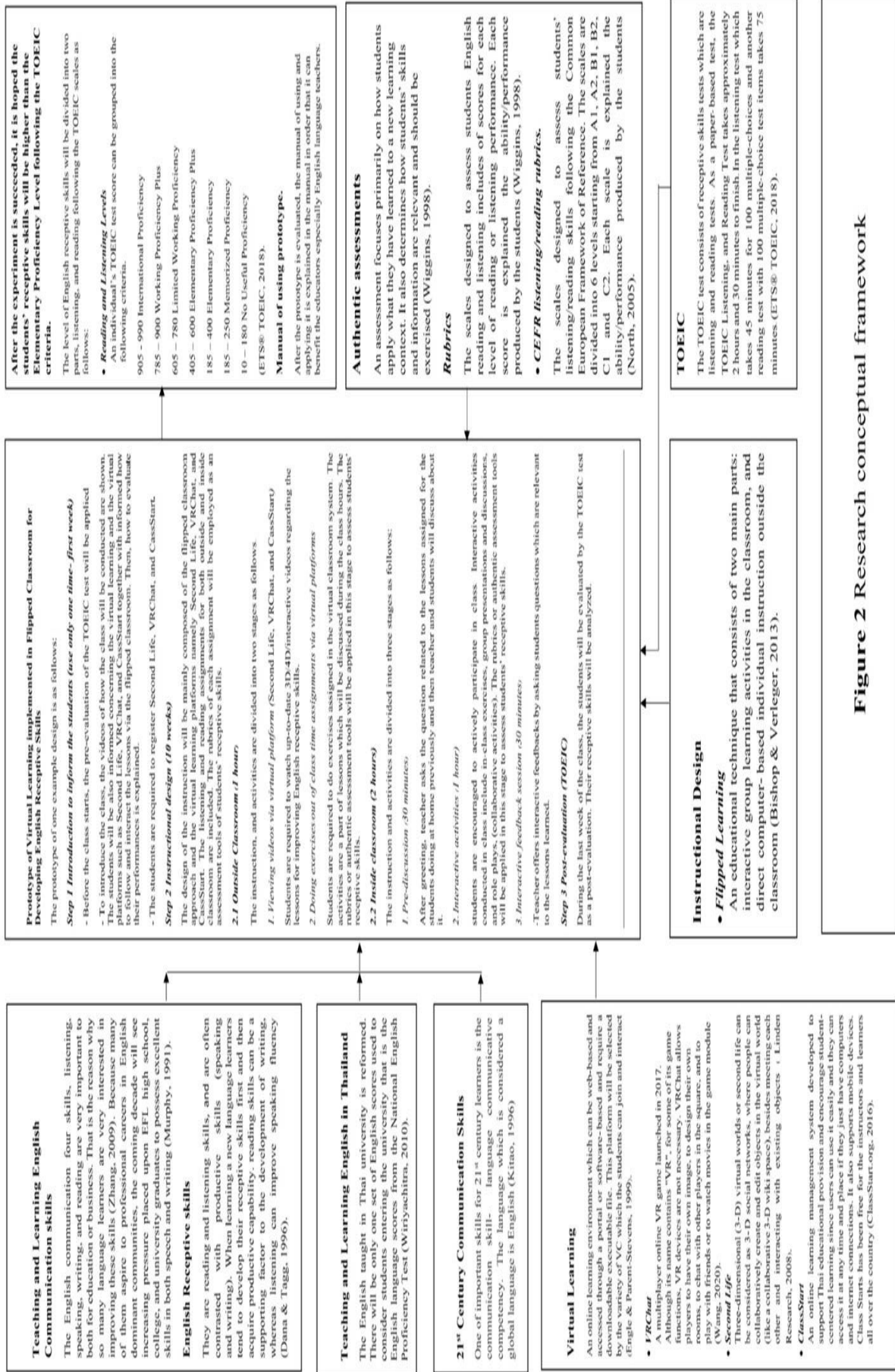


Figure 2 Research conceptual framework

English as a Foreign Language (EFL)

Gass and Selinker (2001) have coined the term English as a Foreign Language or EFL as “the learning of a non-native language in the environment of one’s native language.”

Teaching and Learning English Communication Skills

The English communication four skills, listening, speaking, writing, and reading are particularly important to both for education and business. That is the reason why so many language learners are extremely interested in improving these skills (Zhang, 2009). Because many of them aspire to professional careers in English dominant communities, the coming decade will see increasing pressure placed upon EFL high school, college, and university graduates to possess excellent skills in both speech and writing. EFL teachers commonly turn to widely accept a second language or a foreign language (L2) teaching methods and materials. Though a lot of materials supporting teaching L2 learners developing English communication skills, they seem not to be successful because of many reasons. Some of the students are required to study English in the classroom while being an undergraduate for their degree (Murphy, 1991). In addition to speaking, listening skills, receptive skills should be focused as it plays an important role in communication curricula because high school and college students are expected to enroll in lecture-centered courses during their earliest experiences within mainstream classrooms. Lecture-centered teaching in mainstream classrooms requires that EFL college students function effectively as listeners from the very beginning of their academic careers. Within most classroom settings, listening serves as a primary channel for learning while reading is also vital since the students are required to read for any lessons provided effectively. Moreover, the skill of reading comprehension has been ranked particularly important by the employers who will consider if they employ the graduates in the future (Casner-Lotto & Barrington, 2006). Because little attention is given to the students’ listening abilities in other academic preparatory courses (Chamot, 1983), listening and connections between listening, speaking, and pronunciation emerge as central components of EFL oral communication (Murphy, 1991). To master this skill, not

only the activities concerning listening skill solely, but the speaking tasks are required to be implemented since they both need to be together in order that L2 learners can master English oral communication skills (Zamel & Sheikh Ibrahim, 1985).

English Receptive Skills

It is also known as passive skills, or reading and listening, and are often contrasted with productive skills (speaking and writing). When learning a new language learners tend to develop their receptive skills first and then acquire productive capability. It is a complex relationship between the two as they all play a supporting role with developing other skills. For example, reading skills can be a supporting factor to the development of writing, whereas listening can improve speaking fluency. Developing receptive skills can be particularly challenging especially when communicating with a fluent or native speaker. Although starting a conversation may be done with relative ease, maintaining one poses greater challenges. Most likely learners may not recognize features of connected speech or idiomatic language which may lead to an unsuccessful interaction. Like reading, if the language or grammar is too complicated, it makes the text unintelligible.

The Common European Framework of Reference (CEFR)

The Common European Framework of Reference for Languages: Learning, Teaching, Assessment, abbreviated in English as CEFR or CEF or CEFRL is a guideline used to describe achievements of learners of foreign languages across Europe and, increasingly, in other countries. It was put together by the Council of Europe as the main part of the project "Language Learning for European Citizenship" between 1989 and 1996. Its main aim is to provide a method of learning, teaching, and assessing which applies to all languages in Europe. In November 2001, a European Union Council Resolution recommended using the CEFR to set up systems of validation of language ability. The six reference levels are becoming widely accepted as the European standard for grading an individual's language proficiency.

The Common European Framework divides learners into three broad divisions that can be divided into six levels; for each level, it describes what a learner is supposed to be able to do in reading, listening, speaking, and writing. The following table gives an indication of these levels (North, 2005).

Table 2 CEFR Receptive Skills Rubric (Adapted from North, 2005)

Proficient User (Listening)	C2	Has no difficulty in understanding any kind of spoken language, whether live or broadcast, delivered at fast native speed
	C1	Can understand enough to follow extended speech on abstract and complex topics beyond his/her own field, though he/she may need to confirm occasional details, especially if the accent is unfamiliar. Can recognise a wide range of idiomatic expressions and colloquialisms, appreciating register shifts. Can follow extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly.
Independent User (Listening)	B2	Can understand standard spoken language, live or broadcast, on both familiar and unfamiliar topics normally encountered in personal, social, academic or vocational life. Only extreme background noise, inadequate discourse structure and/or idiomatic usage influence the ability to understand.
		Can understand the main ideas of propositionally and linguistically complex speech on both concrete and abstract topics delivered in a standard dialect, including technical discussions in his/her field of specialisation. Can follow extended speech and complex lines of argument provided the topic is reasonably familiar, and the direction of the talk is sign-posted by explicit markers.
	B1	Can understand straightforward factual information about common everyday or job related topics, identifying both general messages and specific details, provided speech is clearly articulated in a generally familiar accent.

		Can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure etc., including short narratives.
Basic User (Listening)	A2	Can understand enough to be able to meet needs of a concrete type provided speech is clearly and slowly articulated.
		Can understand phrases and expressions related to areas of most immediate priority (e.g. very basic personal and family information, shopping, local geography, employment) provided speech is clearly and slowly articulated.
	A1	Can follow speech that is very slow and carefully articulated, with long pauses for him/her to assimilate meaning.
Proficient User (Reading)	C2	Can understand and interpret critically virtually all forms of the written language including abstract, structurally complex, or highly colloquial literary and non-literary writings. Can understand a wide range of long and complex texts, appreciating subtle distinctions of style and implicit as well as explicit meaning.
	C1	Can understand in detail lengthy, complex texts, whether or not they relate to his/her own area of speciality, provided he/she can reread difficult sections.
Independent User (Reading)	B2	purposes, and using appropriate reference sources selectively. Has a broad active reading vocabulary, but may experience some difficulty with low-frequency idioms.
	B1	Can read straightforward factual texts on subjects related to his/her field and interest with a satisfactory level of comprehension.
Basic User (Reading)	A2	Can understand short, simple texts on familiar matters of a concrete type which consist of high frequency everyday or job-related language
		Can understand short, simple texts containing the highest frequency vocabulary, including a proportion of shared international vocabulary items.

Teaching and Learning English in Thailand

Changes in English language teaching and learning in universities have been arisen. The Ministry of University Affairs has issued the reform of English language teaching and learning in Thai higher institutions. This reform has been done through the proposal for change made by the committee to plan for the development of the English curriculum in Thai universities. This proposal was made with the consensus of the heads of the English departments and coordinators of Foundation English courses. Changes are planned to be completed in four years. The following are the changes that will take place:

1. There will be only one set of English scores used to consider students entering the university that is the English language scores from the English Proficiency Test of the Ministry of University Affairs.

2. Universities will use the scores from this test to place students according to their level of proficiency. Those who are weak will take a remedial course first with no credit. Those who have average proficiency will take the first compulsory English course. If they come with higher proficiency, they will be placed in the second or third compulsory course and can take other advanced English courses to make up the required credits. A recommended score range to place students according to their level of proficiency was already made. As for English major students, English Departments can decide whether students should take the same compulsory language course in the General Education Curriculum as students from other faculties.

3. University students who choose to take English as their language subject must take at least four compulsory English courses. Foundation courses 1 and 2 are integrated language skills and study skills courses; the others may be English for Academic Purposes (EAP), or English for Specific Purposes (ESP) courses as required by each major. Goals and standards of Foundation English courses 1 and 2 have already been proposed to use in writing a national curriculum for these courses in the nearly future.

4. Every university student will take a National English Proficiency Test before leaving the university. This is not an exit exam and students can take it at any time and any number of times. The results will show his/her proficiency in each skill.

The results will not appear in the transcripts but can be used in employment applications and for further education in Thailand. Groundwork for the National University English Proficiency Test has already been planned. Research has already been carried out to examine this test: its balance, systems, skills, modes, and content areas. A committee will be set up to study international standardized tests in to select the proper profile for this test. With the research results and the selective profile, another committee will be assigned to write test specifications and test items (Wiriyachitra, 2010).

Flipped Learning

This approach has become popular as the availability of the internet supports the media implemented in the approach such as videos and audios being more easily accessible and suited to the nowadays generation (Herreid & Schiller, 2013). The strategy has attracted much interest around the world since most teachers have been applying this pedagogy into their classroom (Stuntz, 2013). The idea of the ‘flipped classroom’ is quite common: teachers created the video lessons, or any interactive lessons used to be lectured in a class to be available and accessible at home (Tucker, 2012). In other words, it is a busy, collaborative, and social place where extroversion, collaboration, and teamwork are highly valued (Honeycutt, 2014). The term has been also defined in another educational way. The flipped classroom can be defined as an educational technique that consists of two main parts: interactive group learning activities in the classroom, and direct computer-based individual instruction outside the classroom (Bishop & Verleger, 2013).

Virtual Learning (VL)

The VL can be defined as a synchronous learning, in which students and instructors are simultaneously present on the system and have instant communications, and a significant place in the distance education process. The use of synchronous conferencing techniques can offer opportunities for social interaction in a virtual classroom space. Virtual Learning or VL sessions are mostly preferred in synchronous distance education systems. VL allows students and instructors from different geographic places to have a class by the help of audio-visual communication

via video conferencing software. VL offers extensive meeting set-up features, providing both moderators and users with effective options for interaction and learning. These environments also have several interactive characteristics. They allow students and instructors to communicate orally, exchange messages through typing, share PowerPoint presentations, transmit video, surf websites together, and more (Engle & Parent-Stevens, 1999).

Second Life (SL)

It is an Internet based three-dimensional virtual world, created by San Francisco based company Linden Labs. Originally released in 2003, Second Life has seen a large influx of users over the last few years, now totaling over 16 million registered accounts (Linden Research, 2008). Other similar virtual environments do exist, such as Twinity (Metaversum GmbH, 2009), Active Worlds (ActiveWorlds, 2009) and There (Mekena Technologies, 2009).

VRChat

VRChat is currently regarded as the most popular of these platforms [9]. In VRChat, users connect to a virtual hub, and can then visit a multitude of virtual rooms and socialize with other users present in the same room. Each user is represented by an avatar of their choice. Players can also join the game using the desktop version of VRChat, interacting with mouse and keyboard. In 2018, VRChat claimed to have 4 million total users [19], 30% of whom used a VR HMD. It currently has an average of 7000 daily active users [3]. VRChat also has a special feature that sparked our interest: it allows users to upload custom rooms built with Unity by using a proprietary VRChat SDK. The SDK contains special triggers and event handlers that can be triggered by users, in addition to giving the possibility to upload rooms made of and containing any kind of 3D models made by a creator. We started asking ourselves if we could leverage the vast amount of VRChat users who already own VR equipment and use them as experiment participants by building a custom room that contained the implementation of our experiment, to run crowdsourced experiments in VRChat (Saffo, et al, 2020).

21st Century Communication Skills

As mentioned earlier, one of the most important skills for 21st century learners are the communication skill- language communicative competence. The language which is considered a global language is English (Kitao, 1996). The communication skills here can be defined as follows:

Table 3 21st Century Communication Skill (Binkley et al., 2010)

Knowledge	Skills	Attitudes/Values/Ethics
<p>Competency in language in mother tongue.</p> <ul style="list-style-type: none"> • Sound knowledge of basic vocabulary, functional grammar and style, functions of language. • Awareness of various types of verbal interaction (conversations, interviews, debates, etc.) and the main features of different styles and registers in spoken language. • Understanding the main features of written language (formal, informal, scientific, journalistic, colloquial, etc.). Competency in additional language/s. 	<p>Competency in language in mother tongue and additional language/s.</p> <ul style="list-style-type: none"> • Ability to communicate, in written or oral form, and understand, or make others understand, various messages in a variety of situations and for different purposes. • Communication includes the ability to listen to and understand various spoken messages in a variety of communicative situations and to speak concisely and clearly. • Ability to read and understand different texts, adopting strategies 	<p>Competency in mother tongue.</p> <ul style="list-style-type: none"> • Development of a positive attitude to the mother tongue, recognizing it as a potential source of personal and cultural enrichment. • Disposition to approach the opinions and arguments of others with an open mind and engage in constructive and critical dialogue. • Confidence when speaking in public. • Willingness to strive for aesthetic quality in expression beyond the technical correctness of

Knowledge	Skills	Attitudes/Values/Ethics
<ul style="list-style-type: none"> • Sound knowledge of basic vocabulary, functional grammar and style, functions of language. • Understanding the paralinguistic features of communication (voice-quality features, facial expressions, postural and gesture systems). • Awareness of societal conventions and cultural aspects and the variability of language in different geographical, social and communication environments. 	<p>appropriate to various reading purposes (reading for information, for study or for pleasure) and to various text types.</p> <ul style="list-style-type: none"> • Ability to write different types of texts for various purposes. To monitor the writing process (from drafting to proofreading). • Ability to formulate one's arguments, in speaking or writing, in a convincing manner and take full account of other viewpoints, whether expressed in written or oral form. • Skills needed to use aids (such as notes, schemes, maps) to produce, present or understand complex texts in written or oral form (speeches, conversations, instructions, interviews, debates). 	<p>a word/phrase.</p> <ul style="list-style-type: none"> • Development of a love of literature. • Development of a positive attitude to intercultural communication. <p>Competency in additional language/s. Sensitivity to cultural differences and resistance to stereotyping.</p>

CHAPTER II

LITERATURE REVIEW

This chapter reviews the underlying theoretical framework and research studies previously conducted which are considered relevant to this study. The concepts of virtual classrooms and their variety with the samples will be discussed. Moreover, other related studies concerning flipped learning, computer-assisted in language learning, and English receptive skills will also be mentioned as follows:

Virtual Learning (VL)

One of the many technology-based learning methods is virtual learning. Like a real-world classroom, virtual learning is a place where online learning occurs. In virtual learning, teachers facilitate learners by engaging them in interactive activities. Essentially, both teachers and students participate in virtual learning at the same time. The online learning environment can be web-based and software-based. Virtual learning provides distance learning using multiple technologies, for example, live streaming, web conferences, or video conferences. Other applications relevant to virtual classrooms can be message boards and chat capacities. These virtual learning characteristics eventually enable remote learners to interact with one another in real-time.

Namely, virtual learning brings a sense of togetherness between teachers and students by utilizing a technological-setting experience. Such rooted features are also commonly found in the popular multi-user virtual environments (MUVESs) as well as the massively multiplayer online games (MMOs) or role-playing games such as World of Warcraft and Neverwinter Nights in the gaming world. Nowadays, there are different kinds of virtual environments, however, they similarly provide a set of features that include:


- allowing multiple users to gather in a shared space side by side
- enabling the pseudonymous 3D avatars or virtual embodiment to represent real world's self

- virtualizing an object in a 3D environment and allowing users to interact in real-time
- keeping the real-world surroundings such as physical environments, gestures, or actions that illustrate a sense of existence (Smart, Cascio & Paffendorf, 2007)

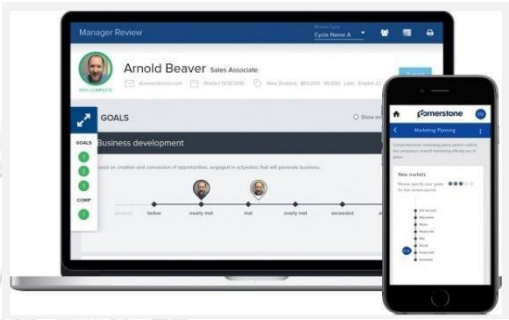
Varieties of Virtual Learning

The concept of virtual learning has been later used to teach abstract content in the classroom context such as in teaching mathematics, geography, or training new pilots. In other words, the idea of conducting a virtual classroom focuses on learning and practice in a real-world situation. The rationale behind this learning environment helps allow learners to understand the contents learned better, which finally enhances the learning process (Sanchez et al., 2000). However, virtual platforms nowadays are available both for free and for sale. Some virtual platforms are shown in Table 4.

Table 4 Virtual Varieties and Their Example Features (Westfall, 2018).

Virtual Varieties	About the virtual platforms and their example features.
	 <p>(SABA, 2018)</p> <p>Saba offers conventional skills management features that allow teachers to build courses, manage learning processes, track learners' performance and set goals, plan, and recruit. The application also drips</p>

personalised and applicable content material to the learners. The browser-based video conference is also provided so that the learners and the teachers can collaborate during the training.


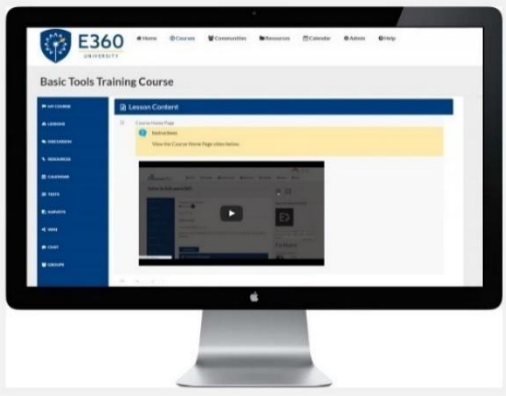





(PiiQ Learning, 2018)

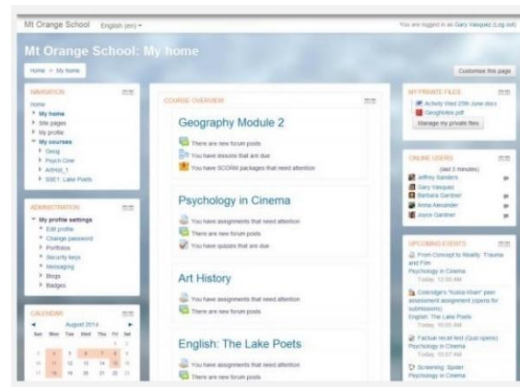
PiiQ Learning helps connect learners to several professional training and courses. The system also gives a feature for learners to create and post content material in various types such as videos, documents, and presentations.



(Litmos, 2018)

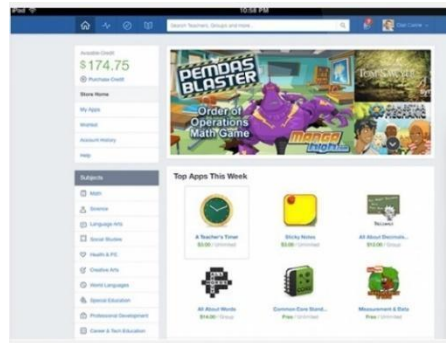
	<p>Litmos features a dashboard where teachers can instantly and directly upload content, build courses, and monitor students' learning activities. Additionally, teachers can monetize their courses by utilizing a built-in e-commerce feature or integrating with any third-party online-selling service.</p>
	 <p>(Edvance360, 2018)</p> <p>As a cloud-based learning management system (LMS), Edvance360 is useful for learners from any level and for corporate internal training. The system allows teachers to manage their online courses, track progress, generate online certificates, as well as create communities.</p>
	 <p>(Westfall, 2018)</p>

	<p>Canvas offers a learning platform with various learning management system (LMS) features such as online grade books, quizzing, course building, and integration with other teaching tools. With Canvas App Center and more than 200 LTI tools available for iOS and Android devices, Canvas allows teachers to access mobile-compatible teaching materials that enhance the learning experience. Moreover, teachers can personalize courses, track the class or individual engagement, access key information, share updates, and send results.</p>
	<p>(Westfall, 2018)</p> <p>Latitude Learning is popular among businesses of any size and from any industry. As a cloud-based learning management system (LMS), it allows teachers to fully optimize courses, offer learners a self-registration, sell courses in a subscription model, assess performance, personalize corporate branding, and other configuration features to the content.</p>



(Moodle, 2018)

Moodle is widely used in both corporate and academic settings. Since Moodle is a freely available learning management system (LMS) software, it allows teachers to optimize students' learning activities outside the classroom or office. Moodle allows teachers to create private websites and customize to provide dynamic courses that engage and track learners.

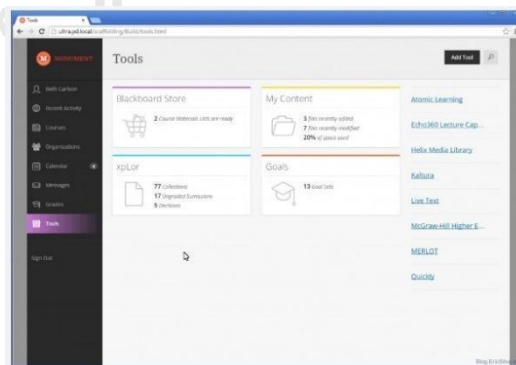


(Edmodo, 2018)

As a multi-purpose cloud-based learning management system (LMS), Edmodo offers teachers and students an interactive and collaborative feature. Teachers can create discussion boards, assign tasks, set up online assessments, or monitor learners' progress. Learners can also use Edmodo's collaborative features to ask questions, create polls, and interact with one another. Teachers can make a difference. Certificates and badges can be awarded to those learners who have earned excellent performance in online tests and exams.



Blackboard



(Westfall, 2018)

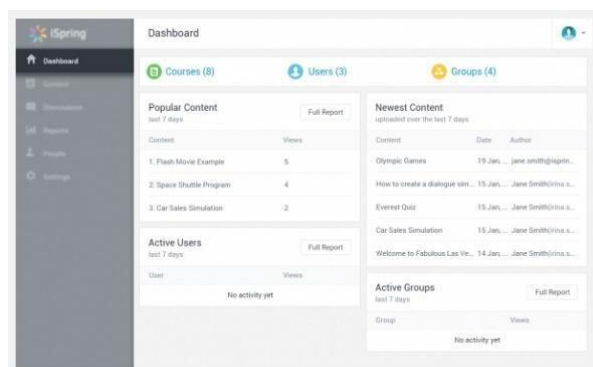
Blackboard has a built-in calendar feature that reminds learners of upcoming deadlines, as well as

all activities. All-important updates, projects, and courses will always be shown at the top of the page. Blackboard also provides gamification features that learner will be awarded digital badges from their accomplishments. Moreover, it offers e-commerce functionality which allows courses to be monetised anywhere and anytime.



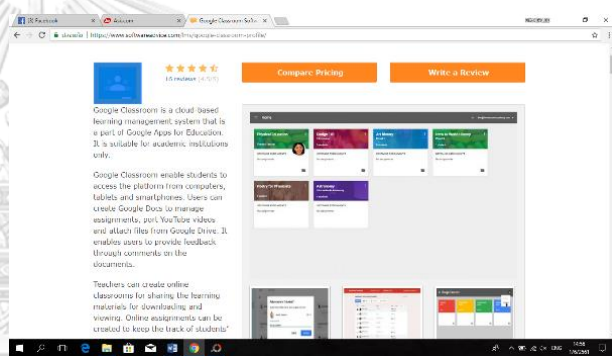

(Westfall, 2018)

As a student information system (SIS), Classe365 enables teachers to manage their learners and control course content directly on its cloud-based learning management system (LMS). The program also provides blended learning tools, discussion boards, and other useful features.


(Westfall, 2018)


iSprings enables teachers to utilize PowerPoint to create interactive e-learning course materials. On the iSpring LMS website, teachers can publish their online courses. The user dashboard provides learners with an overview of their accounts. Learners will be able to receive the latest and popular content or see active users and groups. Various features such as online quizzes, simulations, SCORM files, Adobe Flash formatted files, animations, as well as audio files are all supported by the program.



(Westfall, 2018)

Google Classroom is available on both PCs and portable devices like smartphones and tablets. Google Docs allows learners to handle their tasks much more easily, from embedding videos from YouTube to even linking files directly from their Google Drive. To collaborate with other people, learners can leave feedback directly on any file they create with Google services.





(Westfall, 2018)

A versatile cloud-based learning management system (LMS), LearnCube Virtual Classroom, offers real-time video and audio assistance, as well as various classroom communication tools, class schedules, and media sharing. It is popular among businesses and educational institutions.

However, there have been only a few different tools applied in virtual learning by the teacher since most of the virtual platforms shown in Table 4 are not for free. So that they mainly serve the business organization rather than the educational institutions in general. However, some virtual platforms are quite popular among teachers or researchers. To illustrate, Adobe Connect has been applied in virtual learning by Fallon (2011).

Its impact on the elements in Moore's theory of learner autonomy together with the formation of quality discussions among postgraduates in online teaching programs was explored by students at a higher education institution. This study suggests that not only does virtual learning, deemed as an online asynchronous learning environment, provide learners with course materials, but also brings a simultaneous learning experience and interactive classroom to them. Such an academic setting with ready-to-use contextual course materials enables an active learning approach among learners and it also allows more quality discussions (Yang & Liu, 2007)

Second Life (SL)

The Second Life, a technology-based learning platform, plays a crucial role in promoting learners' learning process in a real-world environment. Second Life provides students with ample opportunities to practice skills efficiently. It also allows learners to gain additional essential skills and reduce their anxiety, which effectively boosts the learning process. The students are eventually allowed to practice problem-solving skills, leading to creativity. The Second Life is beneficial for the classroom context in various ways. The first benefit of using Second Life is that it is cheap when compared with real learning platforms such as planes and automobiles. Second Life learning also decreases the danger that may result from learning in real environments. Finally, it is considered a channel where ideas and learning experiences are exchanged among learners from diverse boundaries



Figure 3 Second Life Virtual Classroom (Johnson, Corazzini & Shaw, 2011)

On the Internet, Second Life is a three-dimensional learning platform in a real-life environment. As developed by Linden Labs, Second Life can be accessible through the Web free of charge. Second Life users can make an avatar that shows their presence and identity (Mathews et al., 2012; Dickey, 2003). The avatar also serves as users' eyes to view 3D virtual environments. The functions of avatars are various. That is, they can walk, fly, and teleport in simulated environments which

cause many types of activities. To be more specific, Second Life possesses three key attributes: the technicality in infrastructure, richness in engagement and an opportunity to socialize, from which learners can experience. These features play a critical role when it comes to the pros and cons of utilizing virtual reality (VR) in classrooms. Since Second Life's architecture is based on a client-server model, the user's computer locally runs the graphical user interface while the Linden Lab's servers run the Havok Physics simulation for a 3D generation



Figure 4 The Real Setting of the Student and Teacher in Different Labs Joining Second Life (De Lucia, Francese, Passero & Tortora, 2009).

In comparison with typical gaming engines where items such as characters and weapons are ready-to-use, the visual experience works differently as it needs to be rendered simultaneously. Such a feature can bring various kinds of content to users. For example, users can easily create objects on Second Life, which is like how they process electronic elements on computer-based software. Complex 3D objects are basically generated from basic shapes like cubes or cylinders that will be molded into different shapes. To animate the elements, users can also use embedded scripts, which helps enrich the interaction between those elements as well. In this context, it resonates more with game creation than general computer programming in terms of designs and development processes.

Several preliminary studies suggest that there would be some educational advantages on virtual reality, including Second Life, such as particular learning experiences, groups of learners, and fields of the subjects (Bradshaw, 2006; Roussou, et al., 2006; Slator, et al., 2005; The Scheme Community, 2007). Instead of isolating learners into specific groups, this study investigates the class and school community. The purpose of this applied research study was to investigate how learners gain their background knowledge through the new teaching approaches by using Second Life in certain curriculums and focused groups. Due to the learners' heavy background in technology, it was such a challenge for the researchers to fine-tune how learners would meet their digital way of learning. As a result, they use a pre-screening questionnaire to evaluate the pre-service education students' specific technical knowledge. During this study, the soon-to-be teachers will be able to gain a set of future-ready skills and abilities and apply them for their teaching in the future. It was hoped that they should be able to learn how to utilize and integrate the virtual world into the real-world environment. Nowadays, Second Life is adopted in teaching by several universities. For example, at Harvard Law School, the Harvard Extension School's moot court has been developed to simulate how court proceedings happen in a real-life environment through Second Life (Nolan, 2006). Also, several historical European theatres are simulated in the Theatron 3 project (The higher education Academy English Subject Center, 2006). Moreover, Second Life is used to extend the creativity amongst specific student groups in the Scheme community at the Open University. Students can also utilize Second Life to gain virtual support for their research. The Centre for Advanced Internet Architectures at Swinburne University in Australia is utilizing Quake 3 as part of the L3DGEWorld project to simulate statistics and monitor their computer network (Turner, 2008). Stanford University uses virtual reality in research and teaches virtual reality building in their computer science departments (Timmer, 2007). According to Bainbridge Journal of Virtual Worlds Research- Learning in a Different Life 7 7, virtual laboratories are some of the new aspects of social science that virtual reality is bringing to (2007). In this study, Second Life was used to enhance the education students' teaching methods as well as their critical and proactive engagement in cutting-edge technologies in their final year of

study. There were no classes at the university teaching about Second Life or using the tool as a medium in teaching at the time of the study. However, departments and centers at the university gradually adopted Second Life to support research and networking activities. After trying to have a virtual classroom on Second Life to teach his senior pre-service education students in 2007, the researcher decided to perform this study. The researcher was impressed by this group of university students' high level of involvement with Second Life. Those young educators started exploring the pros and cons of Second Life without any hardship. They could quickly blend Second Life into their teaching practices and curriculum. In this way, Second Life is potentially beneficial to facilitate comprehensive learning amongst higher education students. As a result, Second Life was integrated into the course.

A few studies have revealed that second life is used effectively in the classroom. For example, Campbell (2009) studied student teachers' responses to virtual classrooms for teaching practice. Campbell aimed to offer senior education students the skills required for learning in the digital age. The results suggested that second life helped provide the students with useful experiences about the use of virtual classrooms for teaching practices. The results also showed that Second Life encouraged students in having an engaging and comfortable discussion and activity in the classroom, with 87 per cent of students reporting that the activities they formed in the classroom are compatible with Teen Second Life. "Technology is a popular way to help students explore new things," a student said. The other student suggested that Teen Second Life allows her to customize a classroom that appeals to young-aged students, and one believed that Second Life helps students tap into new technologies and learn about them. "Second Life also has an educational useability, not only socializing," said another student. Therefore, the students are prone to use Second Life as one of the learning tools inside their classroom, and they have developed better child-focused activities from it. However, only six students (or 25%) out of a total of twenty-four responses said they might be interested in using Second Life in their class later, which means they believed that Teen Second Life might not be a good fit to use in schools in remote areas. "Second Life can be used to create constructions, for example, students can build their dream house or places they like,"

one student said in the survey while the other one said, “My students will be encouraged to join a Peer Skills training program through Teen Second Life, which the focus is to encourage students to support one another via reflective listening.” However, during the focus group interviews, 2 students suggested that security is one of their concerns, which makes them choose not to use Second Life in the future. “In my opinion, the age gap between 12 and 18 in ‘Teen Second Life’ is still too wide,” a student said. The student elaborated that the 12-year-olds are considered teenagers whereas the 18-year-olds are already in early adulthood.” Overall, most students said they were comfortable after accomplishing the activity when it came to experimenting with new technology. “I might not be exposed to this kind of technology if it was not introduced into the class,” a student said in the final survey. “To be able to use Second Life to share teaching materials in the laboratory made me feel wonderful and I did the most learning there!” wrote another student. Another student added, "Since I have used Second Life in the classroom, it would also be beneficial in other personal uses." A student, however, said the opposite, stating that he or she was already accustomed to exploring all areas of technology (Campbell, 2009).

VRChat

Humans are highly sociable creatures, therefore the demand for more Social VR is logical. Current VR communication platforms such as Facebook Spaces, VRChat, and AltspaceVR, and many more have significant restrictions in terms of communication interactions. Users are presented as fictional (often comic-like) avatars, which is another disadvantage. Even though this tool could be useful in some scenarios, it could turn out to be the opposite in others, such as business conferences or one-on-one conversations. Given the current approaches, there are different use cases showing how users can adopt such technology, which is required to conduct more research to synchronize the requirements for Social VR (Saffo, et al, 2020).

In 2017, VRChat was released as an online VR game that supports multiplayer. Even though its name includes the word "VR," VR devices are not required for some of its game functions. VRChat enables players to create rooms, have real-time conversations with other players, upload their own profiles, create rooms, or play any kind of media. VRChat is trendy due to its high level of freedom

and creativity. In early 2019, more than 4 million people joined VRChat, yet now only 30% are considered VR users and most users are gamers who only use the game function to create the virtual images rather than utilize the social features. Rec Room is another popular social-gaming VR technology. It offers various kinds of theme rooms as well as entertaining battling games. The service puts emphasis on interaction enhancement aiming for entertaining purposes, making VRChat ideal for any kind of team-based game. Despite the lack of social nature, it leans more toward game functions (Wang, 2020). Since devices that support VR are not widely available now, VR applications for social networking are way behind those for VR social games in terms of development. Typical VR social tools include Haloboration, High Fidelity, and Facebook space. Their primary goal is to bridge the gap between users by allowing them to create experiences in the virtual environments via cutting-edge technologies using gestures, facial expressions, eye movements, and more. This form of virtual reality brings a new take on social tools but only a few people show their interest in using them due to the limited access to the internet as well as the insufficient number of users engaging with the tools in social applications. In 2020, Facebook Horizon, a VR social realm, will be launched on Facebook's Oculus Quest and Rift platforms, which shows a promising future. In the beginning, users can simply gather and talk, and then they may explore different features, play games, form groups, and even create their own unique experiences within that linked world (Wang, 2020).

ClassStart

As an online learning management system, ClassStart is designed based on a student-focused approach and aims to improve Thailand's educational sectors allowing students to access their learning at any time and from anywhere. The users can access it on computers as well as all portable devices with internet access. Instructors and students from all over the country have been able to use ClassStart free of charge. In Thailand, there are approximately 45,000 users and over 3,500 classes from more than 200 educational institutes. Membership, classroom administration, announcements, teaching materials, web boards, groups, lesson

exercises, learning progress tracking, and evaluation systems are some of the features of Class Start (ClassStart.org, 2016).

Furthermore, ClassStart combines flexible utility with cutting-edge technology to promote online learning. Membership, instructor, and student systems are the three sections of ClassStart. Figures 2 and 3 illustrate the class's workflow and functionalities. ClassStart tools can be tailored to the learning styles of their students in different classes, from cooperative, active, to inductive learning. In addition, based on back-end analytics, ClassStart provides personalized service to each student. A tool such as a reflective journal, for example, shows the overall learning process that has been done, which allows the class conductors to keep track of the learning progress of each student. The mechanism for transmitting the learning process is just as crucial as the knowledge acquired during learning. Learners can connect their learning and learning processes by regularly recording their knowledge, allowing them to recognize the content and learn more effectively. It also keeps a close eye on student comments. The instructor can also organize the lesson to fulfil the instructional activities (Thongsri, Shen & Bao, 2019).

Adobe Connect

Adobe Connect Pro (or formerly Macromedia Breeze) is a virtual classroom platform. It is a web-based environment hosted on a remote server that can be accessed by a specific custom link to each meeting. The university was given access to the environment for the sake of this experiment. Adobe Connect supports many file types including MP3s, MP4s, and documents, allowing users to exchange materials via PowerPoint and Flash.



Figure 5 Screen shot of Adobe Connect (Vu & Fadde, 2013)

A screen-sharing feature is also provided in Adobe Connect, helping users to easily work on documents they jointly developed or on training purposes side by side. Built around numerous "pods" that can be alternatively shown (or hidden), virtual learning is modular in design. A shared main screen, participants panel, web camera and built-in microphone, file sharing, chat box (single or group chat modes), note pads, external links, and Q&A are all included in these pods. The shared whiteboard as the main screen is where files from PowerPoint will be displayed, and where users can collaborate on developing diagrams or other documents.

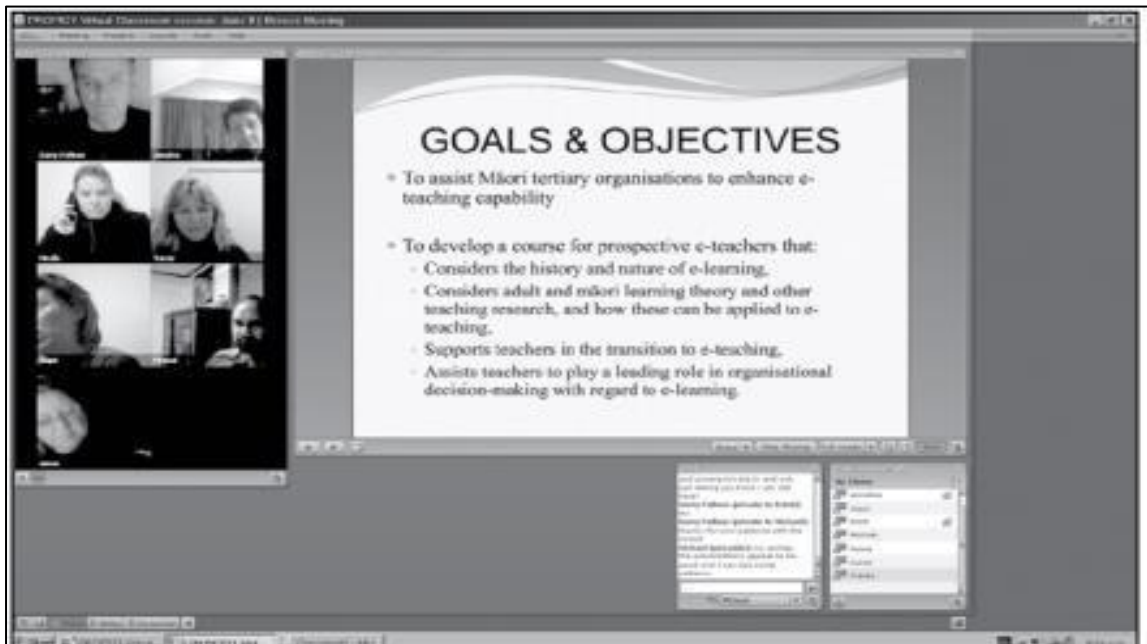


Figure 6 Adobe Connect Virtual Learning Video Conferencing (Falloon, 2011).

Using such a virtual learning tool has several benefits. One of them is that it creates an atmosphere that allows users to confidently exchange ideas or ask questions without being awkward by utilizing the ready-to-use embedded communication tools in the classroom, according to the study. It was also suggested by 9 responses that the classroom has much better information flow and less duplication by getting assistance from the tool in effectively sending messages across the participants. They emphasized the importance of a feature that enables them to have direct communication with the lecturer in order to ask for clarification or discussion without having to engage in frequently lengthy and time-consuming asynchronous online chats. One said it was a "pro" for her because, in the forums, it is challenging to give proper explanations to something" (Falloon, 2011).

Gedera (2014) conducted another study on students' experiences of studying in the virtual learning environment. The data for this study was based on interviews, online activities on Adobe virtual classroom, and other related documents such as course outline, evaluation criteria and activity descriptions over the course of one semester. The focus was put on online learning activities. During the interviews, the

participants were asked semi-structured questions on how they experience the virtual classroom at the beginning and the end of the semester. The study found that participants in the virtual classroom activity system could see each other in real-time thanks to the Adobe virtual tool's capabilities, which they considered as an advantage because it allowed them to get to know each other better. Being able to instantly get feedback and exchange amongst other students, there is an increase in engagement in their synchronous learning (Gedera, 2014).

Illuminate Live! (E!)

E! combines various technologies into one place providing an online classroom in which real-time communications amongst students can take place. Providing an asynchronous online learning experience, users are allowed to directly chat, send audios via Voice-Over-Internet Protocol (VOIP), share videos, writes or display presentation slides, creates groups for specific activities, and even set up polls. E! enables educators and students to have real-time interactions and minimizes the distance between one another. Given the fact that conversations occur when there are one side and the other, virtual classrooms which isolate everybody apart are more potential to promote two-way discussions than other one-way communication approaches (McBrien, Jones, & Cheng, 2009).



Figure 7 Video Display in Elluminate Live!
(Schullo, Hilbelink, Venable & Barron, 2007)

A group of nursing students using Elluminate Live! (E!) was observed by Battin-Little, Passmore, and Schullo (2004), and it turned out that most of the students found E! beneficial. Once students get accustomed to technology, there were few or no issues in the course. To increase engagement, emoticons, a hand-raising button, screencasts, and polls would be students' favorite features, according to the survey. Students mentioned that their experience in learning and communication had been improved. The course has reached a tremendous amount of satisfaction and increased a better collaboration amongst students in the group.

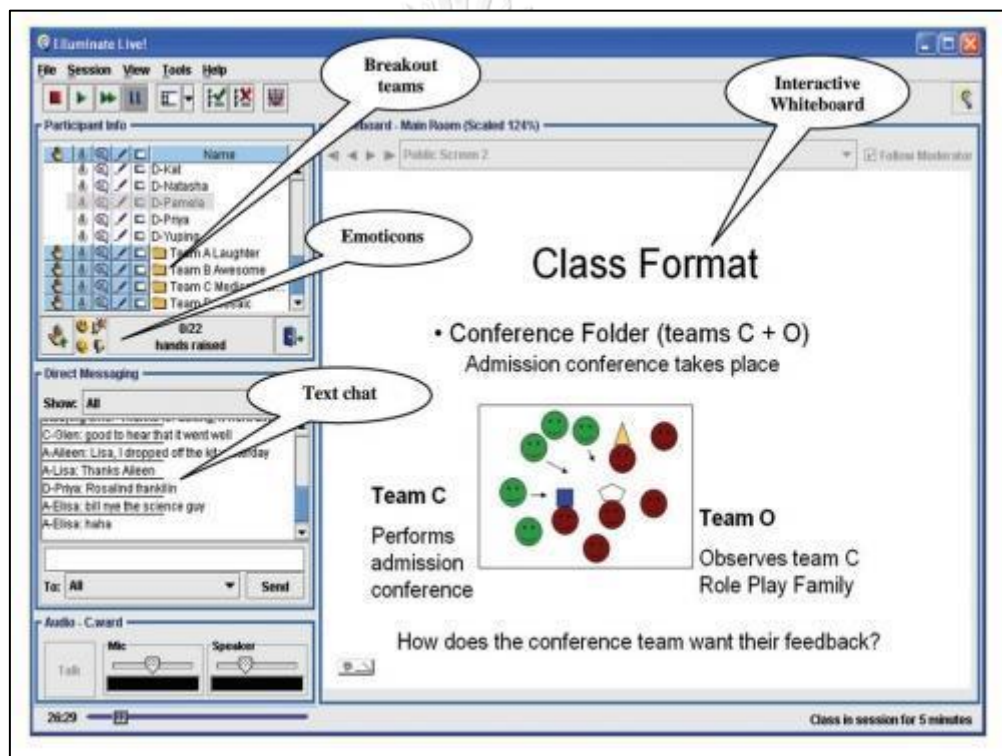


Figure 8 Class Format in Elluminate Live!
(Lavolette, Venable, Gose & Huang, 2010)

Furthermore, McBrien, Jones, and Cheng (2009) conducted a study on the same topics. They have used Elluminate Live! as a tool in a virtual classroom. Overall, the results suggested that E! brought enjoyable experiences in learning amongst the students. On the other hand, the findings show three major shortcomings found in using such an online tool, possibly leading to further study of online learning. The first drawback was that concurrent activities in the system—where

voice, messages, presentations, or questions can probably be replied to via many options such as simple emojis or closed-ended answers, might cause confusion. However, the instructor can manage to handle this issue. In E! we can limit the number of active devices and set up a time for them to be activated and deactivated at any time. For example, the instructor can enable or disable the feature for written conversations, which allows limited communication or usage at a time. In this way, the instructor can improve students' attention in large classes.

Stoodle

Stoodle, an online whiteboard service backed in part by the CK12 Foundation, allows students and educators to instantly create and collaborate directly on a whiteboard. Users can write, draw, and upload images on the web platform and talk to their peers on the whiteboard space via a built-in microphone. Stoodle.org began as "Instunet" (the Interactive Student Network) after the first Stoodle was launched, with the goal of linking students from various schools to share their knowledge on a product that would disrupt the online learning area (Brower, 2015). Stoodle has a straightforward and user-friendly layout and is simple to use for users who have a basic understanding of technology and the internet. It is not required for users to create an account, only with a few clicks to get started. A virtual whiteboard can be used for brainstorming or as a shared project space like a physical whiteboard. Images, documents, audio, and video files can all be added to some virtual whiteboards. Other features include built-in chat capabilities, allowing users to hold virtual office hours or other meetings with each other. Furthermore, many whiteboards can be saved or printed for later use (Studio, 2014).

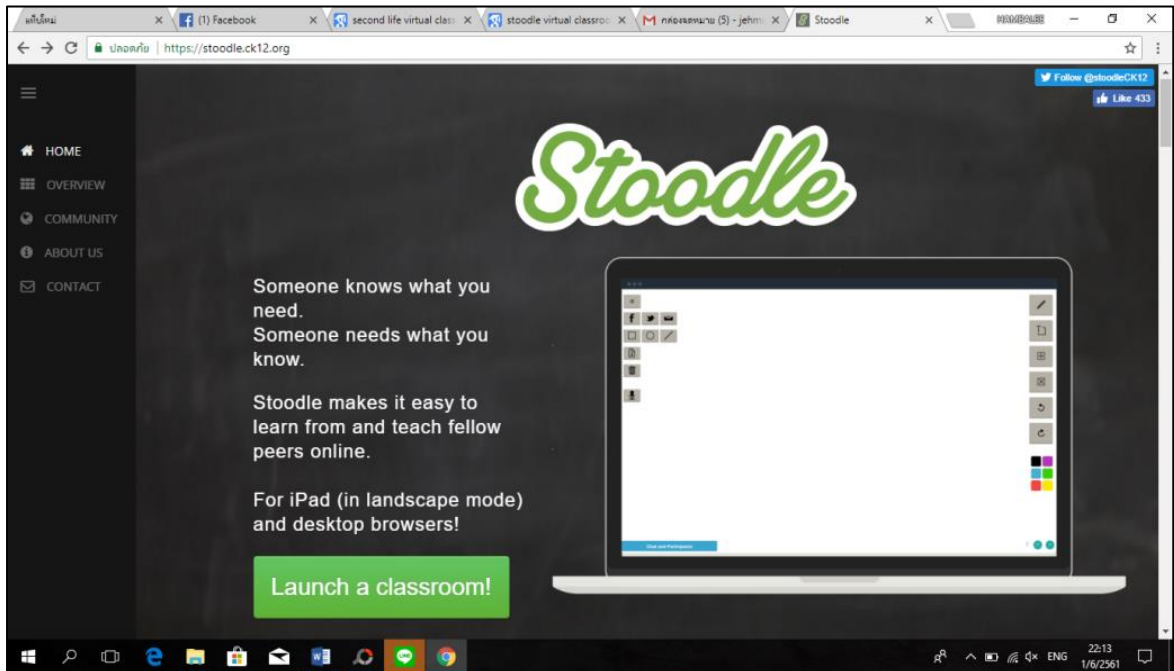


Figure 9 Stoodle Home

Stoodle's features can help teachers and students in a variety of ways. Stoodle, for starters, provides students and teachers with an infinite-page virtual whiteboard. It allows you to collaborate with people from all over the world. The teacher can construct their own classroom, send the custom link to the class, and simultaneously collaborate within such a classroom. Furthermore, Stoodle not only allows you to share a virtual whiteboard space with others but also allows you to communicate with those with whom you are collaborating.



Figure 10 Stoodle Features with the Chat Menu.

As previously said, students can use Stoodle to connect their computer's microphone and communicate with their friends in real-time. For conversation, both text and audio chat are accessible. Gilmore and Warren (2007) expand on Flately's description with this feature, claiming that it enables students to engage in concurrent debates by inputting their information into an on-screen chatbox. Wimba (2009) also mentions that talks might take place over a microphone. In either scenario, the software can record these electronic "conversations" verbatim (Gilmore & Warren, 2007).

This type of synchronous technology, suggested by Gillmore and Warren (2007), helps connect users in real-time yet requires log-ins to the system to send messages with one another, which is equivalent to face-to-face conversations in real life." Students are more familiar with emails, webs, or forums as asynchronous technologies. Such technologies, on the other hand, turn to be burdensome in certain scenarios, for example, students might be required to always stay active. Students might be able to fine-tune their schedule to all their online activities (Allan, 2007) if such activities can be planned out and aided by using the virtual classroom, even

though time synchronization is required. Several studies have investigated how students achieve their goals and what affects their attitudes and retention based on the effects of synchronous and asynchronous activities. Those studies concluded that asynchronous instruction is better for students than traditional synchronous instruction (Bernard, et al., 2004; 2009). When instructors have a choice, Bernard et al. (2004) claim that understanding the impact of how synchronous and asynchronous communication can be combined helps design a better instructional plan. Stoodle also retains all the data that you work on in the virtual area, in addition to these benefits. It can be accessed later. It aids pupils in reviewing all the material they have learned. Its attributes are the most valuable aspects of it. With the use of this tool, instructors may give a pictorial representation to all the course concepts, and collaborative work can be more interesting. Students and educators make creative use of this tool (Camtasia, 2014). Her study, titled "Supporting pre-service teachers' Technological Pedagogical Knowledge Integration using technology-enhanced lesson preparation," was like Knoef's (2015). The integrated assistance in her study was divided into two sections: integrated technological and pedagogical information (TPK) and separate content information, which was used to store the data. The findings reveal that this virtual learning platform is an excellent example of the integration of technological and pedagogical knowledge (TPK) that benefits students in terms of evaluating their participation and ensuring that participants comprehend the value of technology and how it influences pedagogy (Knoef, 2015).

Flipped Language Learning

K-12 education has recently adopted flipped classrooms (Ash, 2012). The flipped classroom occurs when students are allowed to individually study the recorded course materials outside the classroom period with control over the pace of their learning. Therefore, it requires less time from those real-time student-focused activities in the classroom. In this case, the K-12 curriculum suggests a variety of one-on-one mentoring sessions between teacher and individual student in order that a personalised plan and large-scaled inquiry projects can be properly provided (Prober & Khan, 2013). From several higher education courses, it is also recommended that

the focus in the classroom be put on applying the acquired knowledge (Pluta, Richards, & Mutnick, 2013). Such an approach would allow the teacher to manage critical errors that might occur during the class.

Instead of using limited class time to introduce an idea, normally through lecturing, the teacher would take videos or screen records to illustrate such a topic to students. This will help free up class time that might be more valuable to in-class engaging activities. So, self-study materials in accordance with face-to-face activities and formative assessments should all be distributed included in the curriculum. Although this concept has been adopted by many teachers from different levels and settings for ages, Colorado high school teachers, Jonathan Bergman and Aaron Sams, began creating screen records and recorded audios for their students in 2006 (Makice, 2012).

In other words, flipped learning plays a crucial role in e-learning contexts (Graham, 2006). By flipped instruction, Hung (2014) means a pedagogical approach where learning contents are mainly delivered outside of the classroom, whereas class time is mostly used for activities. Hung (2014) further explains that flipped learning is a mode of instruction where learning content and homework are provided outside the classroom, while enhanced activities are mainly conducted during class time. Outside of class time, the use of technology is utilized as a medium of instruction.

In general, instructional videos are used as learning tools in a flipped classroom (Hung, 2014). Other online resources such as Facebook, Twitter, or YouTube considered part of technology use can be applied in a flipped learning environment as well. In other words, flipped classrooms can be conducted with various types of videos that help students prepare for active learning activities in class.

The flipped classroom helps to structure the learning processes which enable students to prepare materials related to the topic and theoretical knowledge in advance so that they are ready to have on-site interactive sessions in the classroom. It improves the effectiveness and richness of the relationship since students feel more at ease and secure asking questions and addressing difficulties amongst one another. Furthermore,

students tend to be more engaged in in-class activities rather than focusing on repetitive tasks such as notetaking or explaining intellectual content. As a result, schoolwork takes on a new meaning. Students frequently suffer from a lack of comprehension of critical topics, which results in their failing to complete their homework and being unable to access the teachers' tutorial. Therefore, some students choose to scribble the answers to their schoolwork rather than completing the activities on their own. Students have limitless access to technological resources in the flipped classroom, which helps to overcome this challenge. An online individual or group learning environment allows students to independently test out their understanding by reviewing video tutorials or extra course materials. Also, having additional practicing tasks, projects, and critical analyses would help expand students' understanding of the topic they have learned in class. This practice can also allow students to review their peers' performance. The boundary between in-class and self-study activities is blurred because of this arrangement of the studying process, in which each stage of learning in the curriculum needs to be well-planned and integrated to optimize the use of the flipped classroom.

The advantages of using a flipped classroom technique are numerous. Most of the benefits appear to be realistic, especially an increase of time for more engaging activities or for those hybrids in teaching that combine face-to-face and online learning scenarios. However, the technique has its drawbacks. First, students can encounter poor-quality video materials because such content requires technical skills to produce, and it is challenging for some of the teachers to do so. Second, the settings in which students conduct their self-study sessions might not be optimal for learning, for example, there might be distractions from the surroundings so they cannot fully pay attention to the content. On the other hand, the teacher can at least check comprehension using a variety of formative tests during face-to-face settings. Third, there is no guarantee that students will watch the tutorials and constantly understand the content, which might lead to poor preparation for upcoming face-to-face exercises. Fourth, an extensive scaffolding approach may be required to facilitate students' comprehension of the content. The challenge is that effective scaffolding activities such as “stop, think, and answer” questions could only be incorporated by

any skilled teacher through the face-to-face environment whereas they may fall short of offering adequate such helping activities through the online self-study environment to all types of students. Fifth, the stand-alone learning session does not allow the environment that students can ask questions from the teacher or have discussions with their classmates. As a result, essential just-in-time questions to aid comprehension cannot be asked without the instructor's presence during the self-reviewing session—which is challenging. Finally, teachers cannot apply the flipped classroom concept to second-language learners or students with learning disabilities—a group that includes students from all educational levels and contexts, not just K-12.

Due to several roles and responsibilities that the teacher and students have to share in the flipped classroom, it is now vital to enhance the educational processes to improve better engagement. Firstly, it is inevitable that students have more control over their interest in learning from the flipped classroom. Provided with sufficient access to all resources they need for their self-study environment, students will be able to study at their own speed. At the same time, there is less or no limitation of when students can review the tutorials. In case that the student needs remote support, the teacher, together with their classmates will be reachable via chat box or forums. Moreover, the flipped classroom allows students to make up their absence in classrooms by having constant access to ready-to-use online materials. Secondly, the students can virtually collaborate and work on team projects or group assignments through the flipped classroom, which also encourages students to learn from and give support to each other if needed (Marsh, 2012). Furthermore, students can participate in the peer-to-peer assessment to feedback one another's work based on the defined criteria. Finally, students will be encouraged to be responsible for their own education. In regular learning environments, in comparison, students will have to be more self-driven and take control by improving and building their time management and independent learning skills. When it comes to the flipped classroom, the teacher's role has also dramatically shifted, not only giving passive knowledge but also providing support throughout the learning process. As we focus to encourage self-driven learning from the students in the flipped classroom, it is important for the teacher that students get sufficient support and motivation for their learning,

especially for those who tend to be more dependent on time management and extra support. Since there are several online-based activities for students to get involved in the flipped classroom, the teacher plays a crucial role in creating a welcoming atmosphere to boost up students' participation. Also, the teacher must be an e-learning moderator who will be monitoring all discussions and will not be leading them, according to 208 Arina Evseeva and Anton Solozhenko / *Procedia - Social and Behavioral Sciences* 206 (2015) 205–209. He or she must motivate and encourage pupils, as well as supervise and evaluate their progress, provide comments, increase confidence, and sustain motivation (Marsh, 2012).

However, like with any creative concept, there are significant obstacles to overcome before the flipped classroom technology and the teaching approaches can be successfully integrated. First, the additional effort that teachers must provide is to create content and they must devote a significant amount of time as well as expertise to perform such duties, involving designing course materials and conducting more research in order that they can build up an online course. On the other hand, once the flipped classroom has been successfully set up, it allows more time for teachers to focus more on improving their teaching methodology. Another challenge is that all content under the curriculum integrated with the flipped classroom must be systematically organized and logically connected to face-to-face activities. Once any assignment or task both from on-site and online is completed, it must be tracked and checked. It is not an ideal scenario that tasks have been left unchecked or unassessed. In this way, students will be driven to study diligently, which will also improve the overall learning journey. However, some students prefer not to replace face-to-face sessions with online activities because they want to maintain their in-person communication with teachers and classmates, which reflects as one challenge. Therefore, the understanding of features and concepts of the flipped classrooms is compulsory for the students to have. An explanation about the communication tools available in the course must be made beforehand.

In terms of language acquisition, the teacher and students play a significant role in developing the teaching and learning process for foreign languages. To be able to learn a language, the teacher, and students or amongst students must be in an

environment that supports in-person interaction. Based on a pedagogical experience, English-majoring students from the National Research Tomsk Polytechnic University possess different levels of English language competency, and as a result, they require varied periods of time to acquire comprehensive content or to complete given tasks. Students can overcome this challenge with flipped classroom technology, which allows them to determine the pace, speed, and volume of the subject they are studying. Furthermore, speaking skills, as one of the crucial elements in language mastery, can be developed by encouraging students to expose themselves to online conversations, which can be accessible through chat boxes or forums.

Several studies lend support to the use of flipped instruction in promoting learners' English language skills. For example, Hung (2014) attempted to integrate flipped instruction into English language classrooms. In Hung's study, a WebQuest active learning strategy served as the major theoretical framework. Simply put, the study aimed to investigate the impact of the flipped teaching on English language learners' learning gains. The students' attitudes and their participation levels were also considered in the study. The students were divided into structured, semi-structured, and non-flipped groups. The results revealed that the students from structured and semi-structured flipped groups gained better learning outcomes, helped develop their better attitudes toward their learning experiences. The findings also demonstrated that the flipped learning experience encouraged the students to devote themselves to the learning process.

Computer-Assisted in Language Learning (CALL)

In terms of language learning, Hubbard (1996) observes that it is frequently asked by several language teachers how computers can be a part of the language-learning process. Computers are increasingly being used in language acquisition, posing a difficulty when it comes to research and business deals. Hubbard claimed in 1987 that technical matters found in the courseware are more likely to be focused instead of the language-teaching capabilities. Then, a Computer-Assisted in Language Learning or CALL approach was presented. This methodological framework is

combined with the previously developed one from Philips (1985) and Richards and Rodgers. Hubbard's framework comprises students, teachers, evaluators, and developers. Hubbard's methodology is divided into three sections including developing, evaluating, and implementing. "The development must precede evaluation, and both processes will be followed by the implementation at the end," says Hubbard. Additionally, the integrated approach amongst the processes is used in this framework, in which the development can be influenced by the evaluation, and then the implementation will bounce back to the development and evaluation (Hubbard, 1996). Online education is increasingly gaining popularity, as universities, educational institutions, and businesses perceive it to save money and increase productivity. With the ever-growing Internet community, a bridge for computer-assisted language-learning systems have emerged. This bridge opens possibilities and minimizes the gaps in foreign language acquisition. The online CALL would be the most effective example of CALL applications today. There are many benefits that CALL services can offer to the students such as word processing and spell-checking tools, as well as the Worldwide Webs services such as chat boxes, e-mails, journals, online surveys, and a chance to communicate with native speakers. Moreover, the online CALL allows a form of distance and online learning.

According to Caldwell (1998), multimedia such as pictures, audio, and videos can be used to encourage students in language acquisition, stimulate their creativity, and provide the support needed in producing the desired output. Learning using such multimedia appears to be more dynamic, increase richness in information, and bring better engagement, according to Hwang and Shadiev (2014), Kent and Shadiev, Hwang, and Huang (2014). Regarding Harmer (2007), the audio recordings with the target language allow students (as well as their teacher) to listen to evaluate progression in their language learning. Web-based multimedia systems, according to Hwang, Chen, Shadiev, and Li (2011a), Hwang et al. (2011b), and Shadiev et al. (2014), facilitate learning on digital content. The study looked at some studies on how to use technology to help people improve their speaking skills. Barr, Leakey, and Ranchoux (2005) ran a pilot project that combined the CALL approach and online activations into an in-person discussion in the classroom to provide unity in

collaborative and individual learning amongst the French-majoring freshmen. Those students were separated into two groups. The first one will be a treatment group focusing on lessons taught by using multimedia and the other is a comparison group focusing on lessons taught by using a traditional conversation approach. The same course content and assessment were exactly applied to each group. After a short period of time, the result suggested that both groups performed well, however, the comparison group showed more progress than the other one because they were not involved much in a learning process where they had to get accustomed to new technologies—which allowed them to focus more on course lessons as well as teaching and learning. Additionally, the VPen annotation system was created by Hwang et al. (2011b), who discovered that it was effective in enhancing EFL students' writing and speaking performance. Candle Talk, a Web-based discussion environment created by Chiu, Liou, and Yeh (2007), aimed to improve EFL students' speaking skills by providing them with practical speech acts. In the study, Candle Talk's automatic speech recognition (ASR) engine provided an assessment on how students performed as soon as they gave the proper input into the system. The proposed setting was presented to 29 English majors and 20 non-English majors, and their learning results and perceptions in an EFL scenario were explored. The findings revealed that Candle Talk was beneficial to college freshmen, particularly non-English majors when it comes to the learning of speech acts. Most students thought the system-assisted instruction was helpful. Several works on information technology-assisted storytelling were also examined. Digital storytelling, according to Kern (2006), is a learning activity that entails creating film narratives using multimedia such as images, videos, audios, and texts. Hull and Nelson (2005) collaborated on the youth project for digital underground storytelling where multimedia tools were provided for participants to create their stories various from self-related pieces to community-impact ones. These representative modalities were investigated by the researcher to see how they collaboratively function in digital storytelling. An online-based setting with interactive activities adopting a storytelling approach, according to Huffaker (2004), allows students to ask or exchange questions, debate, and express ideas and feelings amongst one another. Storyboard, used as an exercise enhancing students'

creative writing, could be included in the classroom, according to Olthouse and Miller (2012). Illustrations can be shared amongst students and used to construct storybooks, which allows a group of students to collaborate with one another, provide feedback, and even export the final outputs directly from Storyboard. To investigate how effective, the EFL teaching and learning process approach through storytelling and narrative writings was, Tsou et al. (2006) created an online environment with multimedia for the EFL elementary students. The EFL instructor used the interactive storytelling environment to create stories, and then the stories would be told amongst EFL students. In this case, the EFL students drew on their surroundings to retell stories. It was discovered that it was beneficial to both instructor and students when the online multimedia storytelling environment was made; it could considerably facilitate both the storytelling and narrative recall processes of teachers and students.

English Receptive Skills

English is one of the subjects taught in general education was initially coined the term by Miller (1988) for having a group of the subjects, which can achieve individual values from humanistic approaches. This can be explained that the purpose of the general education is for the learners can analyze and criticize any issues in the society liberally which can be called presently as competencies. After the model have been being used widely, especially in American colleges, the term of “perennial human questions” has been shared by different faculties modelling the methodology of questioning and practicing with disciplines (Newton, 2000). They have been finally focusing on communication information for spelling out for lives (Newton, 2000). This phenomenon can reflect why teaching English is a part of required subjects as general education for all curriculum as it is for communication purposes (Jiang, 2004). The Thai students in Thai higher education institutions, for example, are required to study eight credits of English subjects as a part of the required general education for graduation (Kanokpermpoon, 2019). So that the English courses are for succeeding the goal and reform ways of college English teaching which is generating a distinctive system of the curriculum. This means both English receptive skills and productive skills are needed to be taught and mastered (Wang, 2011).

The terms 'receptive skills' or sometimes defined as 'passive skills' (referring to reading and listening skills) and 'productive skills' (referring to speaking and writing skills) are frequently used interchangeably. When it comes to a new language acquisition, students usually focus on improving their receptive skills before moving on to productive abilities. The two have a complicated relationship because they all help each other improve other skills. Reading skills, for example, can help with writing growth, while listening skills can help with speaking fluency. It might be difficult to develop receptive skills, especially when speaking with a proficient or native speaker. Although initiating a discussion is very simple, keeping one going is more difficult. Learners are prone to miss features of connected speech or idiomatic language, resulting in a failed engagement. In a similar way to reading, if the language or grammar is too difficult, the text becomes unreadable. The main distinction between hearing and reading is that learners receive far less support when listening to material than when working with the written word on the page. Listening necessitates 'real-time' language processing, and unlike reading, there is no straightforward way to check for meaning after the message has ended (Dana & Tagg, 1996).

In applied linguistics, comprehension skills research has received a lot of attention. Speaking, writing, listening, and reading, unlike productive talents, do not produce tangible results. This challenge appears to have hampered active research in comprehension skills, as hearing is the least explored of the four talents. This is disappointing that reading ability, compared to listening ability as its runner-up, frequently appeared on the top when it comes to the indication of how important the four language abilities are (Powers, 1986). This research focuses on one of the linguistic skills that have received the least amount of attention. Furthermore, unlike the great bulk of research on second language learning, on which the English language and adult learners have been focused, this study, instead puts emphasis on the Korean language and young learners. Such a boundary between the two comprehension abilities has not always been apparent. Some studies have proposed that listening and reading are different or linked skills. According to Levine and Revers (1988), reading and listening skills may be derived from a unitary element as

well as multiple sub-skills. They claim that the two receptive skills are built up from a single factor because both skills share an extent area to the same sub-skills and comprehension process, based on various studies and analyses about correlation and regression. However, some studies claim that reading and listening are separate skills since listening is a more "integrated" talent that entails a "greater holistic grasp of the message" than reading. 'Unfamiliar words may be ignored, but the main message is still obtained,' for example. Different patterns in processing, such as the use of reference and cohesion indicators (Levine and Revers, 1988), and a proper processing speed, can result from the variations between spoken and written discourse (Buck, 1992). Buck (1991) conducted a study that revealed that listening comprehension is a different trait from reading, contrary to Levine and Revers' statement that listening is deemed as a single factor and as an individual talent. Buck, on the other hand, claims in a 1992 study that there is evidence against the idea of promoting listening skills to be a separate trait. He based his argument on two studies, one of which suggested no significant trait effect but an intimate correlation of both traits, and the other study of which revealed a large trait effect. He continues to suggest that the implication regarding listening and reading can be distinguished based on just the substantial phenotypic effect observed in one study cannot necessarily be made. Applied linguists now consider that language competency is built on different components including but not limited to only grammar, pronunciation, and organization but also the four abilities to listen, reading, speaking, and writing. It is obvious that theories play a critical role in having an influence over the findings from research. As Bentler (1997) points out, the idea encompasses more than what data can reveal. Regardless of how conflicting the existing evidence about listening and reading may be, the two talents are thought to be independent in theory based on numerous levels (e.g., Richards, 1983). The difference between both linguistic skills has also been shown to be effective in practice. Many language teachers believe that each of the four talents requires a particular curriculum, and this differentiation has been effective in curriculum building. From both a theoretical and a practical standpoint, this separability is the driving force behind the current research.

CHAPTER III

RESEARCH METHODOLOGY

Research Methodology

Although English receptive skills are considered vitally important to several individuals in today's world and in the 21st century. However, little research within the EFL context of Thailand has addressed how English receptive skills can be effectively promoted by using the virtual learning in the flipped classroom prototype. To bridge this research gap, this study was designed based on a survey research and a quasi-experimental research design where data were collected in a classroom context over a certain period. To understand the whole research process, this section intended to describe the population and samples of this study. Next, the section attempted to explain instructional design and research materials. The section finished with the presentation of data collection procedures and analyses.

Population and Samples

The population and samples selected were discussed as follows:

The population in this study were the undergraduates enrolled in autonomous Thai higher education institutions in Thailand selected by the purposive sampling. The procedures for selecting the sample were as follows. Initially, eight autonomous universities were purposely selected from four regions of Thailand, namely North, Northeast, Southern, and Central. The 40 students in each university took the TOEIC test to measure their English receptive skills following the TOEIC levels. The average scores from this sample were used as the levels for selecting the 30 potential undergraduates who were studying English as a required general education subject at Prince of Songkla University which is one of the autonomous universities located in the South of Thailand as samples for the experiment.

The other groups of samples were the experts in teaching English for undergraduates in Thailand. They have evaluated the effectiveness of the developed prototype of the virtual learning implemented in flipped classrooms for developing Thai undergraduates' English receptive skills. Besides, the small group of 5 students was piloted for this prototype.

Instruments

According to objective no. 1 “to explore and analyze the level of English receptive skills of undergraduates studying in Thai higher education institutions”, the actual standardized Test of English for International Communication (henceforth TOEIC test) was employed to gauge the students' receptive skills. In this study, the actual standardized TOEIC was used for two purposes. First, it was used as a research instrument to measure the students' English receptive skills improvements. Second, it was employed as a tool for selecting the samples. The actual standardized TOEIC test consists of listening and reading tests. As a paper-based test, the TOEIC Listening, and Reading Test took approximately 2 hours and 30 minutes to finish. In the listening test which takes 45 minutes, there included 100 multiple-choice test items. The listening test was based on listening texts including photographs, question-response dialogues, conversations, and short talks. The reading test with 100 multiple-choice test items took 75 minutes. In this type of test, gap fills, paragraph completion, and reading comprehension were provided. Each candidate's total test score was calculated based on a scale between 10 and 990 points. An individual's actual standardized TOEIC test score can be grouped into the following criteria.

905 - 990 International Proficiency

785 – 900 Working Proficiency Plus

605 – 780 Limited Working Proficiency

405 – 600 Elementary Proficiency Plus

255 – 400 Elementary Proficiency

185 – 250 Memorized Proficiency

10 – 180 No Useful Proficiency

In conclusion, this study employed the actual standardized TOEIC test as a research instrument to measure the students' receptive skills performance. The test was administered before and after the treatment. Also, it was used as a placement test to select the current participants.

According to the objective no.2 “to evaluate the effectiveness of the developed prototype of the virtual learning implemented in flipped classroom in developing Thai undergraduates' English receptive skills” there were three forms of instruments applied in order that to achieve two objectives mentioned earlier as follows:

1. Reading rubrics

The reading rubrics were one of the research instruments which were applied for the authentic assessments. They were designed following the CEFR Reading Grids. The rating scales was in a holistic way which means any sub-skills of the reading skills were evaluated by this rubric holistically not in a single sub-skill in detail. The test-taker's performance was judged holistically. The rater did not give separate scores for different features of the performance, such as phonetics, fluency, or even the reading speech rate, yet the understanding of different reading tasks was considered.

2. Listening rubrics

In similarly to reading rubrics, the listening ones were designed following the CEFR Listening Grids which were focusing on the listening performance of understanding the different situations listening tasks such as listening to TV, news, videos and so on. The rating scales were in a holistic way. The rater did not solely rate the score from the multiple choices or yes/no questions, but other productive skills like writing or speaking tasks were assigned not for rating the productive skills themselves but the understanding of the listening tasks.

3. Virtual Tasks

There were two forms of virtual tasks which were the outside and inside of class virtual tasks. The tasks were reading assignments, listening assignments, group projects, games, discussion, debate, role-play, and other assignments for developing students' receptive skills.

Validating research instruments

To validate the contents in the prototype of virtual learning implemented in flipped classrooms for developing undergraduates' English receptive skills, they were reviewed by the advisors, and then validated by the three experts in the field of teaching, English language teaching, and the expert specialized in IT. In terms of the content validity of the prototype, three experts were asked to view the items in the questions to ensure the congruence and appropriateness of each item with what it measures and correctness of the use of language.

Index of Item Objective Congruence (IOC) was used to qualify the content validity of the instructional design. If an expert thinks the item was appropriate, 1 point was given to that item. If an expert thinks the item was not appropriate, -1 point was given to that item whereas if an expert was not sure about the appropriateness of the item, 0 point was given to that item. Thus, three experts have considered each item collaboratively and the mean score of each item was calculated to justify the appropriateness in using that item. The IOC mean score was between 0.00 – 1.00 whereas the mean score on each item equally to 0.5 was the minimal acceptance.

Research Procedure

There were four main steps of the research procedure in this study according to the objectives mentioned earlier. The steps were shown in Figure 11.

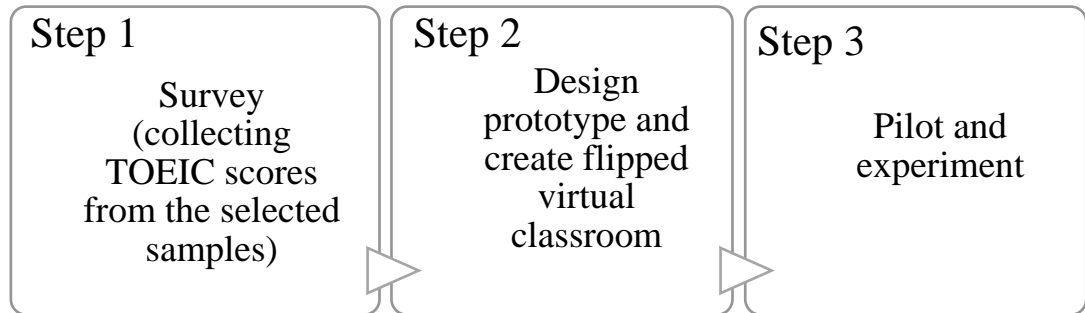


Figure 11 The Steps of the Research Procedure

Step 1. Survey

According to objective no. 1 “to explore and analyze the level of English receptive skills of undergraduates studying in Thai higher education institutions”, the survey of students’ level of English proficiency was employed in the first step. Students’ TOEIC scores were collected and analyzed.

Step 2. Design prototype and create flipped virtual classroom.

According to the objective no.2 “to evaluate the effectiveness of the developed prototype of the virtual learning implemented in flipped classrooms in developing Thai undergraduates’ English receptive skills”, the virtual learning (VL) was adopted to this experimental research. Figure 12 illustrates the procedures for conducting virtual learning lessons by means of the flipped classroom model to enhance Thai undergraduates’ English receptive skills.

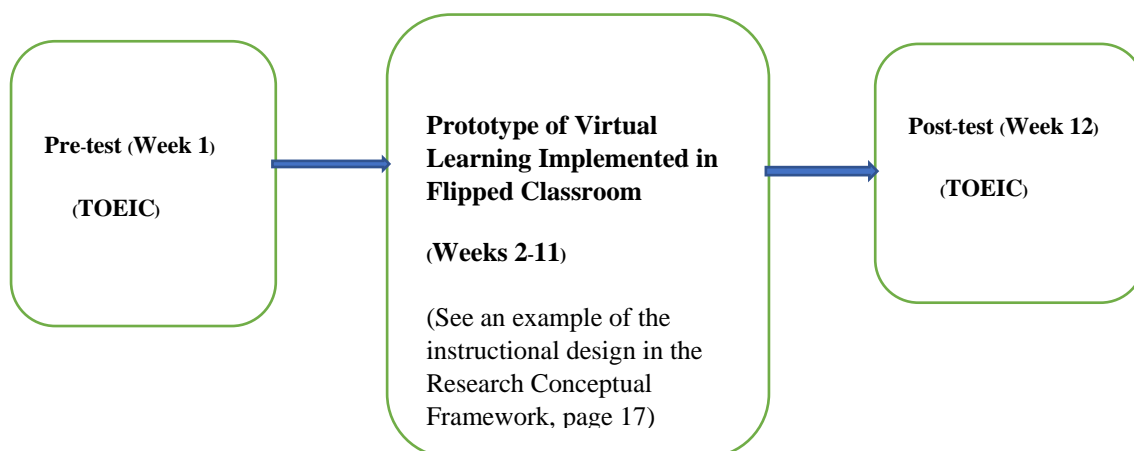


Figure 12 Procedures for the Research—Prototype of Virtual Learning Implemented in Flipped Classroom.

In Figure 12, a pre-test (actual standardized TOEIC) was administered to the students in Week 1. Between week 2 and 11, the prototype was implemented with 30 students. After the implementation of the prototype, a post-test (actual standardized TOEIC) was distributed to the students at the end of the class.

Step 3 Pilot study and experiment

According to the objective no. 3 “to evaluate the effectiveness of the developed prototype of the virtual learning implemented in flipped classrooms in developing Thai undergraduates’ English receptive skills”, the prototype was piloted with 10 undergraduates studying English as a General Education Subject. The major goal of carrying out a pilot study was to determine whether the prototype designed was highly effective. In other words, a pilot study was conducted to detect some possible errors regarding the prototype. After piloting, the experiment was conducted with the selected samples following the research procedure and the instruments mentioned earlier.

Data collection

The steps of collecting data in this study were as follows:

1. According to the objective no. 1, the researcher collected the actual standardized TOEIC scores of the students participating in this study and the scores were then analyzed. The average scores from this step were a means for selecting the samples in the objective no. 3 “to evaluate the effectiveness of the developed prototype of virtual learning as a tool implemented in flipped classroom in developing Thai undergraduates’ “English receptive skills.”

2. The prototype was designed before validating by the three experts who were specialized in teaching methodology, teaching English and the expert specialized in IT. They corrected and gave feedback concerning the prototype features.

3. To evaluate the effectiveness of the prototype, the researcher collected the data from the students’ pre-test which was the actual standardized TOEIC scores, the authentic assessments such as listening and reading rubrics, the assignments doing outside and inside of the classrooms, and the post-test-TOEIC scores at the end of the study.

Data analysis

The first set of the data collected from the actual standardized TOEIC scores of the students following the step 1—survey—in the research procedure was analyzed by ANOVA and the levels of proficiency from the scores were then compared to the TOEIC scale levels which had already been mentioned earlier. Another set of the data from pilot and experiment which was the actual standardized TOEIC pre-test and post-test scores to gauge the students’ learning performance through the virtual learning method in flipped instruction was calculated by a dependent t-test. However, the content analysis method was also employed to analyze the data from the authentic assessments during the experiment.

CHAPTER IV

THAI UNDERGRADUATE STUDENTS' ENGLISH RECEPTIVE SKILLS DEVELOPMENT

This chapter presents the findings analyzed from the data collection in accordance with the three main research questions as follows:

1. What is the level of English receptive skills of undergraduates' studying in Thai higher education institutions?
2. How to develop the prototype of virtual learning as a tool implemented in flipped classrooms in improving Thai undergraduates' English receptive skills?
3. How effective does the developed prototype of virtual learning implemented in flipped classroom impact on improving Thai undergraduates' English receptive skills?

Level of English Receptive Skills of Undergraduates' Studying in Thai Higher Education Institutions

In response to the research question of what level of English receptive skills of undergraduates' studying in Thai higher education institutions, the findings can be shown in the tables together with the explanation as follows:

Table 5 Results of Data Analyzed from Different Variables

Independent Variables	Language Skills	Variances of Variables	Sum of Squares	df	Mean Square	F	Sig.
Universities	Listening	between groups	69762.188	7	9966.027	4.498	.000
		within groups	691325.000	312	2215.785		
		Total	761087.188	319			

Independent Variables	Language Skills	Variances of Variables	Sum of Squares	df	Mean Square	F	Sig.
	Reading	between groups	51898.047	7	7414.007	4.728	.000
		within groups	489220.625	312	1568.015		
		Total	541118.672	319			
	TOEIC Total	between groups	226032.422	7	32290.346	5.422	.000
		within groups	1858016.875	312	5955.182		
		Total	2084049.297	319			
Genders	Listening	between groups	17306.523	1	17306.523	7.399	.007
		within groups	743780.664	318	2338.933		
		Total	761087.187	319			
	Reading	between groups	11203.239	1	11203.239	6.723	.010
		within groups	529915.433	318	1666.401		
		Total	541118.672	319			
	TOEIC Total	between groups	56358.576	1	56358.576	8.839	.003
		within groups	2027690.721	318	6376.386		
		Total	2084049.297	319			

Independent Variables	Language Skills	Variances	Sum of Squares	df	Mean Square	F	Sig.
Years of Study	Listening	between groups	3198.896	2	1599.448	.669	.513
		within groups	757888.291	317	2390.815		
		Total	761087.188	319			
	Reading	between groups	971.098	2	485.549	.285	.752
		within groups	540147.574	317	1703.936		
		Total	541118.672	319			
	TOEIC Total	between groups	5957.619	2	2978.809	.454	.635
		within groups	2078091.678	317	6555.494		
		Total	2084049.297	319			
Fields of Study	Listening	between groups	31350.039	1	31350.039	13.662	.000
		within groups	729737.148	318	2294.771		
		Total	761087.187	319			
	Reading	between groups	27365.771	1	27365.771	16.939	.000
		within groups	513752.901	318	1615.575		
		Total	541118.672	319			
	TOEIC Total	between groups	117296.284	1	117296.284	18.965	.000
		within groups	1966753.013	318	6184.758		
		Total	2084049.297	319			

After the data were analyzed, it can be clearly seen in Table 6 that all variables in this study (universities, genders, years of study, and fields of study) compared both between groups and within groups of language skills, listening, reading, and both skills, have significant difference. Therefore, they can be illustrated in the following tables.

Table 6 Collected Data Categorized by Universities

Universities	Listening Scores				Reading Scores				Total TOEIC Scores			
	S.D.	Mean	Min	Max	S.D.	Mean	Min	Max	S.D.	Mean	Min	Max
North Uni1	45.325	199.63	120	275	43.030	141.00	75	220	80.997	340.63	200	490
North Uni2	56.295	194.13	50	295	37.398	132.88	65	210	82.693	327.00	165	490
NE Uni1	34.964	233.25	155	300	32.929	161.25	105	230	54.347	394.50	280	495
NE Uni2	55.132	199.50	50	290	46.241	139.50	65	220	92.294	339.00	165	490
Cen Uni1	43.764	222.25	125	300	37.510	153.88	75	230	73.984	376.13	200	495
Cen Uni2	46.029	185.75	120	275	35.956	126.63	70	195	73.441	312.38	190	440
South Uni1	45.445	205.88	130	315	40.143	125.25	75	210	75.723	331.13	225	475
South Uni2	46.278	194.88	105	310	41.955	124.75	60	200	78.548	319.63	180	495
Total	48.845	204.41	50	315	41.186	138.14	60	230	80.827	342.55	165	495

Collected Data Categorized by Universities

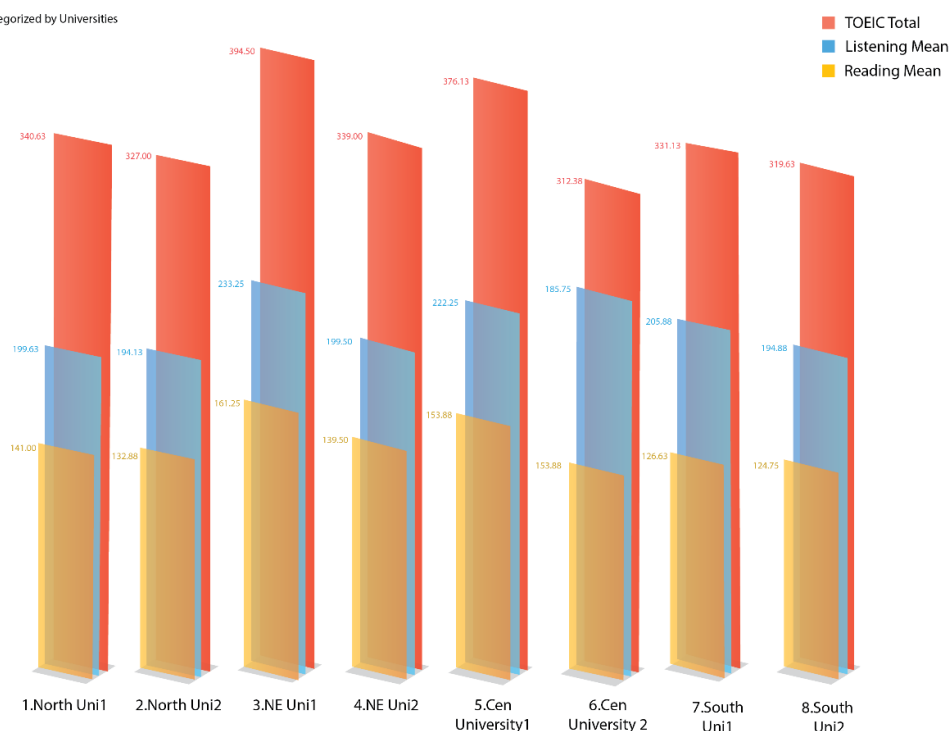


Figure 13 Mean Scores of Each University in Listening, Speaking and Total TOEIC Scores

Table 5 and Figure 13 show that there were students from eight different universities in Thailand randomly selected to participate in this study which were two from each region, the north, north-east, central, and the south of Thailand. There were 40 students from each university participating in this study which were totally 320 students. After collecting the data of the students' TOEIC listening scores, the mean of the scores was 204.41 which the north-east university 2 (NE Uni 2) was ranked the highest at 233.25, and the lowest was the central university 2 (Cen Uni 2) at 185.75. Though the north-east university 2 was ranked the highest of the mean scores, the highest listening score was the student from the south university 2 (SO Uni 2), 315 scores, and the lowest from the university from the north 1 (NO Uni 1) and the north-east university 2 (NE Uni 2), 50 scores. In terms of reading scores, the mean of the scores was 138.14 which the north-east university 1 (NE Uni 1) was ranked the highest at 161.25, and the lowest was the south university 2 (SO Uni 2) at 124.75. Though the north-east university 1 was ranked the highest of the mean scores, the highest reading scores were the students from the north-east university 1 (NE Uni 1), and the central university 1 (CEN Uni 1), 230 scores, and the lowest from the university from the south 2 (SO Uni 2), 60 scores. The TOEIC total mean score is 342.55 which the lowest is 165 and the highest is 495 out of 990.

Table 7 Collected Data Categorized by Genders

Genders	Listening Scores				Reading Scores				Total TOEIC Scores			
	S.D.	Mean	Min	Max	S.D.	Mean	Min	Max	S.D.	Mean	Min	Max
Males	45.295	194.17	120	290	40.751	129.91	60	220	79.350	324.08	180	475
Females	49.867	209.69	50	315	40.858	142.39	65	230	80.110	352.09	165	495
Total	48.845	204.41	50	315	41.186	138.14	60	230	80.827	342.55	165	495

Collected Data Categorized by Genders

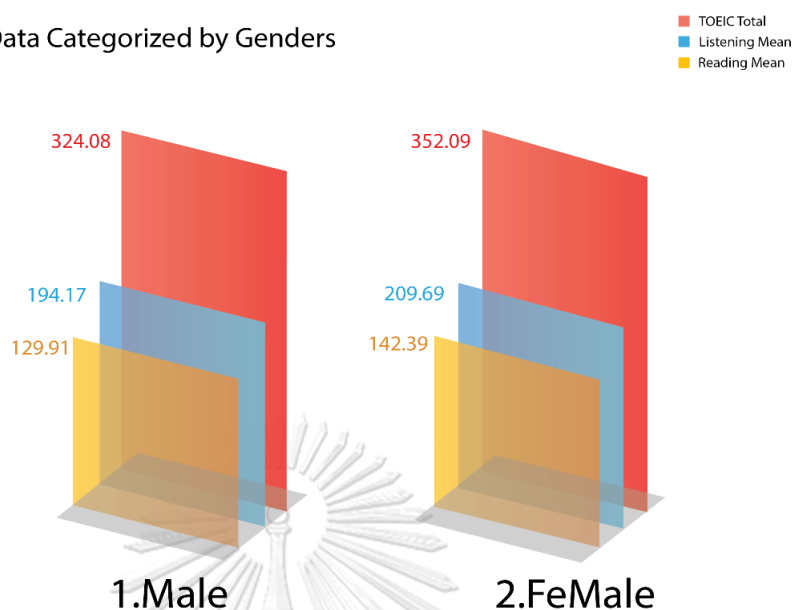


Figure 14 Mean Scores of Each Gender in Listening, Speaking and Total TOEIC Scores

Table 7 and Figure 14 portray the data collected categorized by the students' genders. The total number of the students in this study were totally 320, 109 males, and other 211 females. We can clearly see that the mean scores of listening of the females is higher than that of males at 209.69 and 194.17 respectively which are from the total mean scores of 204.41. Nevertheless, both highest and lowest scores of listening are 315 and 50, respectively. They both were from the females. In terms of reading scores, the mean score is 138.14 which is lower than that of listening, and the highest score was done by the female at 230 and the lowest was from the male at the score of 60. The total TOEIC mean score of the female is higher than that of males at 352.09 and 324.08, respectively. Both highest and lowest scores were done by the females at 495 and 165, respectively.

Table 8 Collected Data Categorized by Student Year of Study

Years of Study	Listening Scores				Reading Scores				Total TOEIC Scores			
	S.D.	Mean	Min	Max	S.D.	Mean	Min	Max	S.D.	Mean	Min	Max
Year 1	49.547	207.62	50	315	38.119	138.41	70	220	76.671	346.03	165	490
Year 2	49.283	202.97	50	310	44.078	139.68	60	230	84.991	342.66	165	495
Year 3	46.669	199.61	115	310	43.131	134.84	65	220	83.286	334.45	190	495
Total	48.845	204.41	50	315	41.186	138.14	60	230	80.827	342.55	165	495

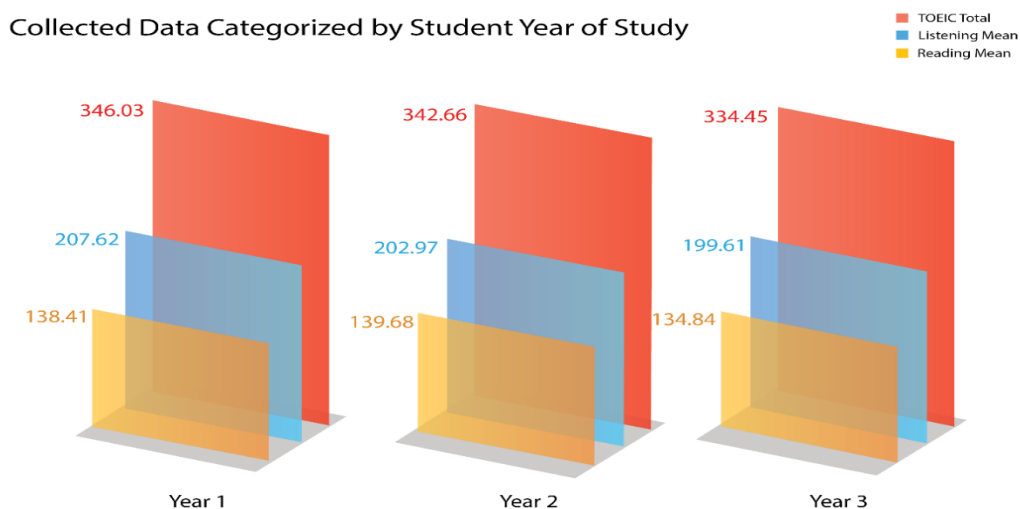


Figure 15 Mean Scores of Students Categorized by Their Years of Study in Listening, Speaking and Total TOEIC Scores

Another category of the data collected is considered from the students' year of study. Table 8 and Figure 15 clearly illustrates that the participants in this study were from three groups of the students, freshmen, sophomores, and the junior students. The listening mean score of the freshmen was ranked the highest at 207.62 while the other two from the sophomores and the juniors were lower at 202.97 and 199.61, respectively. Interestingly, both highest and lowest scores were done by the freshmen at 315 and 50, respectively. In terms of reading, the highest mean score of the reading was done by the sophomores at 139.68, but the lowest was from the juniors though both highest and lowest scores were done by the sophomores at 230 and 60 scores, respectively. However, the total TOEIC mean score of the freshmen was ranked highest and the Junior's was the lowest (346.03 and 334.45) respectively. Surprisingly, the total highest and lowest scores were done by sophomores at 495 and 165, respectively.

Table 9 Collected Data Categorized by Fields of Study

Fields of Study	Listening Scores				Reading Scores				Total TOEIC Scores			
	S.D.	Mean	Min	Max	S.D.	Mean	Min	Max	S.D.	Mean	Min	Max
Soc Science	50.648	215.92	105	300	42.329	148.90	70	220	85.237	364.82	180	490
Science	45.774	195.90	50	315	38.544	130.19	60	230	73.400	326.09	165	495
Total	48.845	204.41	50	315	41.186	138.14	60	230	80.827	342.55	165	495

Collected Data Categorized by Fields of Study

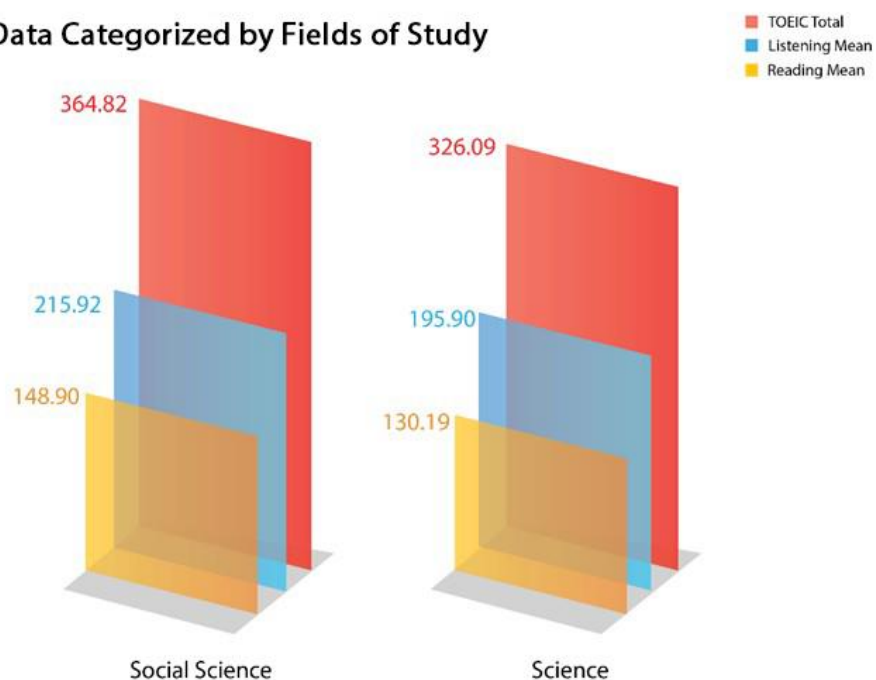


Figure 16 Mean Scores of Students Categorized by Their Fields of Study in Listening, Speaking and Total TOEIC Scores

Table 9 and Figure 16 show the data collected categorized by different fields of study of the students. They were from different fields of social science and science. There were 184 students from science and the other 136 were from social science major. We can clearly see that the highest mean score of both listening and reading were done by the social science students at 215.92 and 148.90, respectively. However, both highest and lowest scores of both listening and reading skills were done by the students from fields of science, which is similarly to the highest and lowest total TOEIC scores at 495 and 165 respectively though the highest total TOEIC mean score was at 364.82 done by the student from social science.

Table 10 University Variable Results of Listening TOEIC Scores Analyzed by ANOVA and Dunnett T3 Paired Samples t-Test.

Variables	\bar{x} Listening	North Uni1	North Uni2	NE Uni1	NE Uni2	Cen Uni1	Cen Uni2	South Uni1	South Uni2
North Uni1	199.63	-							
North Uni2	194.13	-5.500	-						
NE Uni1	233.25	33.625*	39.125*	-					
NE Uni2	199.50	-.125	5.375	-33.750*	-				
Cen Uni 1	222.25	22.625	28.125	-11.000	22.750	-			
Cen Uni 2	185.75	-13.875	-8.375	-74.500*	-13.750	-36.500*	-		
South Uni1	205.88	6.250	11.750	-27.375	6.375	-16.375	20.125	-	
South Uni2	194.88	-4.750	.750	-38.375*	-4.625	-27.375	9.125	-11.000	-

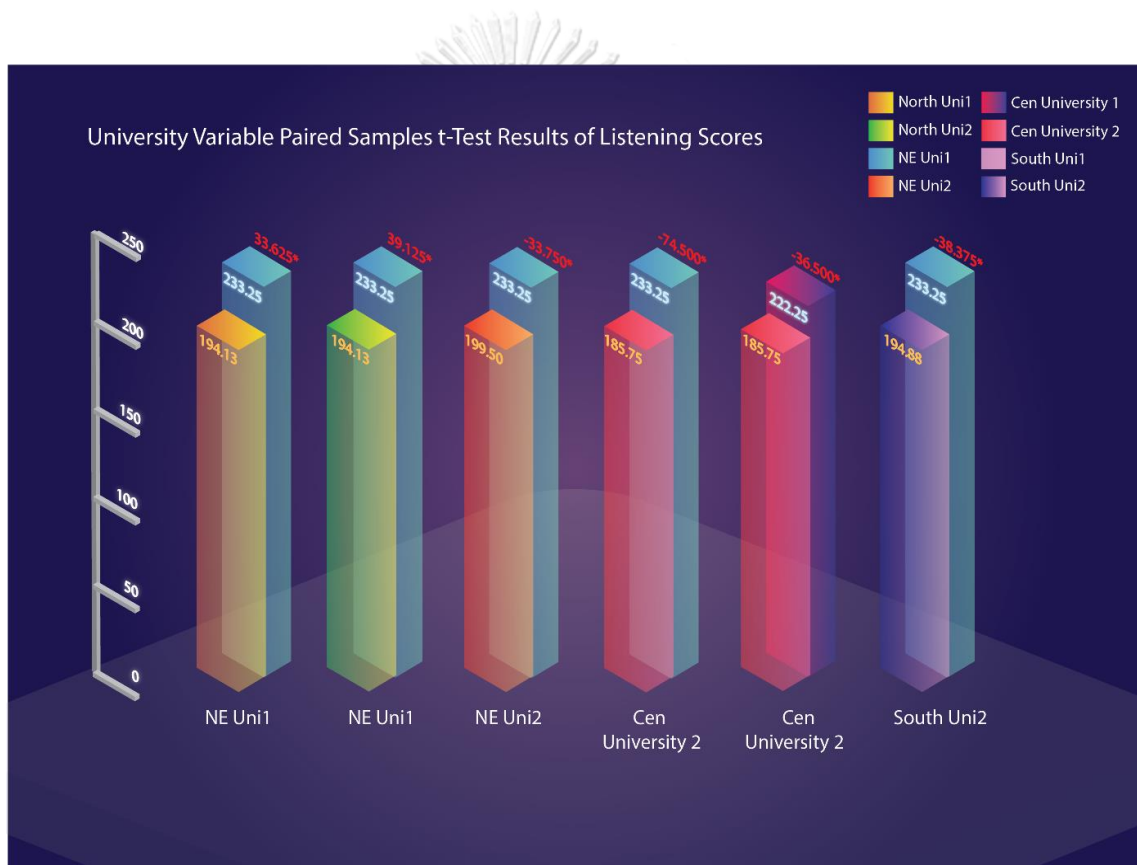


Figure 17 Students in Each University t-Test Results of Listening Scores

Table 10 and Figure 17 show the results of the listening scores of the students compared by eight different universities analyzed by applying Dunnett T3 paired samples t-Test. We can clearly see that the north-east university 1 has a different statistic significant at .05 from the university in the north 1. To illustrate, the listening mean score of the north-east university 1 (233.25) is higher than that of the north university 1 (199.63). Also, the north-east university 1 listening mean score has a

different statistic significant at .05 compared to the north university 2 which the score of the north-east university (233.25) is higher than that of the north university 2 (194.13). Moreover, the table portrays that the north-east university 2 has a different statistic significant at .05 from the university in the north-east 1. To be more specific, the listening mean score of the north-east university 1 (233.25) is higher than that of the north-east university 2 (199.50). Comparing the central university 2 and the north-east university 1, there is a significant different mean score of listening at .05 which the listening mean score of the north-east university 1 (233.25) is higher than that of the central university 2 (185.75). Besides, the central university 2 has a different statistic significant at .05 from the central university 1 which the listening mean score of the central university 1 (222.25) is higher than that of the central university 2 (185.75). In addition, the south university 2 has a different statistic significant at .05 from the north-east university 1 which the listening mean score of the north-east university 1 (233.25) is higher than that of the south university 2 (194.88). However, there are not any significant differences in other paired variables.

Table 11 University Variable Results of Reading TOEIC Scores Analyzed by ANOVA and Dunnett T3 Paired Samples t-Test.

Variables	\bar{x} Reading	North Uni1	North Uni2	NE Uni1	NE Uni2	Cen Uni1	Cen Uni2	South Uni1	South Uni2
North Uni1	141.00	-	-	-	-	-	-	-	-
North Uni2	132.88	-8.125	-	-	-	-	-	-	-
NE Uni1	161.25	20.250	28.375*	-	-	-	-	-	-
NE Uni2	139.50	-1.500	6.625	-21.750	-	-	-	-	-
Cen Uni1	153.88	12.875	21.000	-7.375	14.375	-	-	-	-
Cen Uni2	126.63	-14.375	-6.250	-34.625*	-12.875	-27.250	-	-	-
South Uni1	125.25	-15.750	-7.625	-36.000*	-14.250	-28.625*	-1.375	-	-
South Uni2	124.75	-16.250	-8.125	-36.500*	-14.750	-29.125*	-1.875	-0.500	-

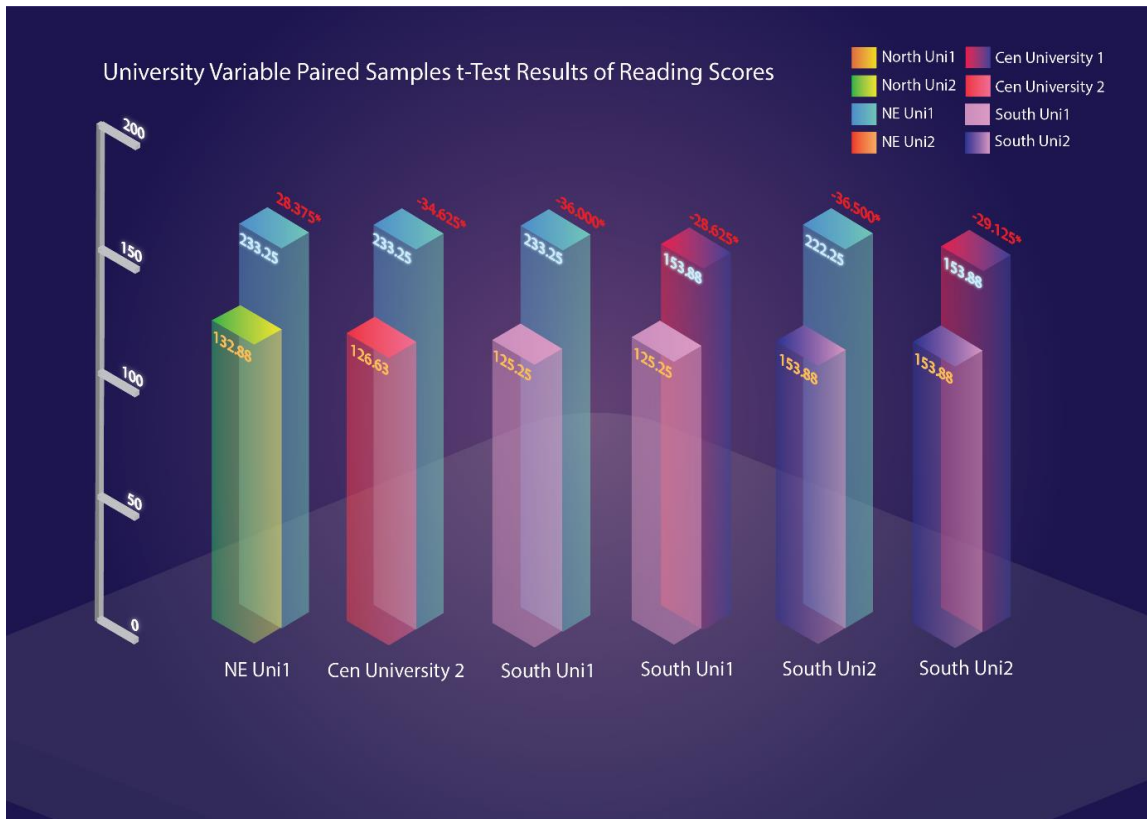


Figure 18 Students in Each University t-Test Results of Reading Scores

Table 11 illustrates the results of the reading scores of the students compared by eight different universities analyzed by applying Bonferroni paired samples t-Test. We can clearly see that the north-east university 1 has a different statistic significant at .05 from the university in the north 2. To illustrate, the reading mean score of the north-east university 1 (161.25) is higher than that of the north university 2 (132.88). Also, the central university 2 reading mean score has a different statistic significant at .05 compared to the north-east university 1 which the score of the north-east university 1 (161.25) is higher than that of the central university 2 (126.63). Moreover, the table portrays that the south university 1 has a different statistic significant at .05 from the university in the north-east 1. To be more specific, the reading mean score of the north-east university 1 (161.25) is higher than that of the south university 1 (125.25). Comparing the south university 1 and the central university 1, there is a significant different mean score of reading at .05 which the reading mean score of the central university 1 (153.88) is higher than that of the south

university 1 (125.25). Besides, the south university 2 has a different statistic significant at .05 from the north-east university 1 which the reading mean score of the north-east university 1 (161.25) is higher than that of the south university 2 (124.75). In addition, the south university 2 has a different statistic significant at .05 from the central university 1 which the reading mean score of the central university 1 (153.88) is higher than that of the south university 2 (124.75). However, there are not any significant differences in other paired variables.

Table 12 University Variable Results of Total TOEIC Scores Analyzed by ANOVA and Dunnett T3 Paired Samples t-Test.

Variables	\bar{x} Total TOEIC	North Uni1	North Uni2	NE Uni1	NE Uni2	Cen Uni1	Cen Uni2	South Uni1	South Uni2
North Uni1	340.63	-							
North Uni2	327.00	-13.625	-						
NE Uni1	394.50	53.875*	67.500*	-					
NE Uni2	339.00	-1.625	12.000	-55.500*	-				
Cen Uni1	376.13	35.500	49.125	-18.375	37.125	-			
Cen Uni2	312.38	-28.250	-14.625	-82.125*	-26.625	-63.750*	-		
South Uni1	331.13	-9.500	4.125	-63.375*	-7.875	-45.000	18.750	-	
South Uni2	319.63	-21.000	-7.375	-74.875*	-19.375	-56.500*	7.250	-11.500	-

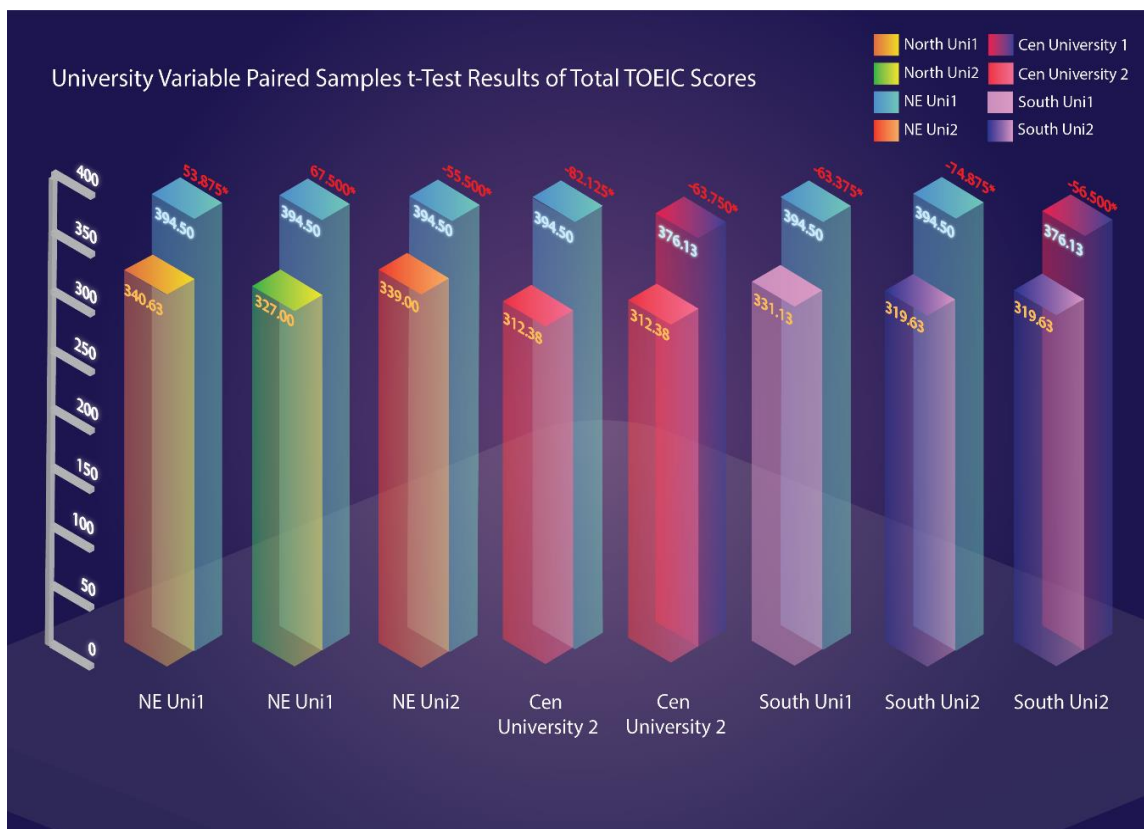


Figure 19 Students in Each University t-Test Results of Total Scores

Table 12 and Figure 19 show the results of the total TOEIC scores of the students compared by eight different universities analyzed by applying Dunnett T3 paired samples t-Test. We can clearly see that the north-east university 1 has a different statistic significant at .05 from the university in the north 1. To illustrate, the total TOEIC mean score of the north-east university 1 (394.50) is higher than that of the north university 1 (340.63). Also, the north-east university 1 listening mean score has a different statistic significant at .05 compared to the north university 2 which the score of the north-east university 1 (340.63) is higher than that of the north university 2 (327.00). Moreover, the table portrays that the north-east university 2 has a different statistic significant at .05 from the university in the north-east 1. To be more specific, the total TOEIC mean score of the north-east university 2 (339.00) is higher than that of the north-east university 1 (394.50). Comparing the central university 2 and the north-east university 1, there is a significant different mean score of listening at .05 which the total TOEIC mean score of the north-east university 1 (340.63) is higher

than that of the central university 2 (312.38). Besides, the central university 2 has a different statistic significant at .05 from the central university 1 which the total TOEIC mean score of the central university 1 (376.13) is higher than that of the central university 2 (312.38). In addition, the south university 1 has a different statistic significant at .05 from the north-east university 1 which the total TOEIC mean score of the north-east university 1 (394.50) is higher than that of the south university 1 (331.13). Also, the south university 2 has a different statistic significant at .05 from the north-east university 1 which the total TOEIC mean score of the north-east university 1 (394.50) is higher than that of the south university 2 (319.63). Moreover, the south university 2 has a different statistic significant at .05 from the central university 1 which the total TOEIC mean score of the central university 1 (376.13) is higher than that of the south university 2 (319.63). However, there are not any significant differences in other paired variables.

Table 13 Gender Variable Results of Total TOEIC Scores Analyzed by ANOVA and Dunnett T3 Paired Samples t-Test.

Variables	\bar{x}	Male	Female	Variables	\bar{x}	Male	Female	Variables	\bar{x}	Male	Female
	Listening				Reading				Total TOEIC		
Male	194.17	-	-15.518*	Male	129.91	-	-12.485*	Male	324.08	-	-28.003*
Female	209.69	-	-	Female	142.39	-	-	Female	352.09	-	-

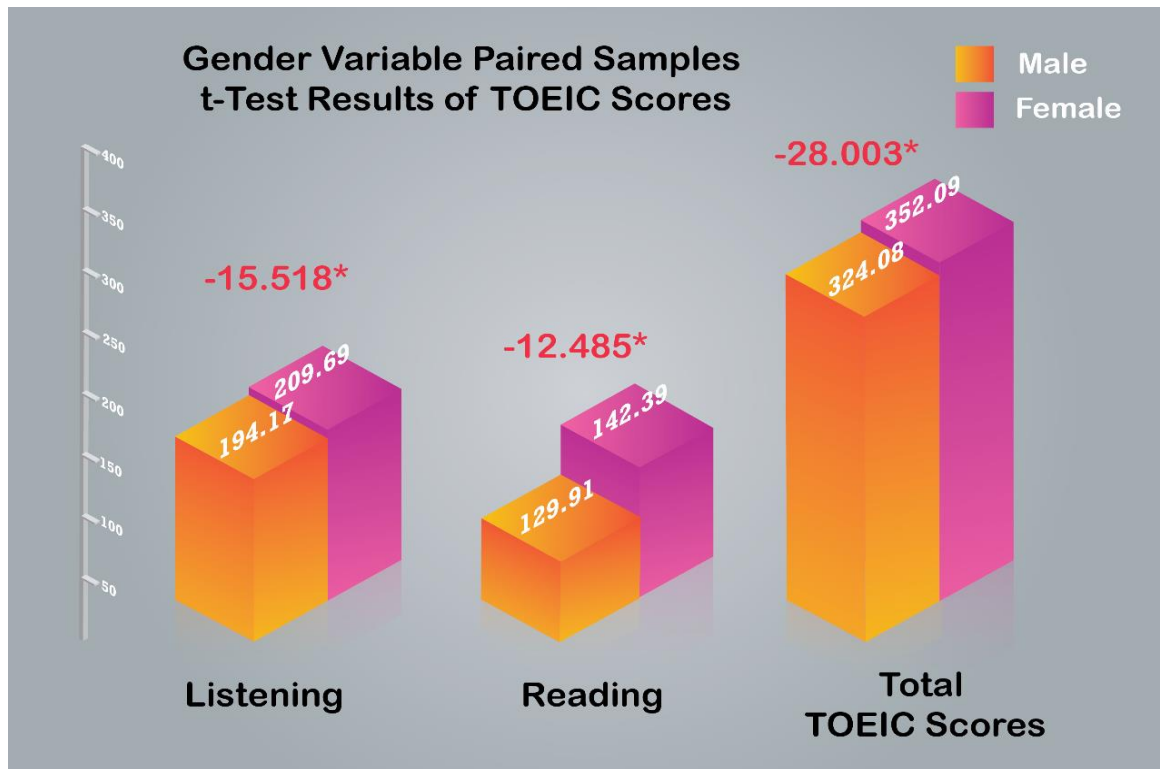


Figure 20 Students in Different Gender t-Test Results of Listening, Reading and Total TOEIC Scores

Table 13 and Figure 20 show the mean scores in each different variable clearly. To be more specific, the female students in this study have done the higher scores than that of males in all mean scores, listening, reading and the total TOEIC scores, with a different statistic significant at .05. That is to say, the female listening mean score of 209.69 is higher than that of males, 194.17. Also, females have done better in the reading part as their mean score is 142.39 which is higher than males', 129.91. Therefore, the female total TOEIC mean score of 352.09 is higher than males', 324.08.

Table 14 Fields of Study Variable Paired Samples t-Test Results of TOEIC Scores

Variables	\bar{x} Listening	Social science	Science	Variables	\bar{x} Reading	Social science	Science	Variables	\bar{x} Total TOEIC	Social science	Science
Social science	215.92	-	20.022*	Social science	148.90	-	18.707*	Social science	364.82	-	38.729*
Science	195.90	-	-	Science	130.19	-	-	Science	326.09	-	-

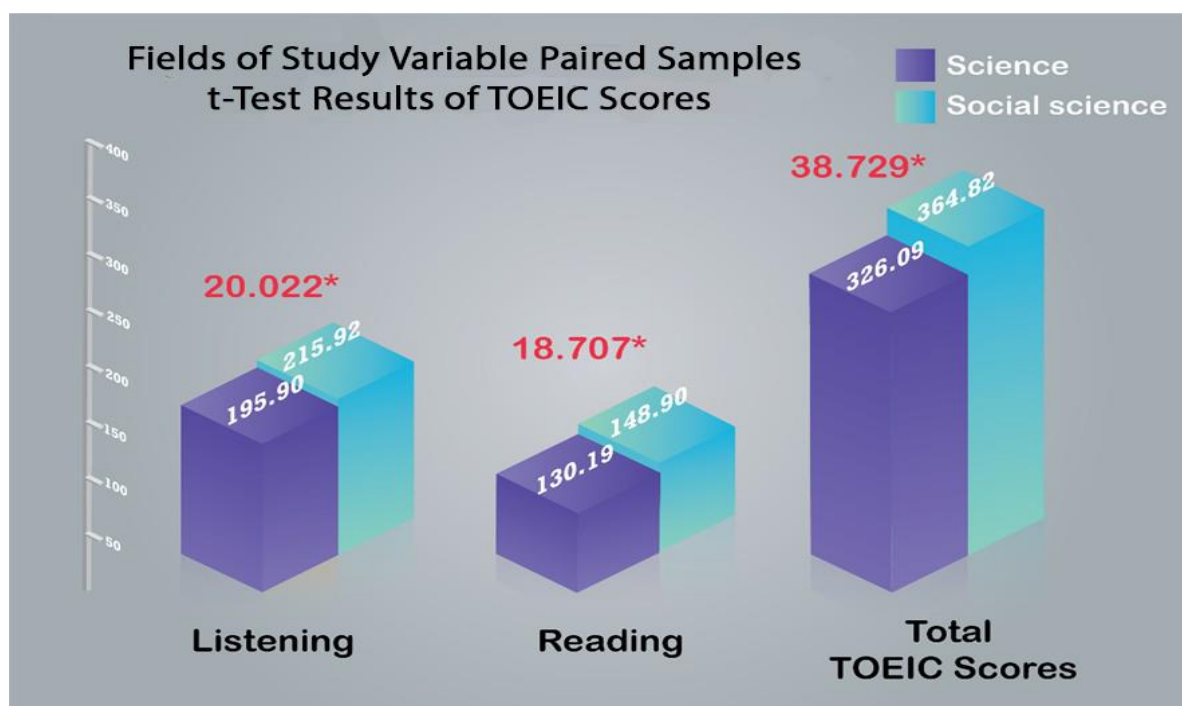
**Figure 21** Students in Different Fields of Study t-Test Results of Listening, Reading and Total TOEIC Scores

Table 13 and Figure 21 clearly show the mean scores of different variables of the students' fields of study. To be more specific, the students studying in the field of social science have done the higher scores than that of the science students in all mean scores, listening, reading and the total TOEIC scores, with a different statistic significant at .05. That is to say, the social science student listening mean score of 215.92 is higher than that of science students', 195.90. Also, the students studying in social science have done better in the reading part as their mean score is 148.90 which is higher than science students', 130.19. Therefore, the social science student total TOEIC mean score of 364.82 is higher than science students', 326.09.

Though the years of study variable has been analyzed by Dunnett T3 Paired Samples t-Test, the results shows that there are no significant different between or within the variables themselves. Therefore, the numbers of year students spent at the university have not affected the students' proficiency in English receptive skills.

Over all, the results from this study show that the total average English TOEIC scores of the students participated in this study was lower than the required scores set by Thai university between 450 and 600 scores for graduation though a great change of Thai curriculum concerning the English language learning to be started at the upper elementary level was launched in 1960 (Khamkhien, 2010) and Thai government pushed a substantial effort to promote any teaching methodology to improve Thai students' level of English proficiency (Khamkhien, 2006), the failure of this effort were very obvious as mentioned in many studies by Bolton (2008) and Wiriyachitra (2001). It can be more clearly seen from the average scores collected from the students from eight different universities in Thailand located in different regions, the north, north-east, central, and the south of Thailand which was lower than expected.

In terms of listening skills, the TOEIC listening mean of the scores was 204.41 which the north-east university 2 was ranked the highest at 233.25, and the lowest was the central university 2 at 185.75. Though the north-east university 2 was ranked the highest of the mean scores, the highest listening score was the student from the south university 2, 315 scores, and the lowest from the university from the north 1 and the north-east university 2, 50 scores.

Similarly, the mean of the reading scores was also lower than that of required by the university regulation. The study has shown the results of the reading TOEIC mean scores of the students participated in this study was 138.14 which the north-east university 1 was ranked the highest at 161.25, and the lowest was the south university 2 at 124.75. Though the north-east university 1 was ranked the highest of the mean scores, the highest reading scores were the students from the north-east university 1, and the central university 1, 230 scores, and the lowest from the university from the south 2, 60 scores. In summary, the students participated in this study had poor receptive skills as the TOEIC total mean score of 342.55, the lowest is 165 and the highest is 495 out of 990 which can be considered at the level of Elementary

Proficiency (255-400) which and lower than the university requirement of not less than 450 total TOEIC scores). These results were similarly confirmed by Khamkhien (2010) that the scores of two international standardized tests: TOEFL and TOEIC, Thai test takers' scores were significantly low, compared to those of Southeast Asian countries. In other words, the average scores of the Thai students in this study can be considered as the "Basic User" level following The Common European Framework of Reference (CEFR) between A1-A2 levels which the A1 users are considered as the ones who can understand and use familiar everyday expressions and considerably basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/ she knows and things she/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help while the A2 lever users can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g., considerably basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.

These phenomena have been arisen when learning a new language learners tend to develop their receptive skills first and then acquire productive capability. It is a complex relationship between the two as they all play a supporting role with developing other skills. For example, reading skills can be a supporting factor to the development of writing, whereas listening can improve speaking fluency. Developing receptive skills can be particularly challenging especially when communicating with a fluent or native speaker. Although starting a conversation may be done with relative ease, maintaining one poses greater challenges. Most likely learners may not recognize features of connected speech or idiomatic language which may lead to an unsuccessful interaction. As similarly to the reading, if the language or grammar is too complicated, it makes the text unintelligible. The key difference between listening and reading is that when learners listen to information, they have much less support than when they are working with the written word on the page. Listening requires 'real-time' processing of language, and once the message has finished, there is no

easy way to go back and check for meaning, as there is during reading (Dana & Tagg, 1996).

This can be confirmed by the negative feedback from the employers which mentioned that the fresh undergraduates are still lack of the communicative skills especially English language communication skills both reading and listening skills. The employers' perspectives on six most important expectation factors they considered when recruiting the graduate ranked as communication skills the first most problematic compared to other knowledge such as general knowledge, personality, computer skills, and practical experience. The employers do not consider professional experience or special knowledge from the graduates as there can be differences of the immediate environments and time commitments to other activities that drive an individual away from gaining the optimal quantity of general knowledge. (Weligamage & Siengthai, 2003). This phenomenon has been being discussed why it repeatedly happened till now. One of the main problems needed to be solved is language teaching time in the classroom is inadequate for the students to master the skills since they are required an outside classroom practice independently (Dickinson, 1995). Even though the language teachers have been struggling in teaching their students to master the skills within a limited time in the class, the students finally do not fully develop their language skills as fully as expected. Another significant factor negatively affected language development while learning in the classroom is the students' engagement. Numerous literatures consistently point to the need to rethink what is taking place in the classroom. Research shows that students' attention declines substantially and steadily after the first 10 minutes of class and that the average attention span of a student is 15 to 20 minutes at the beginning of class (Hartley & Cameron, 1967). Although students' attention returns in the last few minutes of class, they remember only 20% of the material presented during that time (Hartley & Davies, 1978). Furthermore, passive learning in hourlong lectures often bores students and can deprive them of rich educational experiences.¹⁶ Students can read and learn information on their own, but they need instructors to act as coaches and mentors to stimulate and challenge their thinking, guide them, and encourage their learning and application of the material (Bishop & Verleger, 2013).

Developing the Prototype of Virtual Learning as a Tool Implemented in Flipped Classrooms in Improving Thai Undergraduates' English Receptive Skills

After analyzing the data in the first objective of the study, the results have been applied to purposively select the samples and design the prototype for developing students' English receptive skills. In response to the second research question of how to develop the prototype of virtual learning as a tool implemented in flipped classrooms in improving Thai undergraduates' English receptive skills, the prototype and its procedure has been designed and validated by the experts. The prototype has been evaluated for their validation by the three experts from three different fields, namely, education, educational technology, and English teaching. The Index of Item Objective Congruence (IOC) was used to qualify the content validity of the prototype in three items; virtual platforms applied in the prototype, the steps and the virtual tasks in the prototype, and virtual tasks and the skills to be evaluated in each step. If an expert thinks the item is appropriate, 1 point will be given to that item. If an expert thinks the item is not appropriate, -1 point will be given to that item whereas if an expert is not sure about the appropriateness of the item, 0 point will be given to that item. Thus, three experts have considered each item collaboratively and the mean score of each item has been calculated. The IOC mean score was between 0.00 – 1.00 whereas the mean score on each item equally to 0.5 was the minimal acceptance. In brief, the IOC index evaluation rated by the experts indicated that 100% of the items were rated higher than 0.5 of the IOC Index, meaning that they were acceptably congruent with each aspect. The prototype has been, therefore, applied in the next research procedure. The prototype designed can be described as follows:



Figure 22 Prototype of Virtual Learning Implemented in Flipped Classroom for Developing English Receptive Skills

Step 1 Introduction to inform the students (use only one time- first week)

Before the students are asked to start learning and developing their receptive skills following the lesson plans designed in the step 2, they all have been introduced the lessons, the classroom regulations and how the class is going to be instructed while distributing the course syllabus as a reference. They were also introduced the virtual learning (VL) platforms, Second Life, VR Chat, and Classtart, and asked to register each VL platform in order that the students are ready for the next following classes. On top of that, they were asked to take the TOEIC exam as a pre-test before the class starts.

Step 2 Instructional design (10 weeks)

In this step, the researcher has prepared all the lesson plans and its details. To be more specific, there are 10 lesson plans included in this prototype, and they are divided into two main sections, its lesson plan and instructional plan. The first section includes of the lesson title, the subject area which is English, and applied similarly to all lessons together with the education level, undergraduates. The time needed in each lesson is 120 minutes. The lesson also mentions about the language skill either listening or reading focused in each lesson preceding its materials applied, learning resources and assessments. In terms of the instructional plan, there are two main stages in each lesson. The stage one itself is about studying virtually at home as a pre-class and after class through specific virtual learning platform, the Classtart by themselves while the stage two is concerning the in-virtual-class through the virtual learning platforms, Second Life or VR Chat. To be more specific, the stage two includes of three main steps. The first step is about the teacher student discussion session while the following step is concerning the teacher guided virtual activities. The last step in the stage two is about giving feedback session after having virtual activity in step two.

Step 3 Post-evaluation (Last week)

After the ten weeks of the experiment following the lesson plans mentioned earlier, the students were asked to take the post-evaluation exam which was the

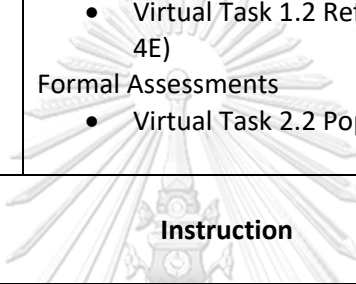
TOEIC test, and the scores will be compared to the pre-test done in the step one. This step is purposively for evaluating the effectiveness of the prototype mentioned in the third objective of how effective the developed prototype of virtual learning implemented in flipped classroom in improving Thai undergraduates' English receptive skills is.

Lesson Plans

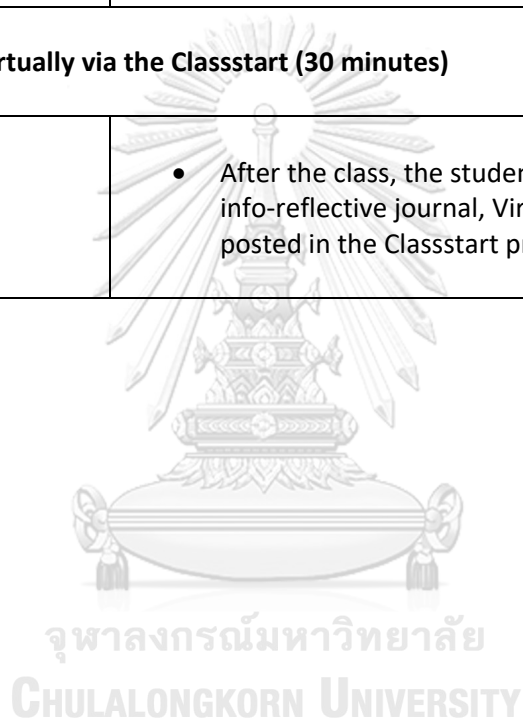
In step 2 of instructional design for the prototype, the 10 lesson plans have been designed by applying the concepts of flipped classroom and the virtual platforms such as the Second Life, VRChat, and the Classtart. The first section of the lesson plan includes of the lesson title, the subject area which is English, and applied similarly to all lessons together with the education level, undergraduates. The time needed in each lesson is 120 minutes. The lesson also mentions about the language skill either listening or reading focused in each lesson preceding its materials applied, learning resources and assessments. In terms of the instructional plan, there are two main stages in each lesson. The stage one itself is about studying virtually at home as a pre-class and after class through specific virtual learning platform, the Classtart by themselves while the stage two is concerning the in-virtual-class through the virtual learning platforms, Second Life or VR Chat. To be more specific, the stage two includes of three main steps. The first step is about the teacher student discussion session while the following step is concerning the teacher guided virtual activities. The last step in the stage two is about giving feedback session after having virtual activity in step two. Before employing these lesson plans into the research, they have been evaluated for their validation by the three experts from three different fields, namely, education, educational technology, and English teaching. The Index of Item Objective Congruence (IOC) was used to qualify the content validity of the lesson plans in three items; virtual platforms applied in each step in the lesson plans, virtual tasks applied in each step in the lesson plans, and virtual tasks and the skills to be evaluated. If an expert thinks the item is appropriate, 1 point will be given to that item. If an expert thinks the item is not appropriate, -1 point will be given to that item whereas if an expert is not sure about the appropriateness of the item, 0 point will be given to that item. Thus, three experts have considered each item collaboratively and

the mean score of each item has been calculated. The IOC mean score was between 0.00 – 1.00 whereas the mean score on each item equally to 0.5 was the minimal acceptance. After evaluating by the experts, the IOC index indicated that 100% of the items were rated higher than 0.5 of the IOC Index, meaning that they were acceptably congruent with each aspect. The prototype has been, therefore, applied in the next research procedure.

Lesson Plan 1 (2nd Week)	
Lesson Title	World History
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • be acquainted with the history of the world through reading, • demonstrate awareness of significant events in the past; and • appreciate world history through the virtual tour.
Subject Area	English (Reading)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following reading skills: <ul style="list-style-type: none"> • distinguish details in reading; and • identify patterns in reading.
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker


Student Learning Resources Online at Home through Virtual Learning Platforms	<ul style="list-style-type: none"> • Instructional Videos: “Supporting details and patterns in reading” (See Appendix 1E) • Reading passage: “The World History” (See Appendix 2E) • Quiz: Answer the questions from the reading passage posted in the Classtart’s exercise section
Assessments	<p>Authentic Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.1 Note-taking (See Appendix 3E) • Virtual Task 1.2 Reflective Journal (See Appendix 4E) <p>Formal Assessments</p> <ul style="list-style-type: none"> • Virtual Task 2.2 Pop Quiz from the reading passage.
 Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students are logging into the Classtart program via their own account. • Students are going to watch a video clip titled “Supporting details and patterns in reading” posted by the teacher in the Classtart exercise section. • Students are going to finish the Virtual Task 1.1 Note-taking.
Stage 2: In-Virtual-Class via Second Life (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (Second Life)	<ul style="list-style-type: none"> • Students are logging into the Second Life and teleport themselves to the “Nook Island”. • At this stage, the students and teacher meet in the virtual reality class on the virtual “Nook Island”. • Teacher opens the floor for questions and clarifications about the tasks assigned which are done at home before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities	<ul style="list-style-type: none"> • The teacher asks the students to form a group of 5. • Students, then, are asked to read the passage titled

(40 minutes) (Second Life and Classtart)	“The World History” and finish the Pop quiz from the reading passage, Virtual Task 2.2 and submit the task in the Classtart.
Step 3 Interactive feedback session (10 minutes) (Second Life)	<ul style="list-style-type: none"> • After the students submit the Virtual Task 2.2, the teacher asks the students how to get the answer via the Second Life. • At the end, the teacher gives feedback and suggestions about skimming and scanning reading techniques.
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 2: After-Class (Classtart)	<ul style="list-style-type: none"> • After the class, the students are tasked to write an info-reflective journal, Virtual Task 1.2 which will be posted in the Classtart program.



LESSON PLAN 1

(2ND WEEK)



Lesson Title: Travel (English Reading)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Be introduced to different travel destinations,
- Demonstrate interest in different places through a travel advertisement; and
- Appreciate the value of traveling and its effect to people.



Language Skill(s)

Students are expected to develop the reading skills:

- Distinguish important details in reading; and
- Make connections with the old knowledge to the new.

Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:

"Learn how to make connections"



Reading Passage:

"The World's Big City Problems"



Quizzes:

Answer the questions and posted in the Classtart's exercise section



Authentic

Virtual Task 1.1:
Mind mapping
Virtual Task 1.2:
Travelog

Formal

Worksheet 2.1:
Pop Quiz

Rubric for marking Travelog
(Virtual Task 1.2)

Assessments



Figure 23 Lesson Plan 1

Lesson Plan 2 (3rd Week)	
Lesson Title	Understanding Culture
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • Get acquainted with the salient concepts in cultures, • Demonstrate understanding of culture; and • Gain appreciation of the diversity of culture.
Subject Area	English (Listening)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following reading skills: <ul style="list-style-type: none"> • Distinguish details in listening; and • Identify patterns in listening.
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Videos: “Listening for main ideas and supporting details” (See Appendix 1F) • Quiz: Answer the questions from the video posted in the Classtart’s exercise section
Assessments	Authentic Assessments <ul style="list-style-type: none"> • Virtual Task 1.1: Graphic Organizer (See Appendix 2F) • Virtual Task 1.2: Reflective Essay (See Appendix 3F)

	<p>Formal Assessments</p> <ul style="list-style-type: none"> Virtual Task 2.1: Pop Quiz Rubric for marking for graphic organizer (for Virtual Task 1.1) (See Appendix 4F).
Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> Students are going to watch the video titled “Listening for main ideas and supporting details” via the link posted in the Classtart. After viewing and listening to the videos, students are to finish the Graphic organizer, the Virtual Task 1.1 reflecting the video, posted online in the Classtart’s exercise section.
Stage 2: In-Virtual-Class via VRChat (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (VRChat)	<ul style="list-style-type: none"> Students are logging into the virtual learning platform, VR Chat, PSUIC. At this stage, the students and teacher meet in the virtual class, PSUIC VR Chat main hall room. Students watch the videos titled “Listening for main ideas and supporting details” again. Then, students participate in the interactive lecture in the main hall of the virtual PSUIC room. Teacher opens the floor for questions and clarifications before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (VRChat and Classtart)	<ul style="list-style-type: none"> The teacher asks the students to log into the VR Chat, PSUIC. Students watch the interactive presentation of Thai Culture and the world shown in the video. The teacher asks the students to finish the pop quiz, Virtual Task 2.1. Students upload their essay in the Classtart’s exercise section.

<p>Step 3 Interactive feedback session (10 minutes) (VRChat)</p>	<ul style="list-style-type: none"> • After the collaborative activity, the teacher asks the students how to get the answer from the students as discussion via the VR Chat, PSUIC main hall room. • At the end, the teacher gives feedback and suggestions about listening for specific information.
<p>Stage 1: At home virtually via the Classtart (30 minutes)</p>	
<p>Step 2: After-Class (Classtart)</p>	<ul style="list-style-type: none"> • After the class, the students are tasked to write an info-reflective journal, Virtual Task 1.2 which will be posted in the Classtart program.



LESSON PLAN 2

(3RD WEEK)



Lesson Title: Understanding Culture (English Reading)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Get acquainted with the salient concepts in cultures,
- Demonstrate understanding of culture; and
- Gain appreciation of the diversity of culture.



Language Skill(s)

In this lesson, students are expected to develop the following listening skills:

- Distinguish details in listening; and
- Identify patterns in listening.



Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:

"Listening for main ideas and supporting details"



Quizzer:

Answer the questions from the video posted in the Classtart's exercise section.



Authentic

Virtual Task 1.1:
Graphic Organizer
Virtual Task 1.2:
Reflective Essay

Formal

Virtual Task 2.1:
Pop Quiz

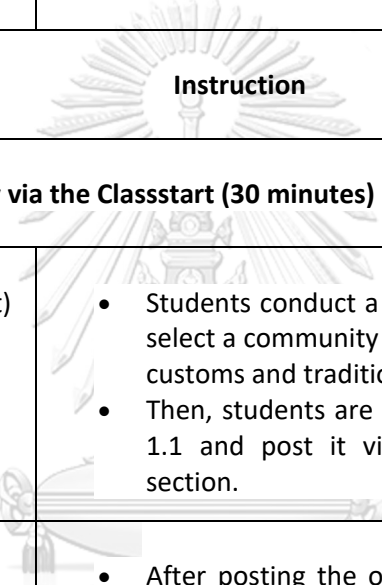
Assessments



Rubric for marking for graphic organizer (Virtual Task 1.1)

Figure 24 Lesson Plan 2

Lesson Plan 3 (4th Week)	
Lesson Title	Customs and Traditions
Learning Objectives	<p>At the end of the lesson, the students should be able to:</p> <ul style="list-style-type: none"> • Be acquainted with the customs and traditions around the world, • Demonstrate knowledge of the main guiding principles of each custom; and • Appreciate the traditions that other people practice.
Subject Area	English (Reading)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	<p>In this lesson, students are expected to develop the following reading skills:</p> <ul style="list-style-type: none"> • deduce the gist of the text.
Materials	<p>At home</p> <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker <p>Virtual class</p> <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Videos: “GISTS Reading Strategy” (See Appendix 1G). • Reading passage: “A British Wedding” (See Appendix 2G). • Quiz: Answer the questions from the reading passage posted in the Classtart’s exercise section.

Assessments	<p>Authentic Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.1: Writing Outline (See Appendix 3G). • Virtual Task 1.2: Reflective Video Presentation (See Appendix 4G). <p>Formal Assessments</p> <ul style="list-style-type: none"> • Virtual Task 2.1: Pop Quiz • Rubric for marking writing outline (for Virtual Task 1.1) (See Appendix 5G). • Rubric for marking reflective video presentation (for Virtual Task 1.2) (See Appendix 6G).
 <p>Instruction</p>	
<p>Stage 1: At home virtually via the Classtart (30 minutes)</p>	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students conduct a mini research. They are tasked to select a community of their choice and list the specific customs and traditions found in any passages. • Then, students are to write an outline in Virtual Task 1.1 and post it via the Classtart in the exercise section.
Step 2: Virtual Class (Second Life and Classtart)	<ul style="list-style-type: none"> • After posting the outline, the students log in to the virtual platform, Second Life, Cyprus Island. • Students start viewing “GISTS Reading Strategy” virtually. • Students proceed to watching a clip, customs, and traditions again. • Students, then, are to read a short passage, “A British Wedding”. • After reading, the students answer a pop quiz, Virtual Task 2.1 in the Classtart.
<p>Stage 2: In-Virtual-Class via Second Life (60 minutes)</p>	
Step 1: Teacher-Student Discussion Time (10 minutes) (Second Life)	<ul style="list-style-type: none"> • At this stage, the students and teacher meet in the class virtually via Second Life, Nook Library Island, meeting room.

	<ul style="list-style-type: none"> Teacher opens the floor for questions and clarifications concerning the GISTS reading strategy before proceeding to the following virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (Second Life)	<ul style="list-style-type: none"> The teacher asks the students to be in a group of 5. And they are encouraged to actively participate collaboratively in the virtual class, Nook Library Island, meeting room. The students are to share the outline they made.
Step 3 Interactive feedback session (10 minutes) (Second Life)	<ul style="list-style-type: none"> After the collaborative activity, the teacher asks the students how to get the answer while working on the pop quiz, Virtual Task 2.1. At the end, the teacher gives feedback and suggestions about intensive reading for details.
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 2: After-Class (Classtart)	<ul style="list-style-type: none"> After the class, the students are tasked to create a reflective video presentation, the Virtual Task 1.2 concerning the mini research done earlier which will be posted in the Classtart.

LESSON PLAN 3

(4TH WEEK)



Lesson Title: Customs and Traditions (English Reading)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Be acquainted with the customs and traditions around the world,
- Demonstrate knowledge of the main guiding principles of each custom; and
- Appreciate the traditions that other people practice.



Language Skill(s)

In this lesson, students are expected to develop the following reading skills:

- Deduce the gist of the text.



Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:
"GISTS Reading Strategy"
Video clip on customs and tradition



Reading Passage:
"A British Wedding"



Quizzer:
Answer the questions from the reading passage posted in the Classtart's exercise section.



Authentic
Virtual Task 1.1:
Writing Outline
Virtual Task 1.2:
Reflective Video Presentation

Formal
Virtual Task 2.1:
Pop Quiz

Rubric for marking writing outline & video presentation (Virtual Task 1.1 & 1.2)



Figure 25 Lesson Plan 3

Lesson Plan 4 (5th Week)	
Lesson Title	Health and Fitness
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • Develop awareness on the significance of health and fitness, • Demonstrate understanding of health and fitness; and • Appreciate the value of being fit.
Subject Area	English (Listening)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following reading skills: <ul style="list-style-type: none"> • Identifying details.
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Videos: “Ted-talk on Health and Fitness-how to get fit” (See Appendix 1H), and “How to Improve Your Skills by Listening for Details” (See Appendix 2H). • Quiz: Answer the questions concerning the listening practice exercises posted in the Classtart’s exercise section.

Assessments	<p>Authentic Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.1: Classroom Poll (See Appendix 3H). • Virtual Task 1.2: Reflective Advocacy Video (See Appendix 4H). <p>Formal Assessments</p> <ul style="list-style-type: none"> • Virtual Task 2.1: Picture Dictation (See Appendix 5H). • Rubric for advocacy video (for Virtual Task 1.2) (See Appendix 6H).
Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students are going to watch the video titled “How to get fit” posted in the Classtart. • After viewing and listening to the videos, students are to finish the Virtual Task 1.1 Classroom Poll, posted online on Classtart’s exercise section.
Stage 2: In-Virtual-Class via VRChat (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (VRChat)	<ul style="list-style-type: none"> • Students are logging into the virtual learning platform, VR Chat, PSUIC. • At this stage, the students and teacher meet in the virtual class for having discussion. • Teacher opens the floor for questions and clarifications about the video viewed earlier before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (VRChat and Classtart)	<ul style="list-style-type: none"> • Teacher starts playing the video “How to improve your listening skills” • After enjoying the video, the teacher asks the students to be in a group of 5. And they are encouraged to actively participate collaboratively. • Teacher introduces the activity of “Picture Dictation”, the Virtual Task 2.1, which is concerning finding some specific answers in the listening exercise. • The teacher describes pictures without showing the students and having them drawn it. • After 15-20 minutes, the teacher asks each group to submit the task via the Classtart.

<p>Step 3 Interactive feedback session (10 minutes) (VRChat)</p>	<ul style="list-style-type: none"> • After the collaborative activity, the teacher asks the students how to get the answer from the students. • At the end, the teacher gives feedback and suggestions about intensive listening for details.
<p>Stage 1: At home virtually via the Classtart (30 minutes)</p>	
<p>Step 2: After-Class (Classtart)</p>	<ul style="list-style-type: none"> • After the class, the students are tasked to watch the video “How to get fit” again and create an advocacy video, the Virtual Task 1.2 following the suggestions from the video posted in the Classtart.



LESSON PLAN 4

(5TH WEEK)



Lesson Title: Health and Fitness (English Listening)
Education Level: Undergraduate
Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Develop awareness on the significance of health and fitness,
- Demonstrate understanding of health and fitness; and
- Appreciate the value of being fit.



Language Skill(s)

In this lesson, students are expected to develop the following listening skills:

- Identify details.

Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:

"How to Improve Your Skills by Listening for Details"
 "Ted talk on Health and Fitness"



Quizzer:

Answer the questions concerning the listening practice exercises posted in the Classtart's exercise section.



Assessments

Authentic

Virtual Task 1.1:
 Classroom Poll
 Virtual Task 1.2:
 Reflective Advocacy
 Video

Rubric for advocacy video (Virtual Task 1.2)

Formal

Virtual Task 2.1:
 Picture Dictation



Figure 26 Lesson Plan 4

Lesson Plan 5 (6th Week)	
Lesson Title	Travel
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • Be introduced to different travel destinations, • Demonstrate interest in different places through a travel advertisement; and • Appreciate the value of traveling and its effect to people.
Subject Area	English (Reading)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following reading skills: <ul style="list-style-type: none"> • Distinguish important details in reading; and • Make connections with the old knowledge to the new.
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Videos: “Learn how to make connections” (See Appendix 1I). • Reading Passage “The World’s Big City Problems” (See Appendix 2I). • Quiz: Answer the questions from the reading passage posted in the Classtart’s exercise section.

Assessments	<p>Authentic Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.1: Mind mapping (See Appendix 3I). • Virtual Task 1.2: Travelog (See Appendix 4I). <p>Formal Assessments</p> <ul style="list-style-type: none"> • Worksheet 2.1: Pop Quiz (See Appendix 5I). • Rubric for marking Travelog, the Virtual Task 1.2 (See Appendix 6I).
Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students are logging into the Classtart program via their own account. • Students are viewing the video “learn how to make connections”. • Students are to write a mind mapping, the Virtual Task 1.1.
Stage 2: In-Virtual-Class via Second Life (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (Second Life)	<ul style="list-style-type: none"> • Students are logging into the Second Life and teleport themselves to the “Nook Island”. • At this stage, the students and teacher meet in the virtual reality class on the virtual “Nook Island”. • At this stage, the students and teacher meet in the virtual class, Second Life. • Teacher opens the floor for questions and clarifications about the Task done earlier before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (Second Life)	<ul style="list-style-type: none"> • The teacher asks the students to make a circle. And they are encouraged to actively participate collaboratively in class. • Students are asked to read the passage “The World’s Big City Problems”. • Teacher introduces the Task 1.2 Travelog which will be done after reading the provided passage and it needs to be submitted via the ClassStart.

<p>Step 3 Interactive feedback session (10 minutes) (Second Life)</p>	<ul style="list-style-type: none"> • After the collaborative activity, the teacher asks the students how to get the answer from the passages. At the end, the teacher gives feedback and suggestions about identifying the author's purpose in reading.
<p>Stage 1: At home virtually via the Classtart (30 minutes)</p>	
<p>Step 2: After-Class (Classtart)</p>	<ul style="list-style-type: none"> • After the class, the students are tasked to answer the Pop Quiz, Virtual Task 2.1 after reading the passage titled "Masdar, The Future of Cities" which will be posted in the Classtart.



LESSON PLAN 5

(6TH WEEK)



Lesson Title: Travel (English Reading)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Be introduced to different travel destinations,
- Demonstrate interest in different places through a travel advertisement; and
- Appreciate the value of traveling and its effect to people.



Language Skill(s)

In this lesson, students are expected to develop the following reading skills:

- Distinguish important details in reading; and
- Make connections with the old knowledge to the new.

Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:

"Learn how to make connections"



Reading Passage:

"The World's Big City Problems"



Quizzer:

Answer the questions from the reading passage posted in the Classstart's exercise section.



Authentic

Virtual Task 1.1:
Mind mapping
Virtual Task 1.2:
Travelog

Rubric for marking Travelog, the Virtual Task 1.2

Formal

Worksheet 2.1:
Pop Quiz

Assessments



Figure 27 Lesson Plan 5

Lesson Plan 6 (7th Week)	
Lesson Title	Discovery and Invention
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • Name different important discoveries and invention around the world, • Demonstrate awareness of the impact of these discoveries; and • Appreciate the contribution of these inventions in our everyday life.
Subject Area	English (Listening)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following reading skills: <ul style="list-style-type: none"> • Identifying details.
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Video: “Listening skill inferences” (See Appendix 1J).
Assessments	Authentic Assessments <ul style="list-style-type: none"> • Virtual Task 1.1: Graphic Organizer


	<ul style="list-style-type: none"> • Virtual Task 1.2: Reflective Summary Writing Formal Assessments • Virtual Task 2.1: Pop-quiz. • Rubric for marking graphic organizer and summary writing (Virtual Task 1.1 and 1.2).
Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students are to conduct a mini research. They will search for classic discoveries and inventions from any video. • Students are logging into the Classtart program via their own account. • Students are to finish the Graphic Organizer, the Virtual Task 1.1, of significant people with salient contributions found in the video viewed and upload the summary in the Classtart, exercise section.
Stage 2: In-Virtual-Class via VRChat (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (VRChat)	<ul style="list-style-type: none"> • Students are logging into the virtual platform, VR Chat, PSUIC. • At this stage, the students and teacher meet in the class virtually. • Teacher opens the floor for questions and clarifications regarding the videos the students have viewed before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (VRChat and Classtart)	<ul style="list-style-type: none"> • The teacher asks the students to be in a group of 5. And they are encouraged to actively participate collaboratively in class. • Teacher s viewing the video “Listening skill inferences” for the students. • Then, the teacher and students are having the discussion about the video viewed before they are asked to finish the listening pop-quiz, Virtual Task 2.1.

Step 3 Interactive feedback session (10 minutes) (VRChat)	<ul style="list-style-type: none"> At the end, the teacher gives feedback and suggestions about listening for making inferences.
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 2: After-Class (Classtart)	<ul style="list-style-type: none"> After the class, the students are tasked to write a summary, the Virtual Task 2.1, of the video the students searched earlier and post the task via the Classtart.



LESSON PLAN 6

(7TH WEEK)



Lesson Title: Discovery and Invention (English Listen)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Name different important discoveries and invention around the world,
- Demonstrate awareness of the impact of these discoveries; and
- Appreciate the contribution of these inventions in our everyday life.



Language Skill(s)

In this lesson, students are expected to develop the following reading skills:

- Making inferences.

Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:

"Listening skill inferences"



Assessments



Authentic

Virtual Task 1.1:
Graphic Organizer
Virtual Task 1.2:
Reflective Summary Writing

Formal

Worksheet 2.1:
Pop Quiz

Rubric for marking graphic organizer & summary writing (Virtual Task 1.1 & 1.2)

Figure 28 Lesson Plan 6

Lesson Plan 7 (8th Week)	
Lesson Title	The Social Media
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • Be aware of the different social media sites and applications available, • Demonstrate understanding of proper use of social media; and • Appreciate world history.
Subject Area	English (Reading)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following reading skills: <ul style="list-style-type: none"> • Distinguish literal between implied meaning; and • Identify patterns in author's implied meanings.
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Videos: "Author's Purpose" (Appendix 1K), and "How to crack easily the writer's view" (Appendix 2K). • Reading passage: Read and Travel. (Appendix 3K). • Quiz: Author's Purpose Quiz.

Assessments	<p>Authentic Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.1: Note Taking • Virtual Task 1.2: Reflective Journal <p>Formal Assessments</p> <ul style="list-style-type: none"> • Virtual Task 2.1: Pop Quiz
Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students are logging into the Classtart program via their own account. • Students are asked to take note, the Virtual Task 1.1, what they have viewed from the video and upload the task in the Classtart exercise section.
Stage 2: In-Virtual-Class via Second Life (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (Second Life)	<ul style="list-style-type: none"> • Students are logging into the Second Life and teleport themselves to the “Nook Island”. • At this stage, the students and teacher meet in the virtual reality class on the virtual “Nook Island”. • Teacher opens the floor for questions and clarifications about the task done at home before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (Second Life)	<ul style="list-style-type: none"> • The teacher asks the students to make a circle. And they are encouraged to actively participate collaboratively in class. • Teacher plays the video, titled “How to crack the writer’s view easily” before having discussion. • Teacher let the students finish the game within 20 mins. • Teacher introduces the passage titled “New social-networking habits”. • Students are asked to read the passage and answer the pop quiz, the Virtual Task 2.1 in the ClassStart.

<p>Step 3 Interactive feedback session (10 minutes) (Second Life)</p>	<ul style="list-style-type: none"> • After the pop quiz, the teacher asks the students how to get the answers from the students. At the end, the teacher gives feedback and suggestions about identifying the author's purpose in reading.
<p>Stage 1: At home virtually via the Classtart (30 minutes)</p>	
<p>Step 2: After-Class (Classtart)</p>	<ul style="list-style-type: none"> • After the class, the students are tasked to write a reflective journal which will be posted in the Classtart exercise section, the Virtual Task 2.1.



LESSON PLAN 7 (8TH WEEK)



Lesson Title: The Social Media (English Reading)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Be aware of the different social media sites and applications available,
- Demonstrate understanding of proper use of social media; and
- Appreciate world history.



Language Skill(s)

In this lesson, students are expected to develop the following reading skills:

- Distinguish literal between implied meaning; and
- Identify patterns in author's implied meanings.

Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:

"Author's Purpose"
"How to crack easily the writer's view"



Reading Passage:

"Read and Travel"



Quiz:

Author's Purpose Quiz



Authentic

Virtual Task 1.1:
Note Taking
Virtual Task 1.2:
Reflective Journal

Formal

Virtual Task 2.1:
Pop Quiz

Assessments

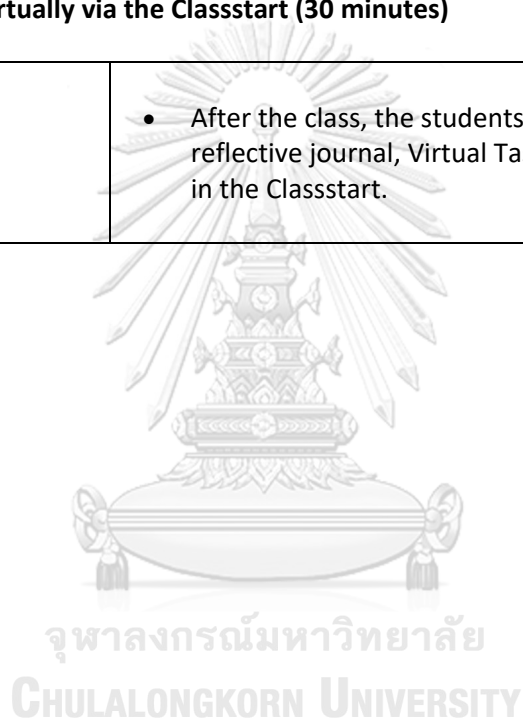


Figure 29 Lesson Plan 7

Lesson Plan 8 (9th Week)	
Lesson Title	Technology Then and Now
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • Trace the development of technology, • Demonstrate awareness of significant contribution of technology; and • Appreciate the relevance of technology in their lives.
Subject Area	English (Listening)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following listening skills: <ul style="list-style-type: none"> • Listening for a gist
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Videos: “Listening Questions - Gist-Purpose and Gist-Content” (See Appendix 1L). • Listening audio: Satnav “Using a Sat-Nav Safely” (See Appendix 2L). • Quiz: Answer the questions concerning the listening for a GIST from the Satnav audio.


Assessments	<p>Authentic Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.1: Notetaking • Virtual Task 1.2: Reflective journal <p>Formal Assessments</p> <ul style="list-style-type: none"> • Virtual Task 2.1: Satnav Quiz.
Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students are going to watch the video titled “Listening Questions - Gist-Purpose and Gist-Content” via the link posted in the Classtart. • After viewing and listening to the videos, students are to finish the Graphic organizer, the Virtual Task 1.1 Notetaking, and will be posted online in the Classtart’s exercise section.
Stage 2: In-Virtual-Class via VRChat (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (VRChat)	<ul style="list-style-type: none"> • Students are logging into the virtual platform, VR Chat, PSUIC. • At this stage, the students and teacher meet in the class virtually. • Teacher opens the floor for questions and clarifications regarding the videos the students have viewed before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (VRChat and Classtart)	<ul style="list-style-type: none"> • The teacher asks the students to be in a group of 5., and they are encouraged to actively participate collaboratively in class. • Teacher introduces what the “GIST” is about. • Teacher plays the audio “Satnav” by asking the first set of GIST questions before the audio starts and let the group write the answers while listening. • After the first audio, the teacher gets the answers and discusses with the students. • Teacher introduces another set of activity question concerning distinguishing facts from opinions.

	<ul style="list-style-type: none"> Teacher then plays the same audio again and lets the students finish the questions, the Virtual Task 1.2 Satnav Quiz and upload the answers in the Classtart's exercise section.
Step 3 Interactive feedback session (10 minutes) (VRChat)	<ul style="list-style-type: none"> After the collaborative activity, the teacher asks the students how to get the answer from the students. At the end, the teacher gives feedback and suggestions about listening for a gist skill.
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 2: After-Class (Classtart)	<ul style="list-style-type: none"> After the class, the students are tasked to finish the reflective journal, Virtual Task 2.1, which will be posted in the Classtart.



LESSON PLAN 8

(9TH WEEK)



Lesson Title: Technology Then and Now (English Listening)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Trace the development of technology,
- Demonstrate awareness of significant contribution of technology; and
- Appreciate the relevance of technology in their lives.



Language Skill(s)

In this lesson, students are expected to develop the following reading skills:

- Listening for a gist

Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:

“Listening Questions - Gist-Purpose and Gist-Content”



Listening audio:

“Satnav”



Quizer:

Answer the questions concerning the listening for a GIST from the Satnav audio.



Authentic

Virtual Task 1.1:
Note Taking
Virtual Task 1.2:
Reflective Journal

Formal

Virtual Task 2.1:
Satnav Quiz

Assessments



Figure 30 Lesson Plan 8

Lesson Plan 9 (10th Week)	
Lesson Title	The Changing Climate
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • Be acquainted with the ongoing climate changes, • Demonstrate concern of the environment through advocacy video; and • Appreciate steps that were collectively exerted to address climate change.
Subject Area	English (Reading)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following reading skills: <ul style="list-style-type: none"> • Distinguish bias and balanced point of views in reading.
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Video: “Bias and Point of View” (See Appendix 1M). • Reading passage titled “Offshore Production” (See Appendix 2M).

Assessments	<p>Authentic Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.1: Advocacy Video • Virtual Task 1.2: Reflective journal <p>Formal Assessments</p> <ul style="list-style-type: none"> • Virtual Task 2.1: Pop Quiz.
Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students are logging into the Classtart program via their own account. • Students are asked to view the video titled “Bias and Point of View” • After viewing the video, students are required to finish the advocacy video, the Virtual Task 1.1, and upload the task in the Classtart exercise section.
Stage 2: In-Virtual-Class via Second Life (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (Second Life)	<ul style="list-style-type: none"> • Students are logging into the Second Life and teleport themselves to the “Nook Island”. • At this stage, the students and teacher meet in the virtual reality class on the virtual “Nook Island”. • Teacher opens the floor for questions and clarifications about the task done at home before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (Second Life)	<ul style="list-style-type: none"> • The teacher asks the students to be in a group of 5. And they are encouraged to actively participate collaboratively in class. • Teacher asked to read the passage titled “Offshore Production” • After reading, the students are required to finish the pop quiz, Virtual Task 2.1, and upload the answer in the Classtart’s exercise section.

<p>Step 3 Interactive feedback session (10 minutes) (Second Life)</p>	<ul style="list-style-type: none"> • After the collaborative activity, the teacher asks the students how to get the answer from the passage. At the end, the teacher gives feedback and suggestions about reading for bias.
<p>Stage 1: At home virtually via the Classtart (30 minutes)</p>	
<p>Step 2: After-Class (Classtart)</p>	<ul style="list-style-type: none"> • After the class, the students are tasked to finish the reflective journal, Virtual Task 2.1, which will be posted in the Classtart.



LESSON PLAN 9

(10TH WEEK)



Lesson Title: The Changing Climate (English Reading)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Be acquainted with the ongoing climate changes,
- Demonstrate concern of the environment through advocacy video; and
- Appreciate steps that were collectively exerted to address climate change.



Language Skill(s)

In this lesson, students are expected to develop the following reading skills:

- Distinguish bias and balanced point of views in reading.

Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:
"Bias and Point of View"

Reading Passage:
"Offshore Production"

Quiz:
Author's Purpose Quiz



Authentic
Virtual Task 1.1:
Advocacy Video
Virtual Task 1.2:
Reflective Journal

Formal
Virtual Task 2.1:
Pop Quiz

Assessments



Figure 31 Lesson Plan 9

Lesson Plan 10 (11th Week)	
Lesson Title	World of Influencers
Learning Objectives	At the end of the lesson, the students should be able to: <ul style="list-style-type: none"> • Be acquainted with practices of being an influencer, • Demonstrate understanding of vlog meanings; and • Appreciate impact of influencers among their followers.
Subject Area	English (Listening)
Education Level	Undergraduate
Time Needed	120 Minutes: 60 mins at home and 60 mins in-class.
Language Skill(s)	In this lesson, students are expected to develop the following listening skills: <ul style="list-style-type: none"> • Distinguish literal and implied meanings.
Materials	At home <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker Virtual class <ul style="list-style-type: none"> • Internet connection • Computer • Headset/Headphone or Audio Speaker
Student Learning Resources Online at home through Virtual Learning Platform	<ul style="list-style-type: none"> • Instructional Videos: “How to crack easily the writer’s view” (See Appendix 1N), and Ted Talk: “Life of Influencers- how to change the world by being an influencer” (See Appendix 2N).

Assessments	<p>Authentic Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.1: Short Paragraph (See Appendix 3N). • Virtual Task 2.1: Venn Diagram (See Appendix 4N). <p>Formal Assessments</p> <ul style="list-style-type: none"> • Virtual Task 1.2: Vlog Entry (See Appendix 5N).
Instruction	
Stage 1: At home virtually via the Classtart (30 minutes)	
Step 1: Pre-Class (Classtart)	<ul style="list-style-type: none"> • Students are going to watch the video titled “How to crack easily the writer’s view” via the link posted in the Classtart. • After viewing and listening to the videos, students are to finish the short paragraph, the Virtual Task 1.1, and will be posted online in the Classtart’s exercise section.
Step 2: Virtual Class	<ul style="list-style-type: none"> • After posting students’ short paragraph, students watch the Ted Talk: Life of influencers. • Students post their one-minute impression via Mentimeter. • Then, students log into the virtual platform to answer the pop quiz.
Stage 2: In-Virtual-Class via VRChat (60 minutes)	
Step 1: Teacher-Student Discussion Time (10 minutes) (VRChat)	<ul style="list-style-type: none"> • At this stage, the students and teacher meet in the class virtually. • Teacher opens the floor for questions and clarifications about the task done at home before proceeding to the virtual activities.
Step 2: Teacher-guided virtual activities (40 minutes) (VRChat and Classtart)	<ul style="list-style-type: none"> • The teacher plays the video of Ted Talk “Life of Influencers” • Then, they are asked to create a Venn diagram about the similarities and differences, Virtual Task 2.1, and will be uploaded into the Classtart’s exercise section.

<p>Step 3 Interactive feedback session (10 minutes) (VRChat)</p>	<ul style="list-style-type: none"> • After the collaborative activity, the teacher asks the students how to get the Venn diagram. • At the end, the teacher gives feedback and suggestions about identifying the author's purpose from the listening video.
<p>Stage 1: At home virtually via the Classtart (30 minutes)</p>	
<p>Step 2: After-Class (Classtart)</p>	<ul style="list-style-type: none"> • After the class, the students are tasked to finish the Vlog Entry, Virtual Task 2.1, which will be posted in the Classtart.



LESSON PLAN 10 (11TH WEEK)



Lesson Title: World of Influencers (English Listening)

Education Level: Undergraduate

Time: 120 mins: 60 mins at home & 60 mins in class

Learning Objectives

At the end of the lesson, the students should be able to:

- Be acquainted with practices of being an influencer,
- Demonstrate understanding of vlog meanings; and
- Appreciate impact of influencers among their followers.



Language Skill(s)

In this lesson, students are expected to develop the following listening skills:

- Distinguish literal and implied meanings.

Materials needed

At home and Virtual Class

- Internet connection
- Computer
- Headset



Student Learning Resources Online

Instructional Videos:

"How to crack easily the writer's view"
"Ted Talk: Life of Influencers"



Quizzes:

Answer the questions concerning the listening practice exercises posted in the Classtart's exercise section.



Authentic

Virtual Task 1.1:
Short Paragraph
Virtual Task 1.2:
Venn Diagram

Formal

Virtual Task 2.1:
Vlog Entry

Assessments



Rubric for advocacy video (for Virtual Task 1.2)

Figure 32 Lesson Plan 10

Effectiveness of the Developed Prototype of Virtual Learning Implemented in Flipped Classroom in Improving Thai Undergraduates' English Receptive Skills

After the ten weeks of the experiment following the lesson plans mentioned earlier, the students were asked to take the post-evaluation exam which was the TOEIC test, and the scores will be compared to the pre-test done in the step one. The results of pre and post-tests comparison was analyzed and shown in the next following section.

Table 15 Pre-Test TOEIC Listening Scores

Pre-listening scores									
Variables		N (40)	Mean	S.D.	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Year of Study	Year 1	18	267.78	41.700	9.829	247.04	288.51	210	335
	Year 2	12	249.58	71.429	20.620	204.20	294.97	145	370
	Year 3	10	252.50	53.138	16.804	214.49	290.51	155	330
Fields of Study	Sci	20	250.75	64.057	14.324	220.77	280.73	145	370
	Soc	20	266.25	42.049	9.402	246.57	285.93	210	335
Genders	Male	17	245.88	51.303	12.443	219.50	272.26	190	370
	Female	23	267.83	55.244	11.519	243.94	291.72	145	345

Table 15 clearly shows the Pre-test-TOEIC listening scores of 40 students participated in this study divided by their years of study, fields of study, and genders. The mean scores of the students divided by their years of study are considered interesting as the freshmen scores was ranked the highest at 267.78 followed by the junior's and the sophomore's, 252.50 and 249.58, respectively. Considering their majors of study, the students from social science majors were ranked higher than that of the science's (266.25 and 250.75) while females had done the scores higher than that of males (267.83 and 245.88).

Table 16 Pre-Test TOEIC Reading Scores

Pre-reading scores									
Variables		N (40)	Mean	S.D.	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Year of Study	Year 1	18	154.44	36.577	8.621	136.25	172.63	105	200
	Year 2	12	162.08	56.426	16.289	126.23	197.93	75	240
	Year 3	10	151.50	47.378	14.982	117.61	185.39	105	260
Fields of Study	Sci	20	156.75	54.126	12.103	131.42	182.08	75	260
	Soc	20	155.25	34.773	7.775	138.98	171.52	105	200
Genders	Male	17	140.88	42.361	10.274	119.10	162.66	75	215
	Female	23	167.17	44.308	9.239	148.01	186.33	105	260

Table 16 clearly shows the Pre-test-TOEIC reading scores of 40 students participated in this study divided by their years of study, majors, and genders. The mean scores of the students divided by their years of study are considered interesting as the sophomore scores was ranked the highest at 162.08 followed by the freshmen's and the junior's, 154.44 and 151.50, respectively. Considering their fields of study, the students from science major score was ranked higher than that of the social sciences' (156.75 and 155.25) while females had done the scores higher than that of males (167.17 and 140.88).

Table 17 Pre-Test TOEIC Total Scores

Total scores (Pretest)									
Variables		N (40)	Mean	S.D.	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Year of Study	Year 1	18	422.22	69.138	16.296	387.84	456.60	315	520
	Year 2	12	411.67	117.344	33.874	337.11	486.22	250	585
	Year 3	10	404.00	86.243	27.272	342.31	465.69	260	590
Fields of Study	Sci	20	407.50	106.035	23.710	357.87	457.13	250	590
	Soc	20	421.50	67.417	15.075	389.95	453.05	315	520
Genders	Male	17	386.76	82.461	20.000	344.37	429.16	295	575
	Female	23	435.00	88.008	18.351	396.94	473.06	250	590

Table 17 clearly shows the Pre-test-TOEIC total scores of 40 students participated in this study divided by their years of study, fields of study, and genders. The mean scores of the students divided by their years of study are considered interesting as the freshmen score was ranked the highest at 422.22 followed by the sophomore's and the junior's, 411.67 and 404.00, respectively. Considering their fields of study, the students from social science score was ranked higher than that of the science's (421.50 and 407.50) while females had done the scores higher than that of males (435.00 and 386.76).

Table 18 Analysis of Variance of the Pre-Listening and Pre- Reading Scores Divided by Different Backgrounds of Students

Pre- listening scores	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Years of study	Between Groups	2863.472	2	1431.736	.477	.625
	Within Groups	111096.528	37	3002.609		
	Total	113960.000	39			

Fields of Study	Between Groups	2402.500	1	2402.500	.818	.371
	Within Groups	111557.500	38	2935.724		
	Total	113960.000	39			
Genders	Between Groups	4706.931	1	4706.931	1.637	.208
	Within Groups	109253.069	38	2875.081		
	Total	113960.000	39			
Pre- reading scores	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Years of study	Between Groups	690.139	2	345.069	.164	.850
	Within Groups	77969.861	37	2107.294		
	Total	78660.000	39			
Fields of Study	Between Groups	22.500	1	22.500	.011	.918
	Within Groups	78637.500	38	2069.408		
	Total	78660.000	39			
Genders	Between Groups	6756.931	1	6756.931	3.571	.066
	Within Groups	71903.069	38	1892.186		
	Total	78660.000	39			
Total scores (Pretest)	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Years of study	Between Groups	2272.222	2	1136.111	.140	.870
	Within Groups	299667.778	37	8099.129		
	Total	301940.000	39			
Fields of Study	Between Groups	1960.000	1	1960.000	.248	.621
	Within Groups	299980.000	38	7894.211		
	Total	301940.000	39			
Genders	Between Groups	22742.941	1	22742.941	3.095	.087
	Within Groups	279197.059	38	7347.291		
	Total	301940.000	39			

According to the analysis of variance table above, it was found there were no difference of the TOEIC pretest mean scores at .05 significant level ($p = 0.625, 0.371, 0.208, 0.850, 0.918, 0.066, 0.870, 0.621, \text{ and } 0.087$ respectively). To clarify, the mean scores of the pretest: pre-listening, pre-reading, and total scores of students in any years of study, fields of study, and genders had indifferent mean scores of TOEIC test ($P > .5$). This was to ensure that all participants in both experimental groups shared the similar English knowledge background.

Table 19 Post-Test TOEIC Listening Scores

Post-listening scores									
Variables		N (40)	Mean	S.D.	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Year of Study	Year 1	18	345.00	47.279	11.144	321.49	368.51	250	405
	Year 2	12	287.50	66.997	19.340	244.93	330.07	220	400
	Year 3	10	283.00	46.916	14.836	249.44	316.56	220	350
Fields of Study	Sci	20	283.00	59.723	13.354	255.05	310.95	220	400
	Soc	20	341.50	46.115	10.312	319.92	363.08	250	405
Genders	Male	17	293.24	58.522	14.194	263.15	323.32	220	405
	Female	23	326.30	59.127	12.329	300.74	351.87	220	405

Table 19 clearly shows the Post-test-TOEIC listening scores of 40 students participated in this study divided by their years of study, fields of study, and genders. The mean scores of the students divided by their years of study are considered interesting as the freshmen score was ranked the highest at 345.00 followed by the sophomore's and the junior's, 287.50 and 283.00, respectively. Considering their fields of study, the students from social science score was ranked higher than that of the science's (341.50 and 283.00) while females had done the scores higher than that of males (326.30 and 293.24).

Table 20 Post-Test TOEIC Reading Scores

Post-reading scores									
Variables		N (40)	Mean	S.D.	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Year of Study	Year 1	18	196.39	47.335	11.157	172.85	219.93	110	270
	Year 2	12	188.75	49.641	14.330	157.21	220.29	105	250
	Year 3	10	183.00	62.147	19.653	138.54	227.46	110	280
Fields of Study	Sci	20	181.25	54.456	12.177	155.76	206.74	105	280
	Soc	20	200.25	46.580	10.416	178.45	222.05	110	270
Genders	Male	17	168.82	43.787	10.620	146.31	191.34	105	250
	Female	23	206.96	50.582	10.547	185.08	228.83	110	280

Table 20 clearly shows the Post-test-TOEIC reading scores of 40 students participated in this study divided by their years of study, fields of study, and genders. The mean scores of the students divided by their years of study are considered interesting as the freshmen score was ranked the highest at 196.39 followed by the sophomore's and the junior's, 188.75 and 183.00, respectively. Considering their fields of study, the students from social science score was ranked higher than that of the science's (200.25 and 181.25) while females had done the scores higher than that of males (206.96 and 168.82).

Table 21 Post-Test TOEIC Total Scores

Total scores (Post-test)									
Variables		N (40)	Mean	S.D.	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Year of Study	Year 1	18	541.39	77.589	18.288	502.80	579.97	390	645
	Year 2	12	476.25	101.559	29.318	411.72	540.78	350	650
	Year 3	10	466.00	100.824	31.883	393.87	538.13	360	620
Fields of Study	Sci	20	464.25	100.633	22.502	417.15	511.35	350	650
	Soc	20	541.75	73.847	16.513	507.19	576.31	390	645
Genders	Male	17	462.06	80.488	19.521	420.68	503.44	350	620
	Female	23	533.26	96.030	20.024	491.73	574.79	360	650

Table 21 clearly shows the Post-test-TOEIC total scores of 40 students participated in this study divided by their years of study, fields of study, and genders. The mean scores of the students divided by their years of study are considered interesting as the freshmen score was ranked the highest at 541.39 followed by the sophomore's and the junior's, 476.25 and 466.00, respectively. Considering their fields of study, the students from social science major score was ranked higher than that of the science's (541.75 and 464.25) while females had done the scores higher than that of males (533.26 and 462.06).

Table 22 Analysis of Variance of the Post-listening and Post- reading Scores Divided by Different Backgrounds of Students

Post- listening scores	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Years of study	Between Groups	35212.500	2	17606.250	6.078	.005
	Within Groups	107185.000	37	2896.892		
	Total	142397.500	39			
Fields of study	Between Groups	34222.500	1	34222.500	12.022	.001
	Within Groups	108175.000	38	2846.711		
	Total	142397.500	39			
Genders	Between Groups	10689.572	1	10689.572	3.084	.087
	Within Groups	131707.928	38	3465.998		
	Total	142397.500	39			
Post- reading scores	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Years of study	Between Groups	1220.972	2	610.486	.226	.799
	Within Groups	99956.528	37	2701.528		
	Total	101177.500	39			
Fields of study	Between Groups	3610.000	1	3610.000	1.406	.243
	Within Groups	97567.500	38	2567.566		
	Total	101177.500	39			
Genders	Between Groups	14214.073	1	14214.073	6.211	.017
	Within Groups	86963.427	38	2288.511		
	Total	101177.500	39			
Total scores (Posttest)	Source of variance	Sum of Squares	Df	Mean Square	F	Sig.
Years of stud	Between Groups	48803.472	2	24401.736	2.938	.065
	Within Groups	307286.528	37	8305.041		
	Total	356090.000	39			

Fields of study	Between Groups	60062.500	1	60062.500	7.710	.008
	Within Groups	296027.500	38	7790.197		
	Total	356090.000	39			
Gender	Between Groups	49556.624	1	49556.624	6.143	.018
	Within Groups	306533.376	38	8066.668		
	Total	356090.000	39			

Table 23 Multiple Comparisons Between Pairs by ANOVA (Post-test/ listening test)

Variable		Mean	Year 1	Year 2	Year 3
Years of Study	Year 1	345.00	-		
	Year 2	287.50	-57.500*	-	
	Year 3	283.00	-62.000*	-4.500	-

According to the table 22 and 23. The different mean scores had been found between pairs at .05 significant level which were presented based on types of each test. The post listening scores, there were different mean scores found in this category which were (1) year of study, 1st year students had a greater mean score of the post listening test ($\bar{x} = 345$) than 2nd year student ($\bar{x} = 287.5$) at .05 significant level whereas the 1st year students also had a greater mean score of the post listening test ($\bar{x} = 345$) than 3rd year student ($\bar{x} = 283$) at .05 significant level, respectively. In terms of the post reading scores, there was a different mean score between the sex of students. Female students had a greater mean score of the post reading scores ($\bar{x} = 206.96$) than male students ($\bar{x} = 168.82$) at .05 significant level ($p = .017$). Lastly, the different mean scores were found in the total mean scores of TOEIC. To clarify, students majoring in social science had a greater mean score of the total mean scores of TOEIC ($\bar{x} = 541.75$) than those majoring in science ($\bar{x} = 464.25$) at .05 significant level ($p = .008$).

Table 24 The Development of TOEIC Scores (Pre-test vs post-test) Analyzed by t-Test for Dependent Sample Group Compared by Students' Years of Study

Pre-test and Post-test comparison							95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
Years of Study	Score type	Pre-test (\bar{x})	Post-test (\bar{x})	Mean	S.D.	Std. Error Mean	Lower	Upper			
Year 1	Listening	267.78	345.00	77.222	47.904	11.291	53.400	101.044	6.839	17	.000
Year 2	Listening	249.58	287.50	37.917	27.341	7.893	20.545	55.288	4.804	11	.001
Year 3	Listening	252.50	283	30.500	32.442	10.259	7.292	53.708	2.973	9	.016
Year 1	Reading	154.44	196.39	41.944	25.618	6.038	29.205	54.684	6.946	17	.000
Year 2	Reading	162.08	188.75	26.667	18.381	5.306	14.988	38.346	5.025	11	.000
Year 3	Reading	151.50	183	31.500	37.197	11.763	4.891	58.109	2.678	9	.025
Year 1	Total TOEIC	422.22	541.39	119.167	60.713	14.310	88.975	149.358	8.327	17	.000
Year 2	Total TOEIC	411.67	476.25	64.583	37.140	10.721	40.986	88.181	6.024	11	.000
Year 3	Total TOEIC	404	466	62.000	61.563	19.468	17.961	106.039	3.185	9	.011

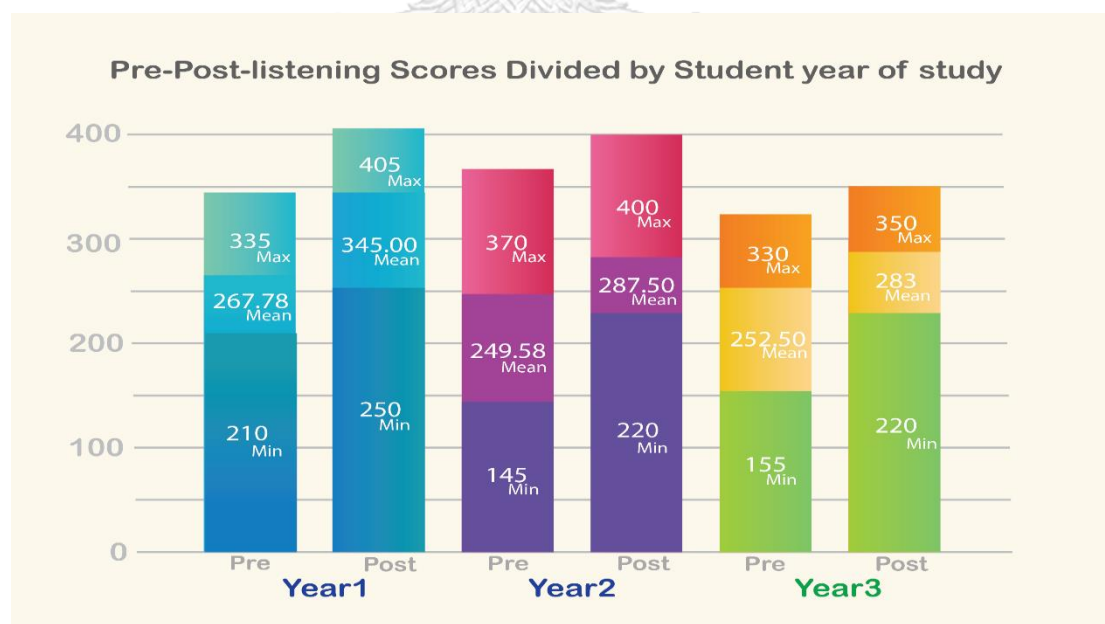


Figure 33 Development of Students' TOEIC Listening Scores Compared by Their Years of Study

It can be clearly seen in Figure 33 that the students in all year had some development in English listening skills as their post-test mean score is higher than their pre-test. To be more specific, the freshmen had some development in English listening skills as their post-test mean score is 345.00 which is higher than that of their pre-test, 267.78, at 77.22. Similarly, the sophomores' mean score of the pre-test, 287.50, is also higher than that of their pre-test, 249.58, at 37.52 while the results show some development happened among the juniors in a similar direction. The post-test mean score of the juniors, 283.00, is higher than that of their pre-test, 252.50, at 30.50. Overall, the freshmen had the highest development of English listening skills followed by the sophomores and the juniors, respectively.

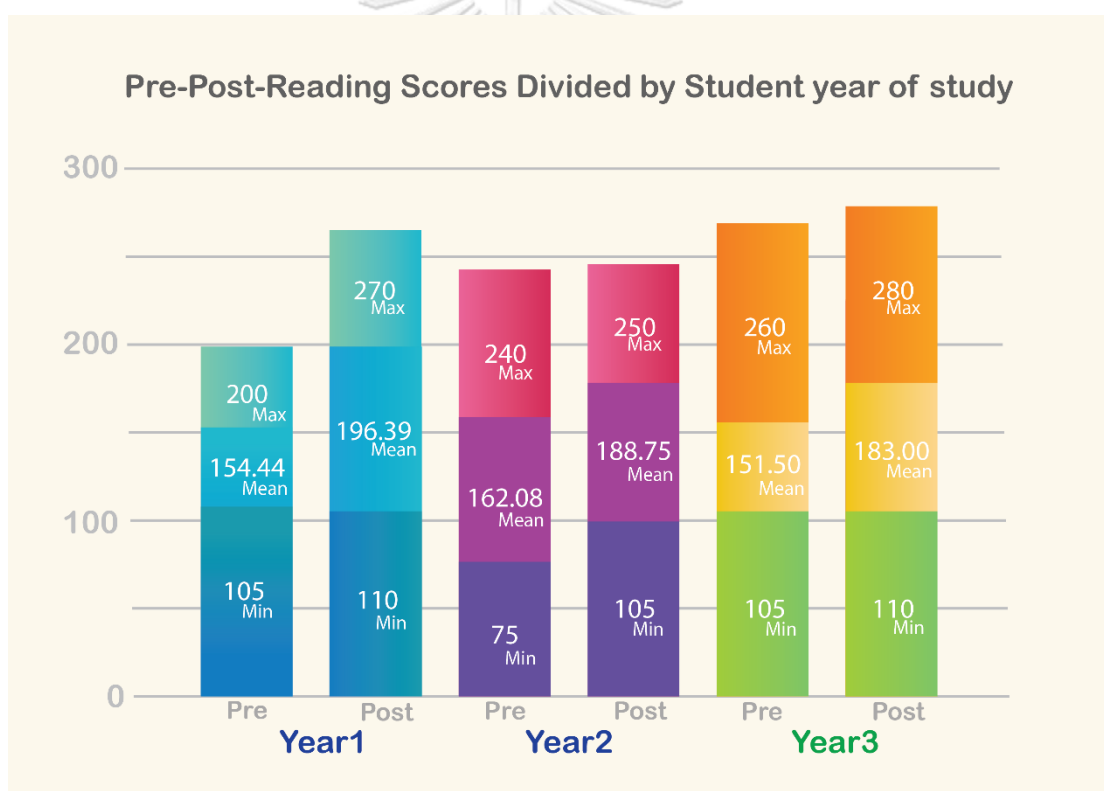


Figure 34 Development of Students' TOEIC Reading Scores Compared by Their Years of Study

It can be clearly seen in Figure 34 that the students in all year had some development in English reading skills as their post-test mean score is higher than their pre-test. To be more specific, the freshmen had some development in English reading skills as their post-test mean score is 196.39 which is higher than that of their pre-test, 154.44, at 41.95. Similarly, the sophomores' mean score of the pre-test, 188.75, is also higher than that of their pre-test, 162.08, at 26.67 while the results show some development happened among the juniors in a similar direction. The post-test mean score of the juniors, 183.00, is higher than that of their pre-test, 151.50, at 31.50. Overall, the freshmen had the highest development of English listening skills followed by the sophomores and the juniors, respectively.

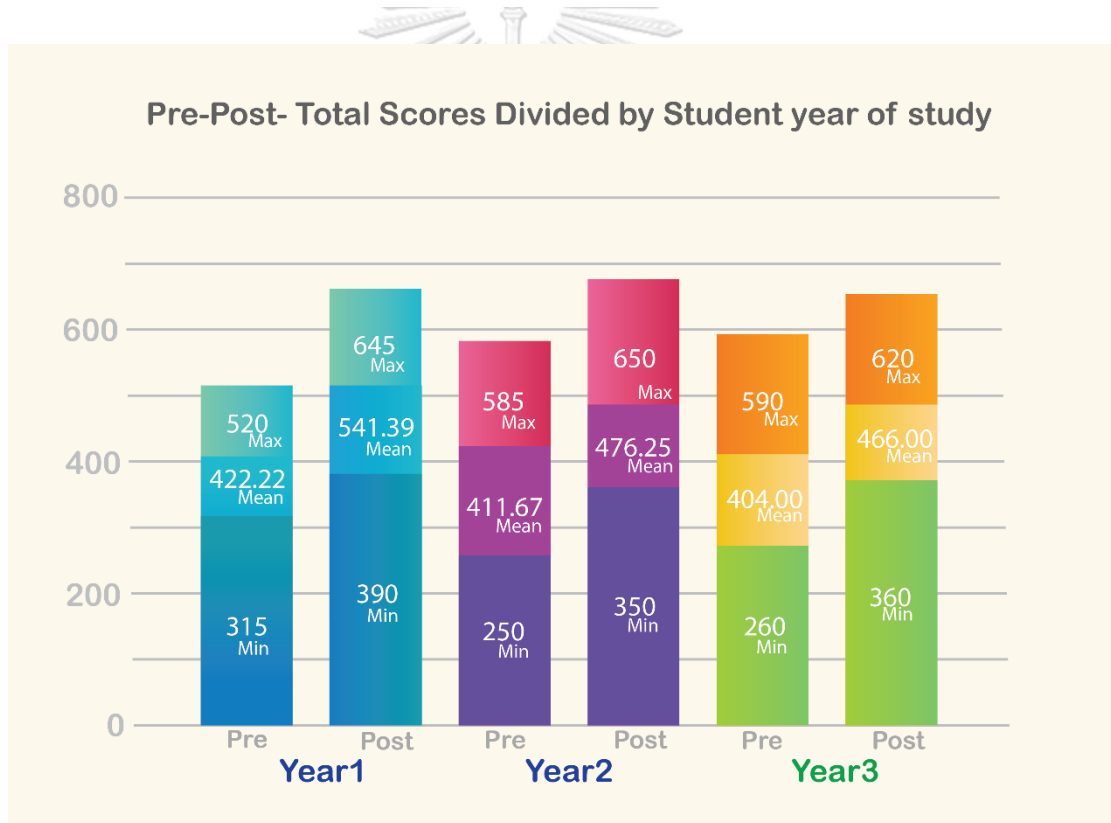


Figure 35 Development of Students' TOEIC Total Scores Compared by Their Years of Study

It can be clearly seen in Figure 35 that the students in all year had some development in English receptive skills as their post-test mean score is higher than their pre-test. To be more specific, the freshmen had some development in English receptive skills as their post-test mean score is 541.39 which is higher than that of their pre-test, 422.22, at 119.17. Similarly, the sophomores' mean score of the pre-test, 476.25, is also higher than that of their pre-test, 411.67, at 64.58 while the results show some development happened among the juniors in a similar direction. The post-test mean score of the juniors, 466.00, is higher than that of their pre-test, 404.00, at 62. Overall, the freshmen had the highest development of English receptive skills followed by the sophomores and the juniors, respectively.

Table 25 The Development of TOEIC Scores (Pre-test vs post-test) Analyzed by t-Test for Dependent Sample Group Compared by Students' Fields of Study

Pre-test and Post-test comparison							95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
Fields of Study	Score type	Pretest mean (\bar{x})	Posttest (\bar{x})	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Science	Listening	250.75	283	32.250	27.838	6.225	19.222	45.278	5.181	19	.000
Social Science	Listening	266.25	341.50	75.250	46.917	10.491	53.292	97.208	7.173	19	.000
Science	Reading	156.75	181.25	24.500	25.126	5.618	12.741	36.259	4.361	19	.000
Social Science	Reading	155.25	200.25	45.000	26.107	5.838	32.782	57.218	7.708	19	.000
Science	Total TOEIC	407.50	464.25	56.750	44.906	10.041	35.734	77.766	5.652	19	.000
Social Science	Total TOEIC	421.50	541.75	120.250	58.094	12.990	93.061	147.439	9.257	19	.000

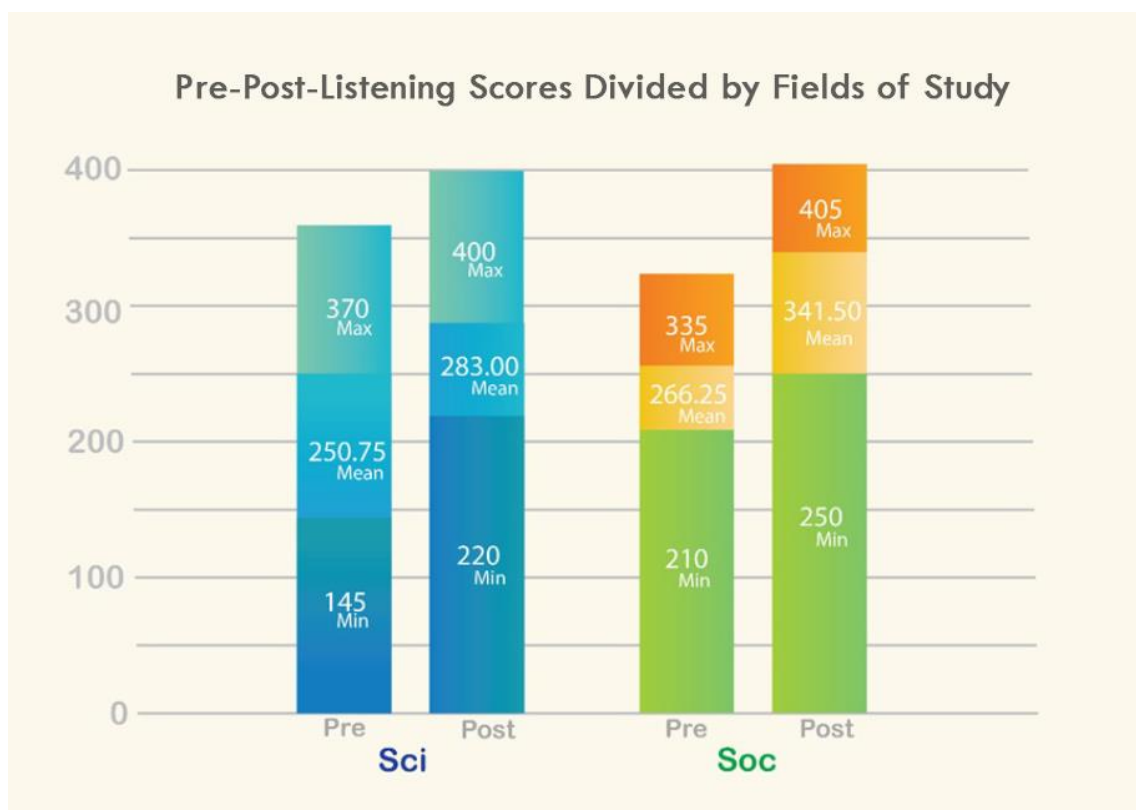
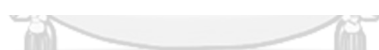


Figure 36 Development of Students' TOEIC Listening Scores Compared by Their Fields of Study



It can be clearly seen in Figure 36 that the students in both fields of science and social science, had some development in English listening skills as their post-test mean score is higher than their pre-test. To be more specific, the students from science had some development in English listening skills as their post-test mean score is 283.00 which is higher than that of their pre-test, 250.75, at 32.25. Similarly, the social science students' mean score of the pre-test, 341.50, is also higher than that of their pre-test, 266.25, at 75.25. Overall, the students from social science had higher development of English listening skills than the students from science at 43.

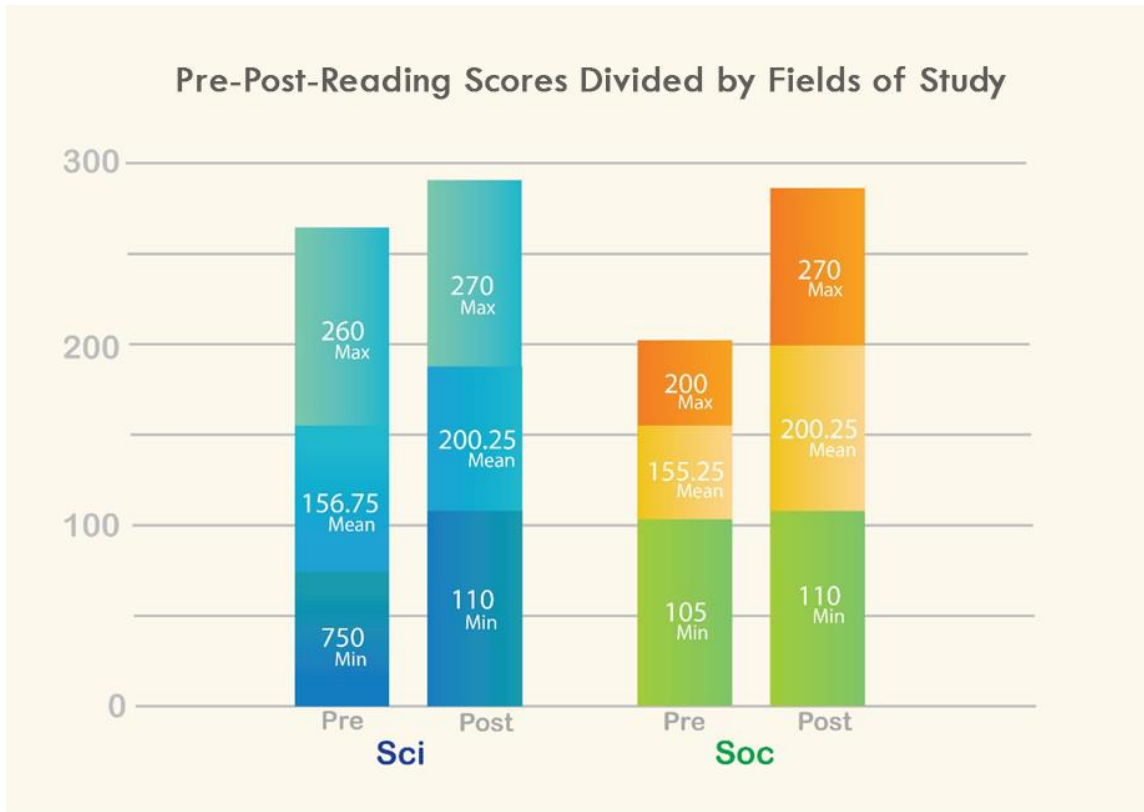


Figure 37 Development of Students' TOEIC Reading Scores Compared by Their Fields of Study



It can be clearly seen in Figure 37 that the students in both fields of science and social science, had some development in English reading skills as their post-test mean score is higher than their pre-test. To be more specific, the students from science had some development in English reading skills as their post-test mean score is 200.25 which is higher than that of their pre-test, 156.75, at 43.50. Similarly, the social science students' mean score of the pre-test, 200.25, is also higher than that of their pre-test, 155.25, at 45.00. Overall, the students from social science had higher development of English listening skills than the students from science.

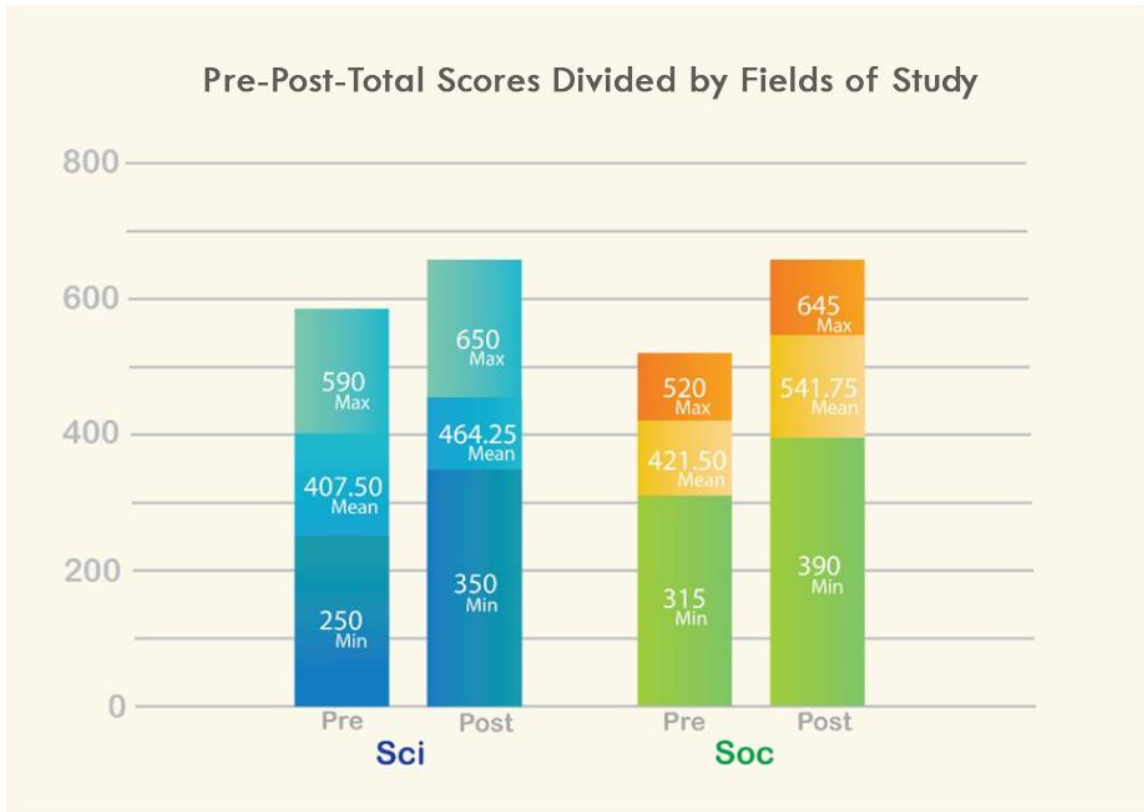


Figure 38 Development of Students' TOEIC Total Scores Compared by Their Fields of Study



It can be clearly seen in Figure 38 that the students in both science and social science, had some development in English receptive skills as their post-test mean score is higher than their pre-test. To be more specific, the students from science had some development in English receptive skills as their post-test mean score is 464.25 which is higher than that of their pre-test, 407.50, at 56.75. Similarly, the social science students' mean score of the pre-test, 541.75, is also higher than that of their pre-test, 421.50, at 120.25. Overall, the students from social science had higher development of English listening skills than the students from science at 63.50.

Table 26 The Development of TOEIC Scores (Pretest vs posttest) Analyzed by t-Test for Dependent Sample Group Compared by Students' Genders of Study

Pretest and Posttest comparison							95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
Genders	Score type	Pretest mean (\bar{x})	Posttest (\bar{x})	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Male	Listening	245.88	293.24	47.353	48.448	11.750	22.443	72.263	4.030	16	.001
Female	Listening	267.83	326.30	58.478	40.604	8.467	40.920	76.037	6.907	22	.000
Male	Reading	140.88	168.82	27.941	26.929	6.531	14.095	41.787	4.278	16	.001
Female	Reading	167.17	206.96	39.783	27.114	5.654	28.058	51.508	7.037	22	.000
Male	Total TOEIC	386.76	462.06	75.294	59.830	14.511	44.533	106.056	5.189	16	.000
Female	Total TOEIC	435	533.26	98.261	60.427	12.600	72.130	124.391	7.799	22	.000

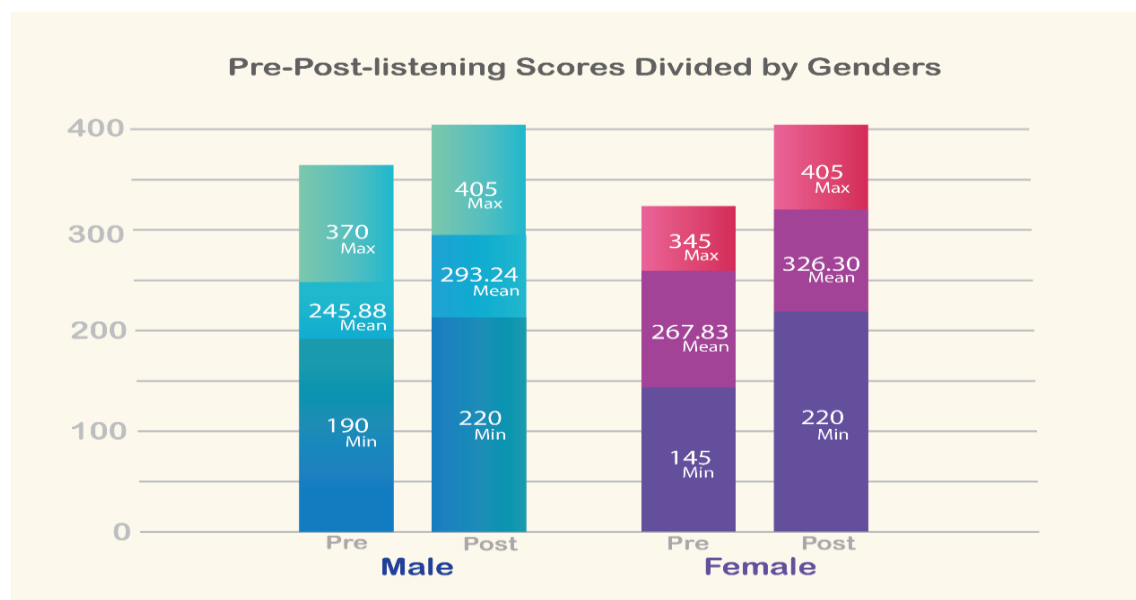


Figure 39 Development of Students' TOEIC Listening Scores Compared by Their Genders

It can be clearly seen in Figure 39 that the students in both genders, male, and female, had some development in English listening skills as their post-test mean score is higher than their pre-test. To be more specific, the male students had some development in English listening skills as their post-test mean score is 293.24 which is higher than that of their pre-test, 245.88, at 47.36. Similarly, the female students' mean score of the pre-test, 326.30, is also higher than that of their pre-test, 267.83, at 58.47. Overall, the female students had higher development of English listening skills than the male students.

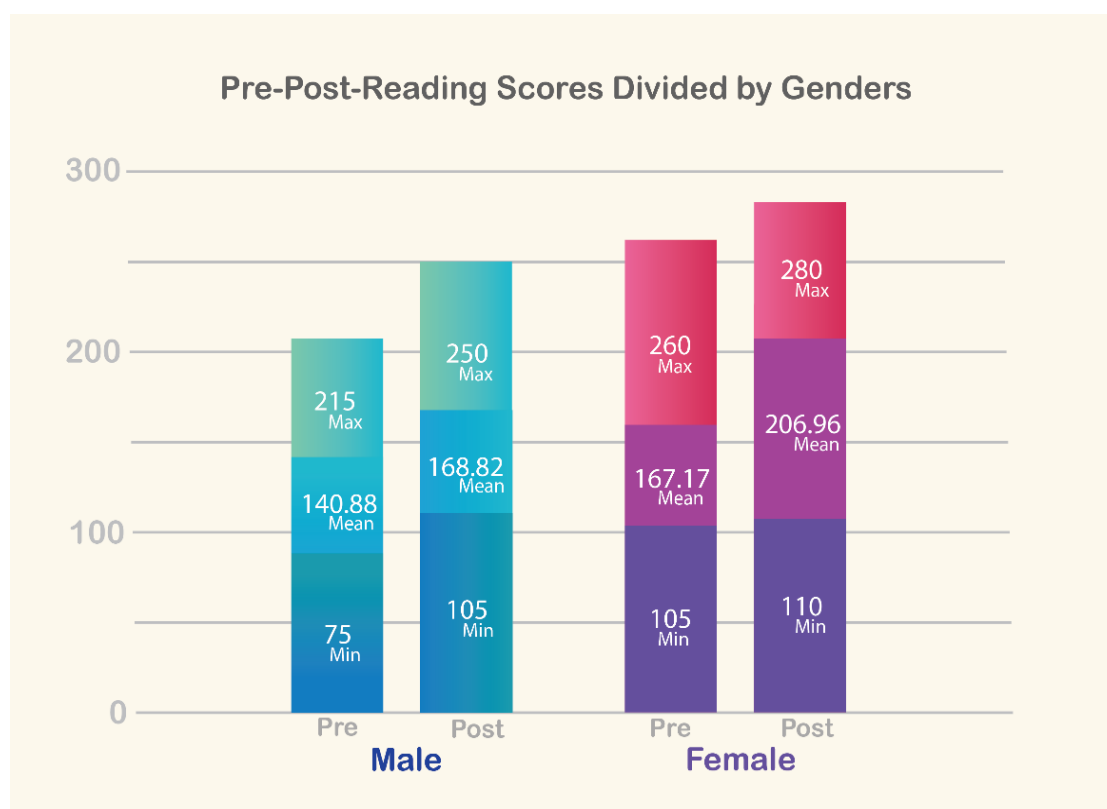


Figure 40 Development of Students' TOEIC Reading Scores
Compared by Their Genders

It can be clearly seen in Figure 40 that the students in both genders, male and female, had some development in English reading skills as their post-test mean score is higher than their pre-test. To be more specific, the male students had some development in English reading skills as their post-test mean score is 168.82 which is higher than that of their pre-test, 140.88, at 27.94. Similarly, the female students'

mean score of the pre-test, 206.96, is also higher than that of their pre-test, 167.17, at 39.79. Overall, the female students had higher development of English listening skills than the male students.

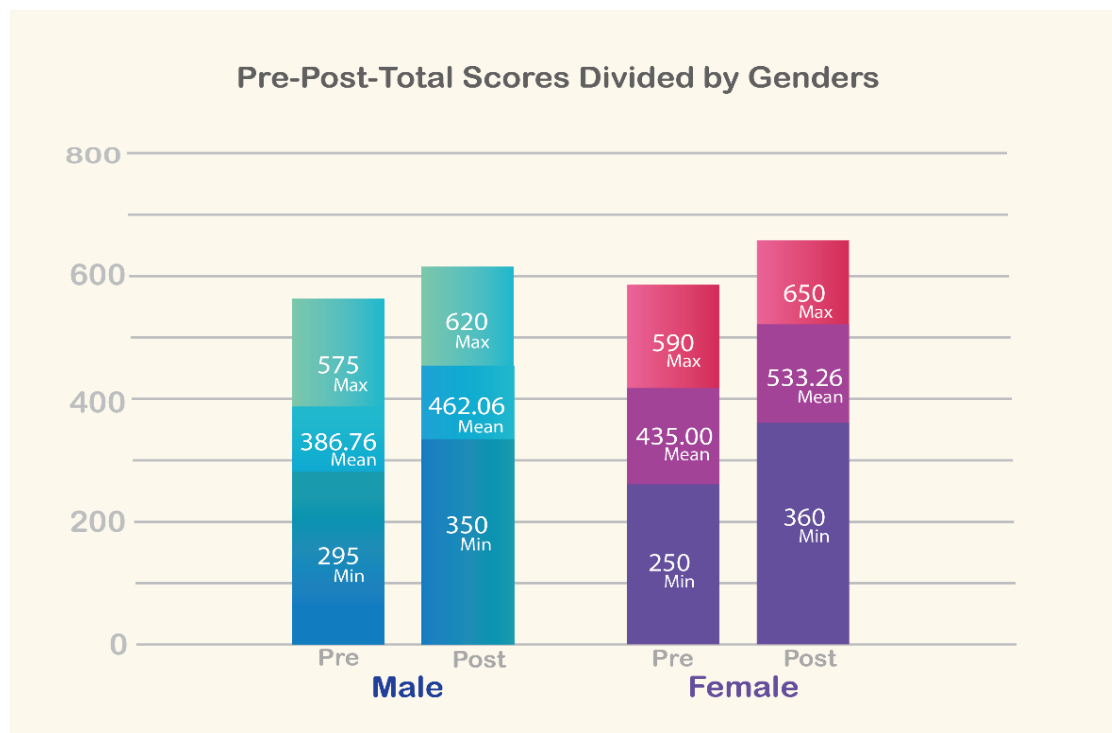


Figure 41 Development of Students' TOEIC Total Scores
Compared by Their Genders

It can be clearly seen in Figure 41 that the students in both genders, males, and females, had some development in English receptive skills as their post-test mean score is higher than their pre-test. To be more specific, the male students had some development in English reading skills as their post-test mean score is 462.06 which is higher than that of their pre-test, 386.76, at 75.30. Similarly, the female students' mean score of the pre-test, 533.26, is also higher than that of their pre-test, 435.00, at 98.26. Overall, the female students had higher development of English listening skills than the male students.

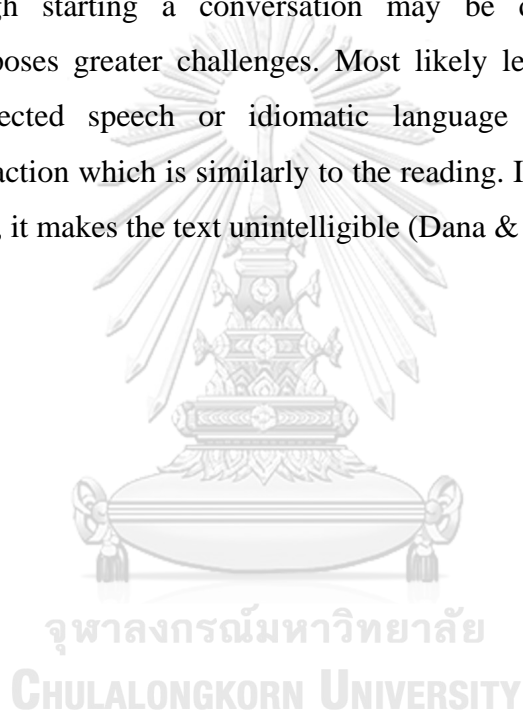
Table 27 Students' Receptive Skills Development

Students' Receptive Skills Development								
Variables		N (40)	Mean (pre-test)	TOEIC Level of Proficiency	Mean (post-test)	TOEIC Level of Proficiency	CEFR Levels	Percentage of Development
Years of Study	Year 1	18	422.22	Elementary Proficiency Plus	541.39	Elementary Proficiency Plus	A2	12.04
	Year 2	12	411.67	Elementary Proficiency Plus	476.25	Elementary Proficiency Plus	A2	6.53
	Year 3	10	404.00	Elementary Proficiency	466.00	Elementary Proficiency Plus	A2	6.26
Fields of Study	Sci	20	407.50	Elementary Proficiency Plus	464.25	Elementary Proficiency Plus	A2	5.73
	Soc	20	421.50	Elementary Proficiency Plus	541.75	Elementary Proficiency Plus	A2	12.14
Genders	Male	17	386.76	Elementary Proficiency	462.06	Elementary Proficiency Plus	A2	7.6
	Female	23	435.00	Elementary Proficiency Plus	533.26	Elementary Proficiency Plus	A2	9.92

It can be clearly seen that the students had some English receptive skills after applying the prototype into the teaching methodology through ten lesson plans shown in Table 27. Though the TOEIC mean scores of each variable did not show their level of development considered by the CEFR levels, there are some TOEIC level of proficiency development. To illustrate, the students in year three have develop their receptive skills from the Elementary proficiency level to the Elementary proficiency plus level with the percentage of development of 6.26. The male students have also achieved their proficiency levels of English receptive skills from the Elementary proficiency level to the Elementary proficiency plus level with the percentage of development of 7.6. Considering the percentage of development, the social science students have achieved the highest level at the percentage of 12.14 followed by the freshmen with the percentage of 12.04, while the least were students from science with the percentage of development of 5.73. To summarize,

all students have positively developed their English receptive skills after having finished the ten lesson plan classes through the virtual platforms applied in the prototype.

In brief, applying the prototype for developing the students' receptive skills through the 10-week lessons shows some significant development confirmed by the post-test English TOEIC scores as developing receptive skills can be particularly challenging especially when communicating with a fluent or native speaker. Although starting a conversation may be done with relative ease, maintaining one poses greater challenges. Most likely learners may not recognize features of connected speech or idiomatic language which may lead to an unsuccessful interaction which is similarly to the reading. If the language or grammar is too complicated, it makes the text unintelligible (Dana & Tagg, 1996).



CHAPTER V

A FLIPPED CLASSROOM-BASED VIRTUAL LEARNING SYSTEM PROTOTYPE FOR DEVELOPING UNDERGRADUATE STUDENTS' ENGLISH RECEPTIVE SKILLS

Executive Summary

To develop English receptive skills of the undergraduate students in Thai higher education institutions, the virtual learning platforms have been applied as they are as if the central methodology in creating the learning system prototype. In other words, the virtual learning or VL can be defined as a synchronous learning, in which students and instructors are simultaneously present on the system and have instant communications, and a significant place in the distance education process. The use of synchronous immersive virtual learning environment can offer opportunities for social interaction in a virtual classroom space as they are mostly preferred in synchronous distance education systems. VL also allows students and instructors from different geographic places to have a class by the help of audio-visual communication via video conferencing software.

They are, moreover, offer extensive meeting set-up features, provide both moderators and users with effective options for interaction and learning. On top of that, they also have several interactive characteristics which allow students and instructors to communicate orally, exchange messages through typing, share PowerPoint presentations, transmit video, surf websites together, and more (Engle & Parent-Stevens, 1999). In brief, there are three main virtual platforms applied in this learning system prototype for developing student' receptive skills, which are Second Life, VRChat, and ClassStart. The prototype is not only accounted for the VL platforms, yet the other 10 lesson plans with virtual tasks required for specific procedure of teaching and learning are inclusive.

Rationale and the Objectives of the VL Prototype

After getting the results from the first objective of the study which can explain how the English proficiency of the Thai undergraduates' is, the average score has been applied to purposively select the samples and design the prototype for developing students' English receptive skills. In response to the second research question of how to develop the prototype of virtual learning as a tool implemented in flipped classrooms in improving Thai undergraduates' English receptive skills, the flipped classroom based virtual learning system prototype which are combined three VL namely the Second Life, VRChat, and ClassStart, and its procedure have been created.

To be more specific, the Second Life implemented in this prototype is one of the platforms the teacher and students having interaction and communication in teaching and learning for developing the students' receptive skills especially for the reading skills through the lessons and virtual tasks prepared by the teacher. is a three-dimensional learning platform in a real-life environment. As developed by Linden Labs, second life can be accessible through the Web free of charge. Second life users can make an avatar which shows their presence and identity (Mathews et al., 2012; Dickey, 2003). The avatar also serves as users' eyes to view 3D virtual environments. The functions of avatars are various. That is, they can walk, fly, and teleport in simulated environments which cause many types of activities. VRChat is another effective platform applied in this prototype as it is a multiplayer online VR game. Although its name contains "VR", for some of its game functions, VR devices are not necessary. VRChat allows players to have their own image, to design their own rooms, to chat with other players in the square, and to play with friends or to watch movies in the game module. The high degree of freedom and creativity of VRChat make it all the rage. Another platform applied in this prototype is the program called "ClassStart" which is the virtual platform enables teachers and students to connect to each other via computer's microphone to talk in real-time for developing their English skills. Text as well as audio chat are available for communication. It also stores all the data after working on the lessons in the virtual space. It is available for later access. It helps students revise all the lessons they have learnt. It enables teachers to give a

pictorial representation to all the lesson concepts concerning the English receptive skills lessons together with the collaborative work can be more engaging with the students of this feature.

Three-Step Model for Developing VL Prototype

To have the prototype is ready to be applied in teaching and learning for developing students' English receptive skills, the five-step model as an action plan is suggested as follows:

First: Designing Lesson Plans

English educators are required to prepare 10 lesson plans for the prototype. They are divided into two main sections, its lesson plan and instructional plan. The first section includes of the lesson title, the subject area which is English, and applied similarly to all lessons together with the education level, undergraduates. The time needed in each lesson is 120 minutes. The lesson also mentions about the language skill either listening or reading focused in each lesson preceding its materials applied, learning resources and assessments. In terms of the instructional plan, there are two main stages in each lesson. The stage one itself is about studying virtually at home as a pre-class and after class through specific virtual learning platform, the ClassStart by themselves while the stage two is concerning the in-virtual-class through the virtual learning platforms, Second Life or VR Chat. To be more specific, the stage two includes of three main steps. The first step is about the teacher student discussion session while the following step is concerning the teacher guided virtual activities. The last step in the stage two is about giving feedback session after having virtual activity in step two.

Second: Developing VL Platforms

After having 10 lesson plans done in the first step, educators or developers need to develop the virtual platforms in different ways. To be more specific, the Second Life is a free ready virtual platform which can be explored by the educators freely concerning each specific virtual islands that suit the topics set in the earlier lesson plans by online registration for having a free account without the need of

programming skills of innovating the virtual platform. The VRChat, in contrast, is programming skill needed. To prepare the virtual world in the VRChat, the educator or developer need to apply some programming knowledge namely the Unity program for having original virtual world platform. However, the ClassStart program is a ready use virtual classroom management program that the educators can have the account registered themselves and explore the application can be applied in teaching and learning. All procedure, its components and details will be explained in the following section.

Third: Applying Contents of Each Lesson Plan into the Developed VL Platforms

The contents in the lesson plan such as videos, clips, virtual tasks will be implemented into different developed virtual platforms. The clips and videos will be posted either the VRChat or the ClassStart mentioned in the lesson plans for example. The virtual tasks are posted via the ClassStart instead of other virtual platforms.

The Components of the VL Prototype

Second Life

As one of the main platforms applied in the prototype of teaching and learning in this study, the Second Life platform can be implemented in teaching the class by both educators and students as all registered members can play either the roles of an educator or the learners. However, both educators and students are required to register as a member of this free platform before joining the activities happened by following the procedures summarized as follows:

1. Registering for a membership in Second Life

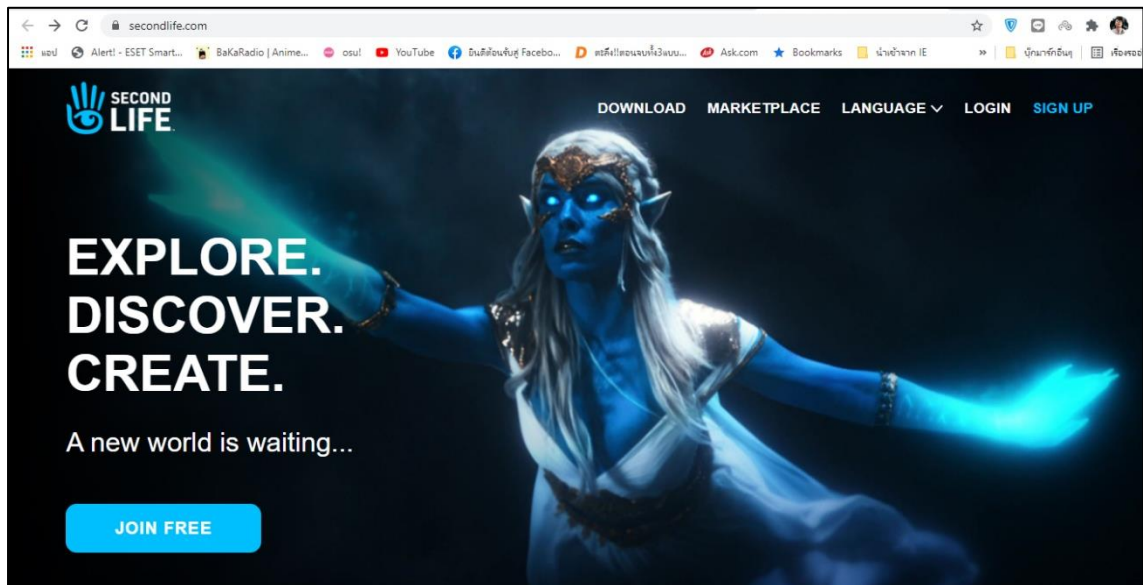
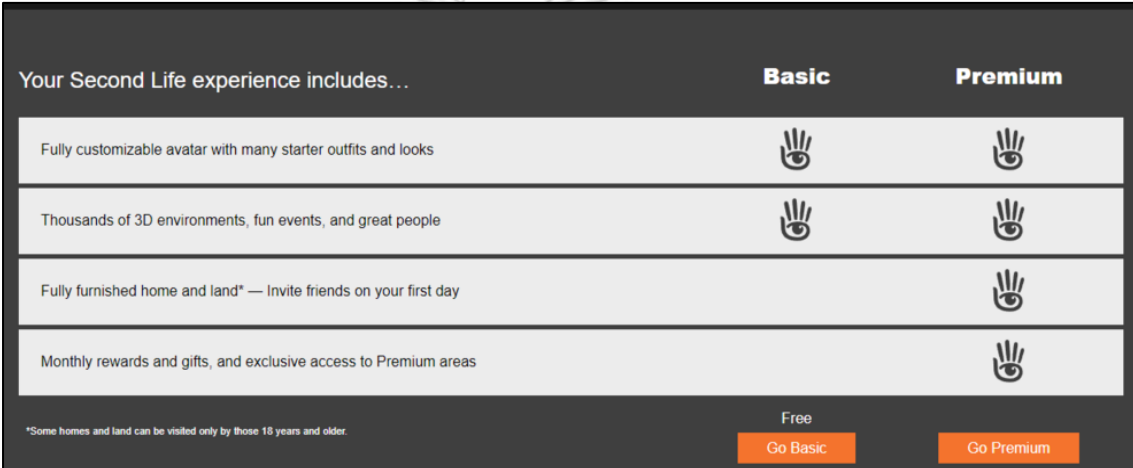


Figure 42 How to register for a member Second Life

After getting into the website of www.secondlife.com, you will be brought to the page shown in Figure 42. To register as a new member, you need to click on the link of “SIGN UP”, and the blanks of needed information to be filled will be shown (Figure 43).

Figure 43 How to provide the account information for a member of Second Life

Not only filling your username, e-mail, creating password, your date of birth, choosing the security question and its answer, confirming of not being a robot, and confirming to follow the regulations, choosing your own free avatar on the left is required before clicking the button of “CREATE MY NEW ACCOUNT” for final step of the registration. Your avatar will represent yourself, or how you will appear while being online in the Second Life. However, you can change the avatar later if you change your mind. Your username registered earlier also appear above your avatar while being online, but you can choose a display name later if you want to change later.



Your Second Life experience includes...	Basic	Premium
Fully customizable avatar with many starter outfits and looks	Hand icon	Hand icon
Thousands of 3D environments, fun events, and great people	Hand icon	Hand icon
Fully furnished home and land* — Invite friends on your first day		Hand icon
Monthly rewards and gifts, and exclusive access to Premium areas		Hand icon

Free

*Some homes and land can be visited only by those 18 years and older.

Go Basic Go Premium

Figure 44 Membership level in Second Life

Next step after confirmation of account information is to choose the membership level. It is advised for the students joining only the basic member level as it is free to join without any payments, but the educator might need to register as a premium member level if needed as you will get some benefits more which you can find the information provided shown on the left in Figure 44. After clicking the orange button of “Go Basic”, your membership is ready to explore the world of Second Life, and you will be brought to the next page which is required to follow the instruction for the next procedure (Figure 45).

2. Downloading and installing for the Second Life platform

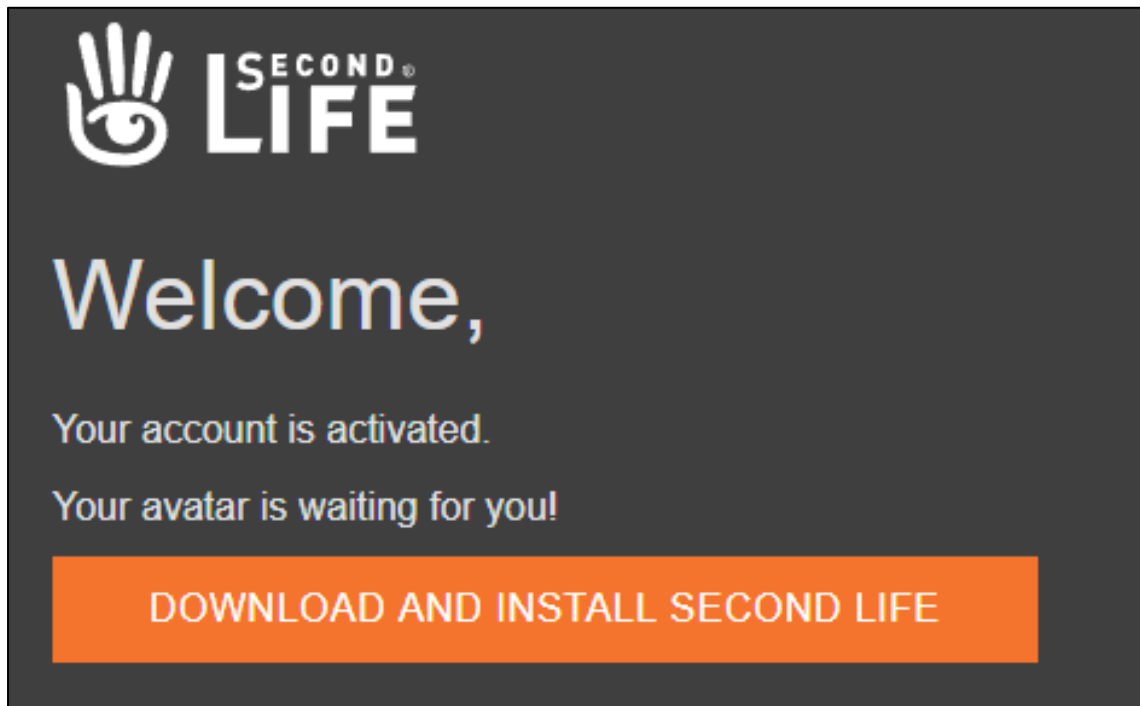


Figure 45 Start downloading and installing the Second Life platform

To enjoy the Second Life, students are required to download and install the Second Life Viewer program which can be run through both Windows and Mac OS. By clicking the orange button link shown in Figure 45, the program will be run automatically, or the students may need to run manually in case it cannot be installed automatically.

3. Exploring the Second Life

Students can start enjoying the Second Life by logging into the Second Life Viewer program using the registered username. The first time of logging into the program, the users will be shown the first area named Learning Island (Figure 46) for new users to learn the basic skills needed in joining or interacting in the virtual world of Second Life through their own avatars.



Figure 46 Learning Island

The basic skills needed to learn for students in joining the Second Life through their own avatars are as follows:

Walking

The students will be required to know how to walk in four different ways:

1. Clicking to walk is to click on any ground area at the point you want to go. The avatar will not be moved if the mouse pointer is turned into a hand instead of an arrow, yet the avatar will be instead interacted with other objects under the mouse pointer.

2. Using the arrow keys; the up-arrow ↑ and down-arrow ↓ keys are for the avatar walking forward or backward. The left-arrow ← and right-arrow → keys are also for turning the avatar left or right.

3. Using the W, S, A, and D keys; the W and S keys are for making the avatar walk forward and backward. The A and D keys are for turning the avatar left and right.

4. Clicking the Walk/Run/Fly button is for opening the Movement controls. The students can simply click the direction needed to move or choose to toggle between walk, run, and fly modes.

Running

By simply double-clicking the **W** or up-arrow **↑** key, the avatar will run easily, and the students can make the avatar run backward by double-clicking **S** or the down-arrow **↓** key (Figure 46).



Figure 47 Making Avatar Run

Flying

Making the avatar fly is a fun way to move around the island faster compared by walking or running though there are some regions which are not allowed to fly. By pressing and holding the **Page Up** key or the **E** key, the avatar will be flying and pressing and holding the **Page Down** key or the **C** key for the avatar to be landed (Figure 48), and the students can use the same keys to move in the air as the keys used in walking.



Figure 48 Making Avatar Fly

Text chatting

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CHULALONGKORN UNIVERSITY

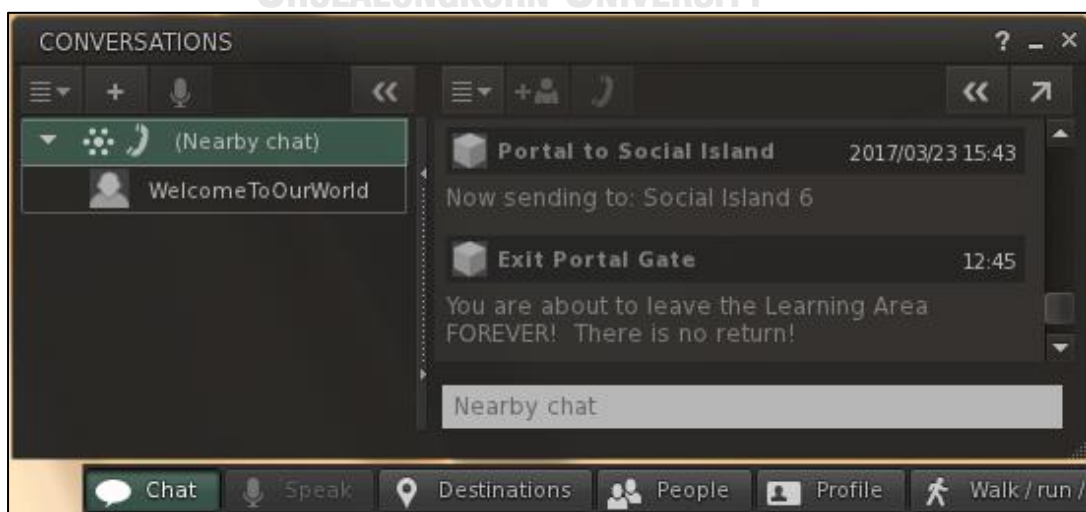



Figure 49 Text Chatting

Apart from interacting and roaming in regions by walking, running, or flying, students and educators can communicate through the chat box. By clicking the Chat button in the bottom toolbar, students or educators in the same regions and living nearby can chat by texting. Every avatar within twenty meters can see what appear in the chat box. To click the triangle icon in the chat field, the recent chat history is shown (Figure 49).

Changing the avatar

To change the avatar, students can click the **Avatar**  button, but only the free provided avatars can be chosen. Students can also choose different looks of avatar available.

Interacting with objects



Figure 50 Interacting Objects Button

When the students interact with objects in the room or any area in regions such as a chair, a table or any other furniture, simply right clicking will show the icons can be chosen and follow any provided actions such as Sit here, Stand up, Zoom in, or Touch, needed. After mousing over the icon such as the Stand button, the avatar will be sat on the furniture selected.



Figure 51 Controlling Media Button

Figure 51 shows different buttons that the students can adjust for media entertainment as many areas in the regions of the virtual world of the Second Life are implemented with the different audio and sound for the users having more fun. The students can easily adjust by controlling the buttons in the upper right of the Viewer window to control the volume of the audio or turning it off entirely by de-selecting the box to the right. The students can also use the **Pause** button to the left of the main volume control button which allows to start or stop streaming videos or media.

Using voice chat

As the program allows the students to enjoy using their voice while communicating to each other, the students can simply need to set up a headset or speakers and a microphone and click the button of Speak shown in Figure 52 so that they can sound their voice to other avatars nearby.

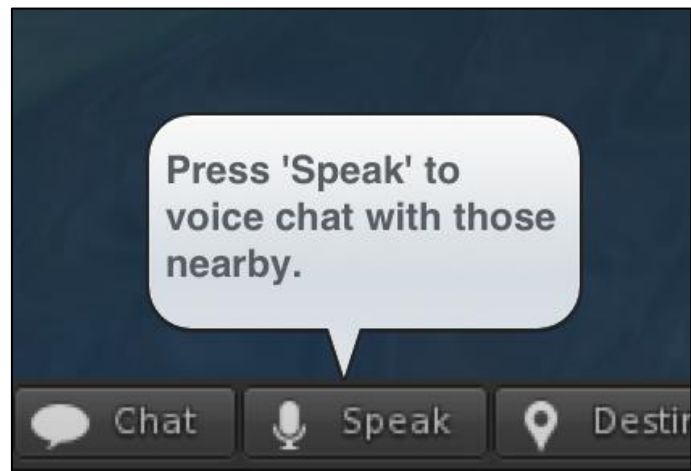


Figure 52 Controlling Speaking Button

Voice dots



Figure 53 Voice Dot Signal

It can be clearly seen in Figure 53 that there is a bright white dot surrounded by green semi-circular signal which symbolizes the enabled voice students can use their voice in communicating with the avatars nearby. It also means the skill application is ready to be used. If the signal does not appear over the avatar, the voicing skill to communicate with other avatars nearby is not ready yet. The students can re-check their tools such as microphone or earphone set and sound again. To make sure if this skill can be effectively used, the students can sound and ask the avatar around them if they hear the sound.

Samples research activities happened in the Second Life.



Figure 54 Reading Class Activity in Library Land Region

Library Land is one of the regions which the students and teacher having activities together for reading lesson. Figure 54 shows that students are having discussion and the chat box on the right top of the screen shows another communication channel that they enjoyed while having activities. You can clearly see that students and teacher can choose any free avatars provided with different features such as human, animals, or unknown characters which have no difference in terms of controlling or interacting.

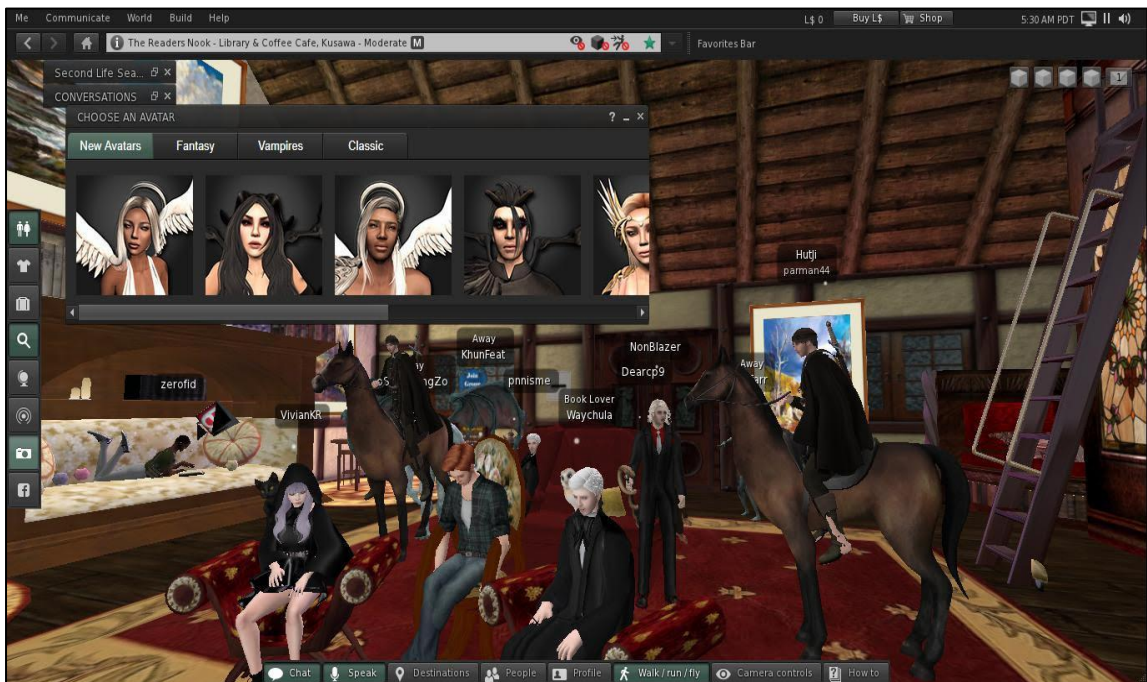


Figure 55 Reading Class Activity in The Readers Nook Region 1

While listening the lecture or instructions from the teacher, students can change their free avatar features provided shown in Figure 55. So that changing the avatar characters can happen anytime, yet the registered name of them cannot be changed while joining or exploring the Second Life regions though they can get back to change their username in the registration system. The teacher and the students themselves can recognize their friends by considering the name shown over each avatar in case they need to call their name or having interaction among themselves.



Figure 56 Reading Class Activity in The Readers Nook Region 2

Figure 56 shows that the students joining the activity in The Readers Nook region are using the voice through their microphone in communication with their friends. The voice dot appear over the one who is using voice to sound friends nearby, and this activity is also shown in the chat box on the top right of the screen which is shown in orange color for the ones who are using this skill. The basic movement skills box is also shown in the bottom of the screen which the students and teacher can choose if they want to walk, run, or fly. In case they need to walk, another square box will be shown in the lower middle of the screen which is included of the direction arrows.



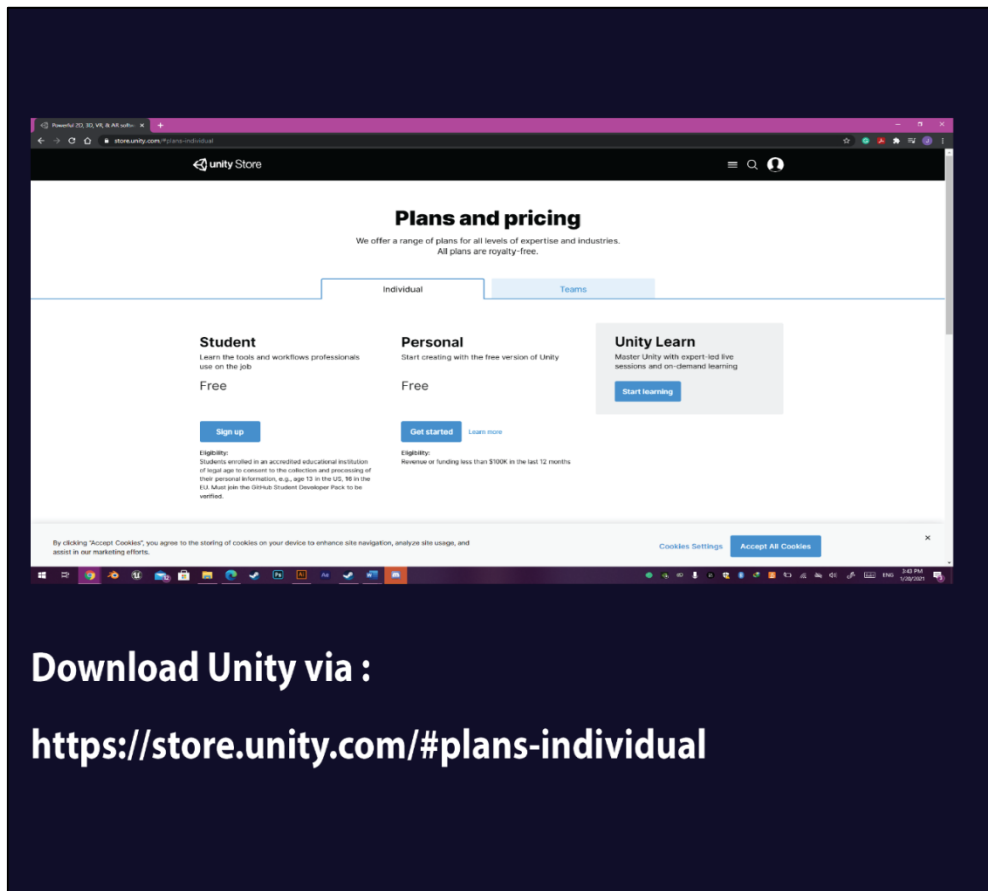
Figure 57 Reading Class Activity in Community Virtual Library Region

Figure 57 shows the students are having activities while enjoying the reading class in Community Virtual Library Region. The chat box on the top right of the screen shows the name of the students and teacher participating in this room together with the text typed by the teacher as the instruction of the activity. Students and teacher can interact both via the text in chat box or using the voice button for communicating via sound through their microphone with the avatars nearby.

VRChat virtual learning platform

Another virtual platform applied in this study is the VRChat. As the virtual platform, there are several steps in creating the specific learning space for the students in this study which is summarized in the following sections. The steps of how to join the program is also mentioned.

1. Creating VRChat Room



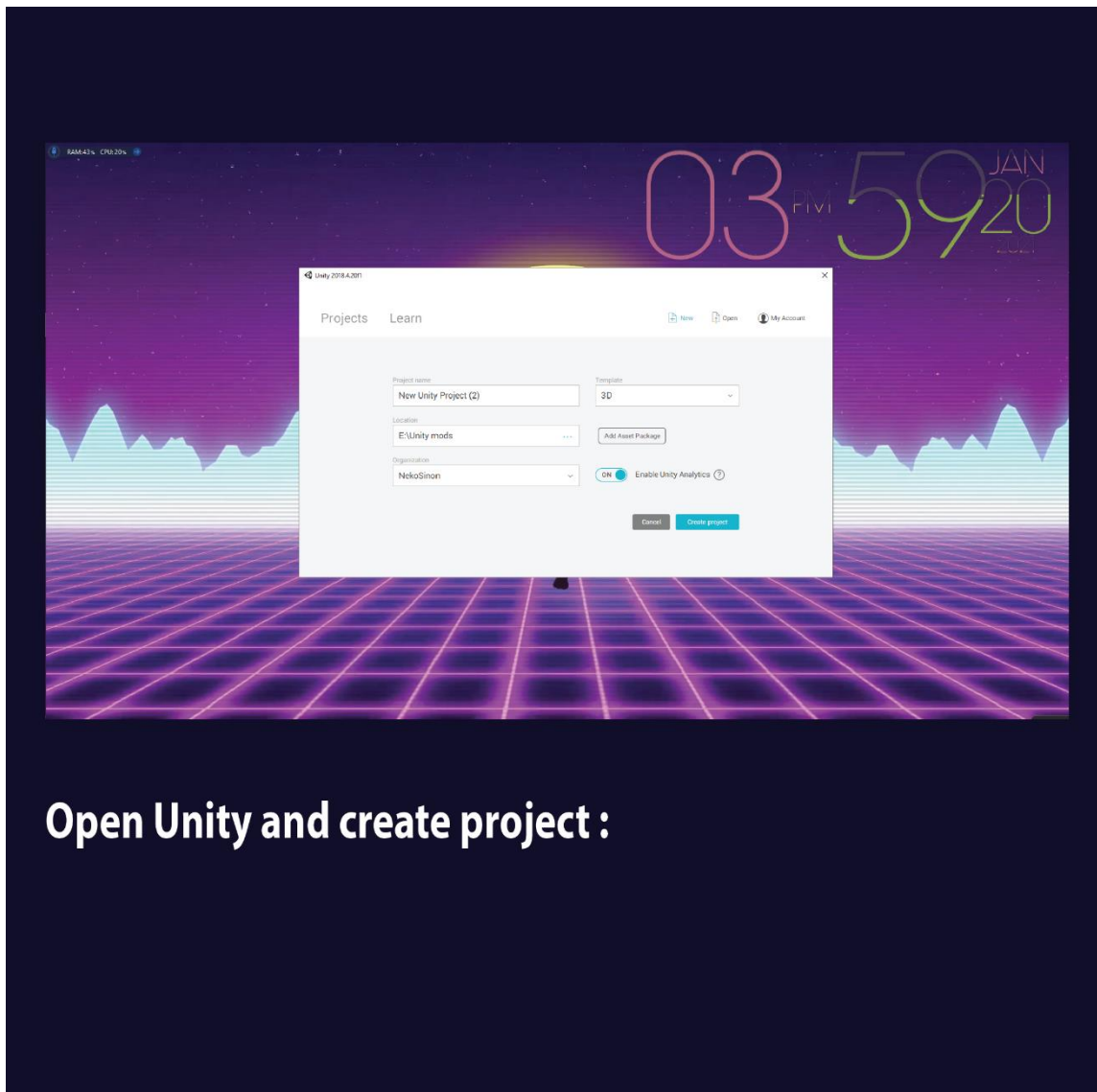
Download Unity via :
<https://store.unity.com/#plans-individual>

Figure 58 First Step of Creating VRChat Room

To start creating VRChat room, it is firstly required to go to the website of <http://vrchat.com/home/download>. After getting into the website, the page in Figure 58 will be shown. The download link (blue button) of the SDK2 which is the VRChat program is shown, and you can immediately click that link to get the program.

Figure 59 Second Step of Creating VRChat Room

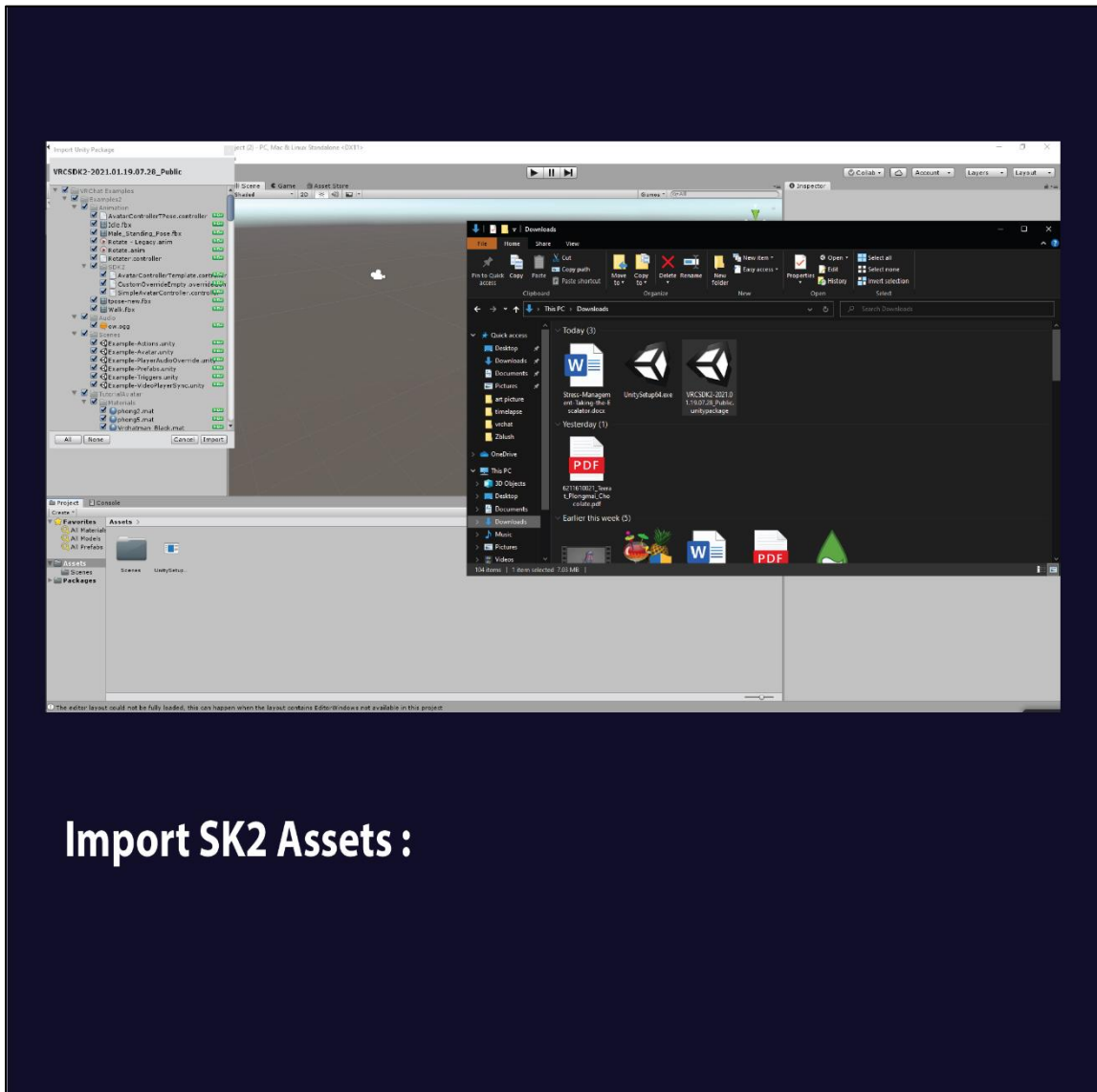
After downloading the SDK2 in step 1, it is required to download another important program for VRChat room creation which is the Unity program. It can be downloaded from the website link of <https://store.unity.com/#plans-individual>. The educator will be shown the table of plans and pricing of the Unity program shown in Figure 59 to be selected, but the student preference has been selected for this research as it is free for educational purposes.



Open Unity and create project :

Figure 60 Step 3 Creating Project via Unity

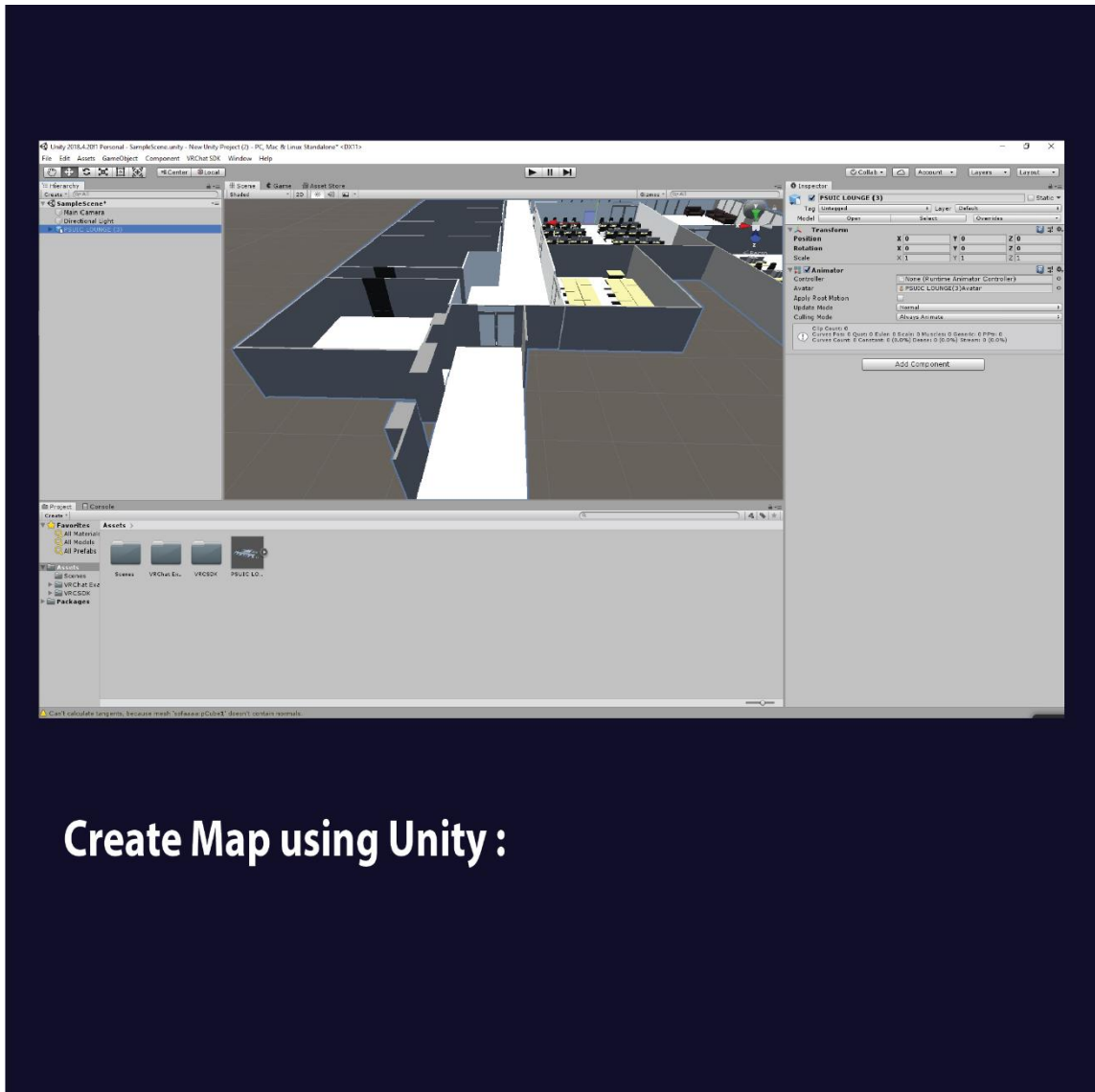
To start creating the learning room platform in VRChat, the Unity program is needed. After downloading the Unity program, it is required to be opened and the screen in Figure 48 will be shown which is selecting to create project should be done. After filling the name of the project and other information in the blank, the next step required is to import SK2 Assets shown in Figure 60.



Import SK2 Assets :

Figure 61 Step 4 Importing SK2 Assets into the Unity program

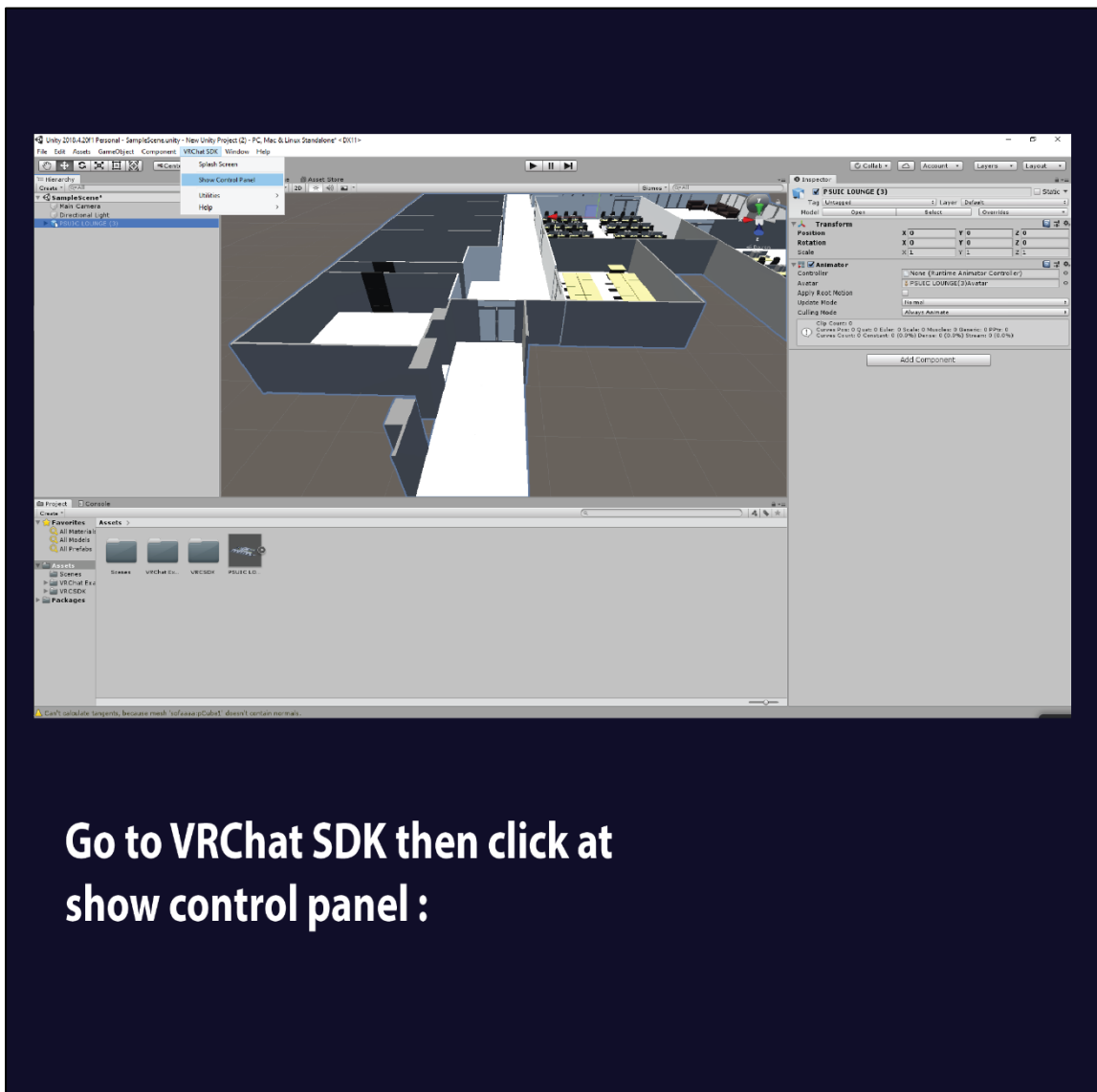
After creating the new project in the Unity, the next step is to import prepared SK2 assets which are all the files of media or documents concerning learning materials designed for teaching and learning following the lesson plans mentioned earlier. The sample files can be seen in Figure 61 which are the Microsoft word, PDF, and other media documents can be attached and imported to the Unity program project.



Create Map using Unity :

Figure 62 Step 5 Creating Map in the Unity program

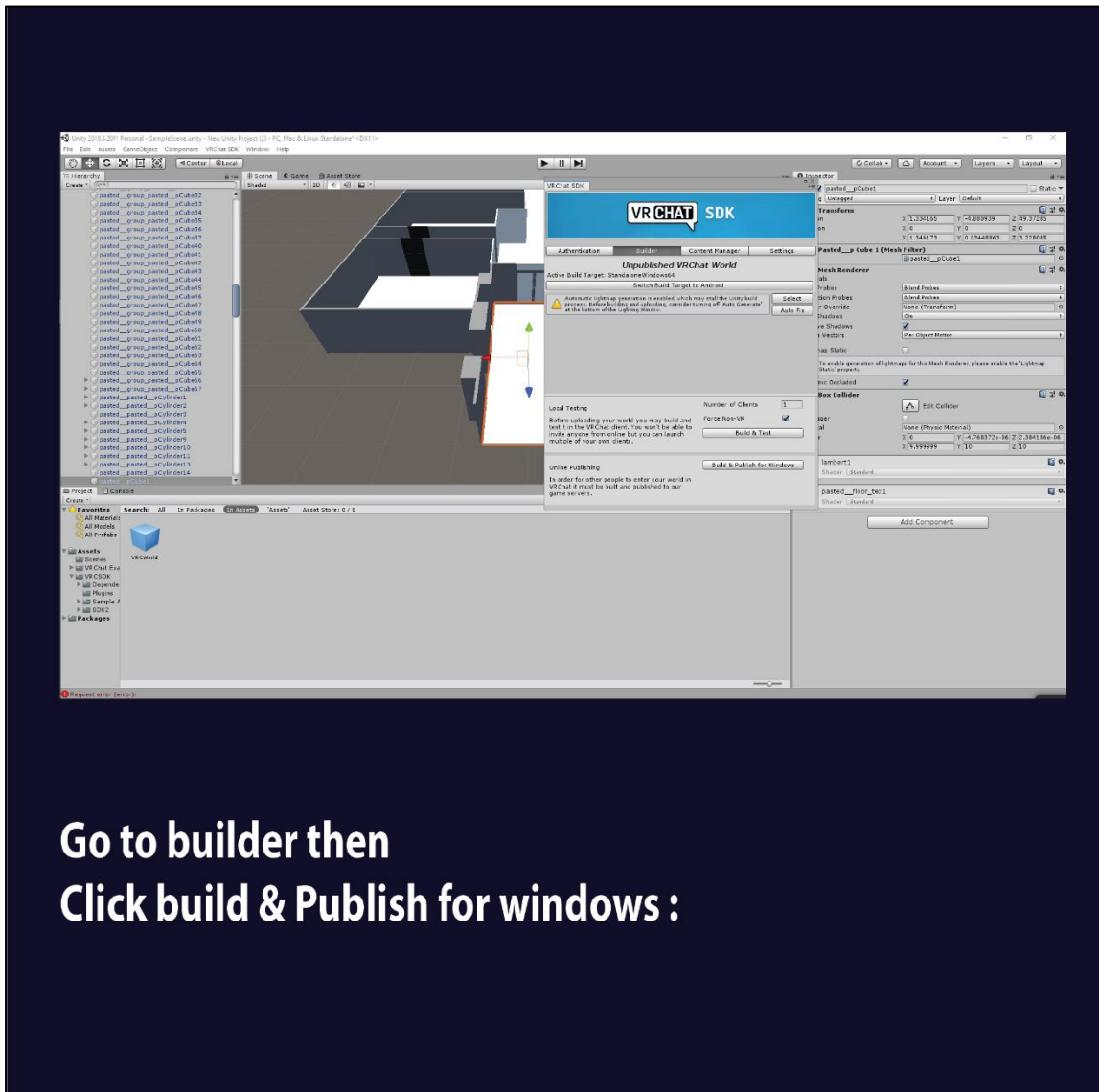
When all the assets are prepared in the previous steps, it is required to get back to the unity program to create the map. In other words, the map here is the plan of how to put or design the rooms and the objects needed to be included in the room of VRChat virtual platform. It can be clearly seen in Figure 62 that room plan in this project is simulatively designed following the room plan in the college. Some chairs and tables are included together with other appliances such as the projectors, the monitors, and other facilities required in the classroom.



Go to VRChat SDK then click at show control panel :

Figure 63 Step 6 Applying Map into VRChat Platform

After all the rooms and objects are created in the step of mapping via the Unity program, the next step is going back to the VRChat SDK program and find the icon of the link of show control panel (Figure 63), then click that link.



**Go to builder then
Click build & Publish for windows :**

Figure 64 Step 7 Publishing the Map into VRChat Platform

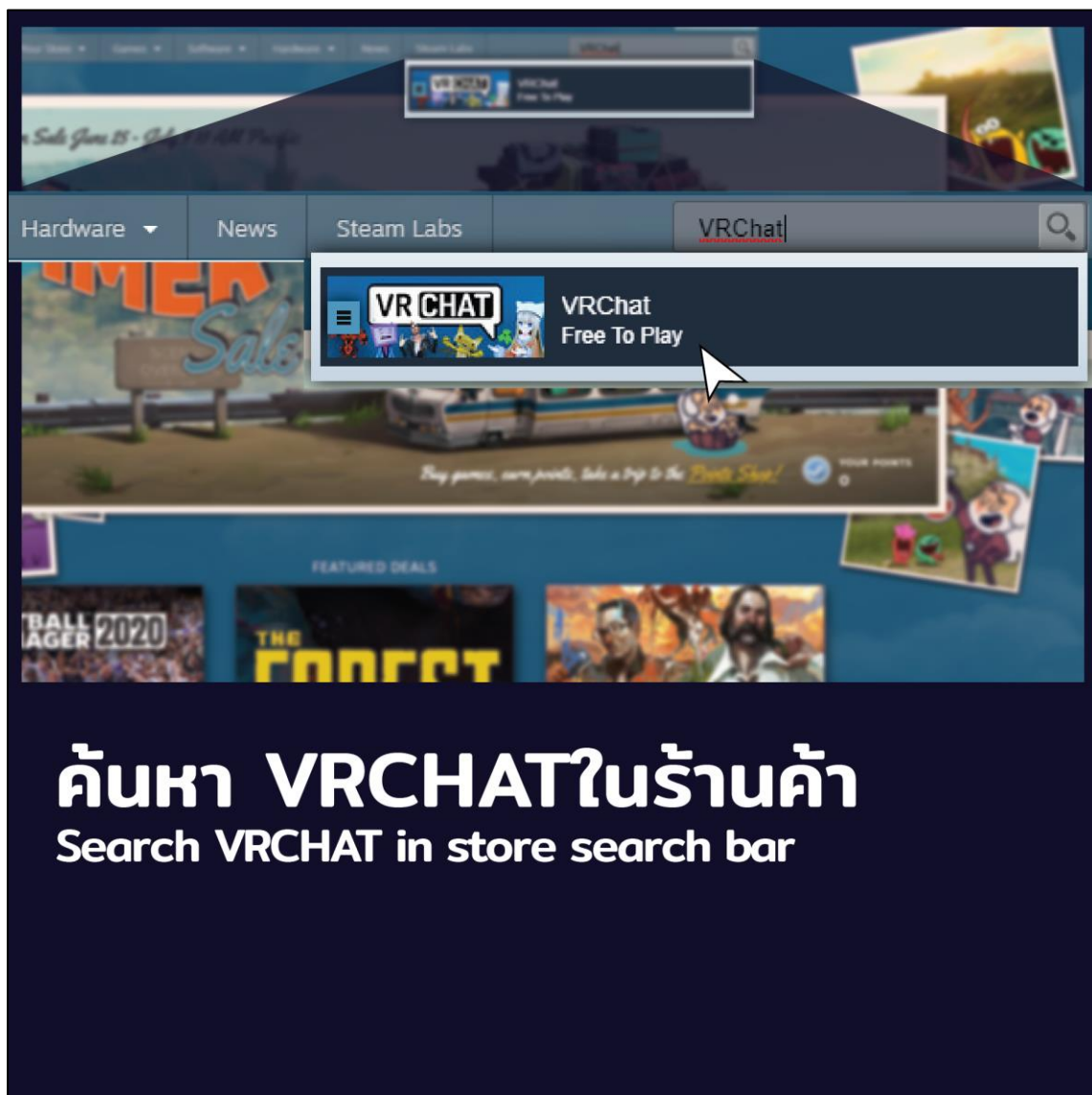
To import all the created objects and the room from the Unity program, clicking the link of build and publish for windows shown in Figure 64 is importing all the objects and room in the map into the VRChat platform. So that the designed VRChat virtual platform is ready to be explored.

2. Exploring VRChat Learning Platform



Figure 65 Installing and Creating STEAM Account

To get started exploring the VRChat learning platform created from the previous step, students need to install another program called STEAM which is needed in running the VRChat platform. By visiting the website of <https://store.steampowered.com/?l=thai>, the page in Figure 65 will be shown, and the installation green link appear in the top right of the page, “ติดตั้ง Steam”. Students can just click the link, and the program will be automatically run and installed into the computer. The students also need to create their own STEAM account by filling the information in the blank of the create new account.



ค้นหา VRCHATในร้านค้า

Search VRCHAT in store search bar

Figure 66 Searching VRChat from STEAM Website

After having account and installing the STEAM, the students can go to the Store bar (ร้านค้า) which a searching bar is on the top right of the page. Typing the word “VRChat” in the searching bar will lead to the page appear the VRChat program as shown in Figure 66. By clicking the VRChat program icon, the page will automatically show another step of getting into the virtual platform VRChat.

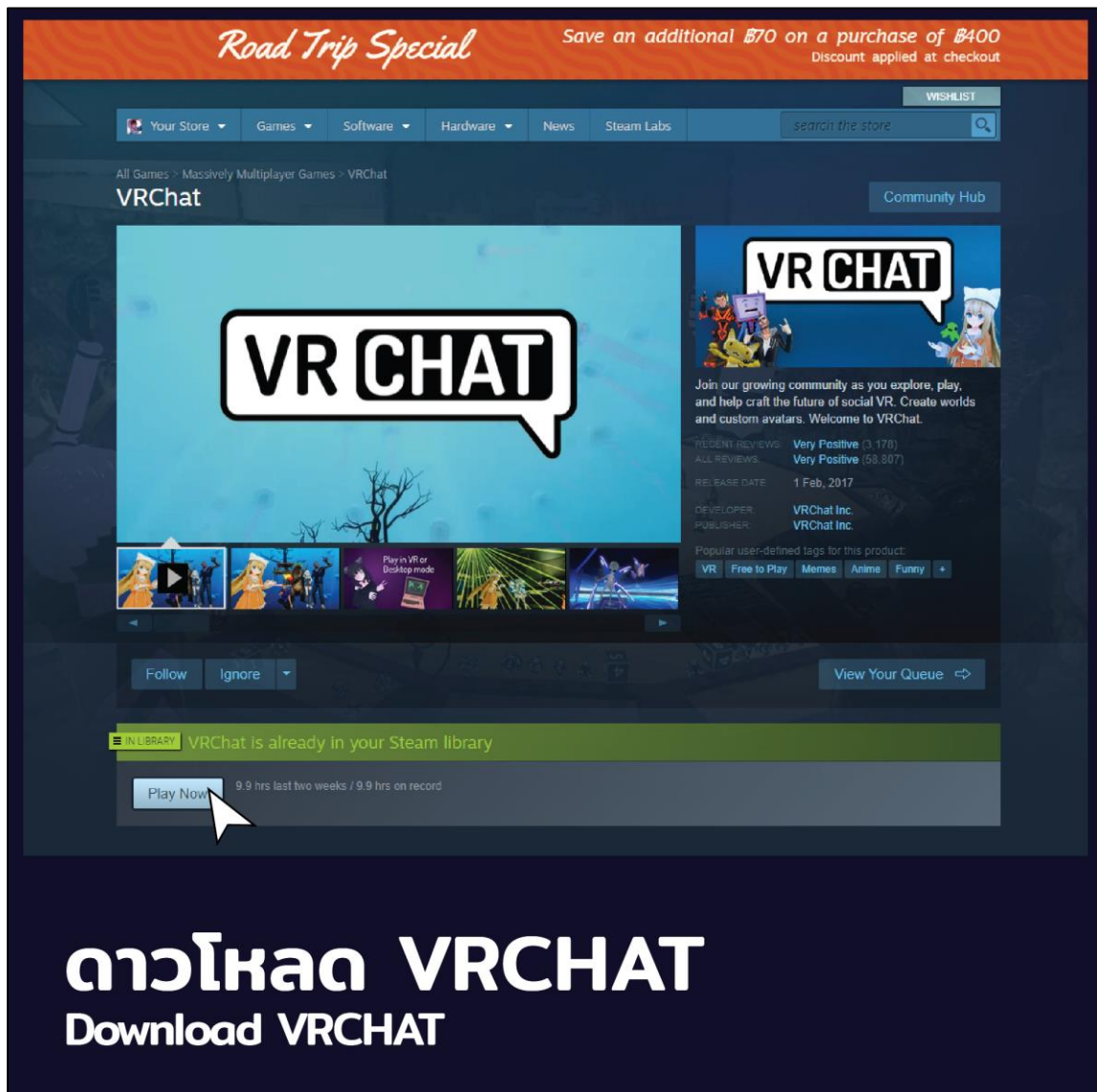


Figure 67 Downloading VRChat Program

The step of downloading VRChat program can be started easily after the page shows the VRChat program picture after searching in the previous step. The students can just click at the link of “Play Now” shown in Figure 67 to start launching the VRchat program into the computer.

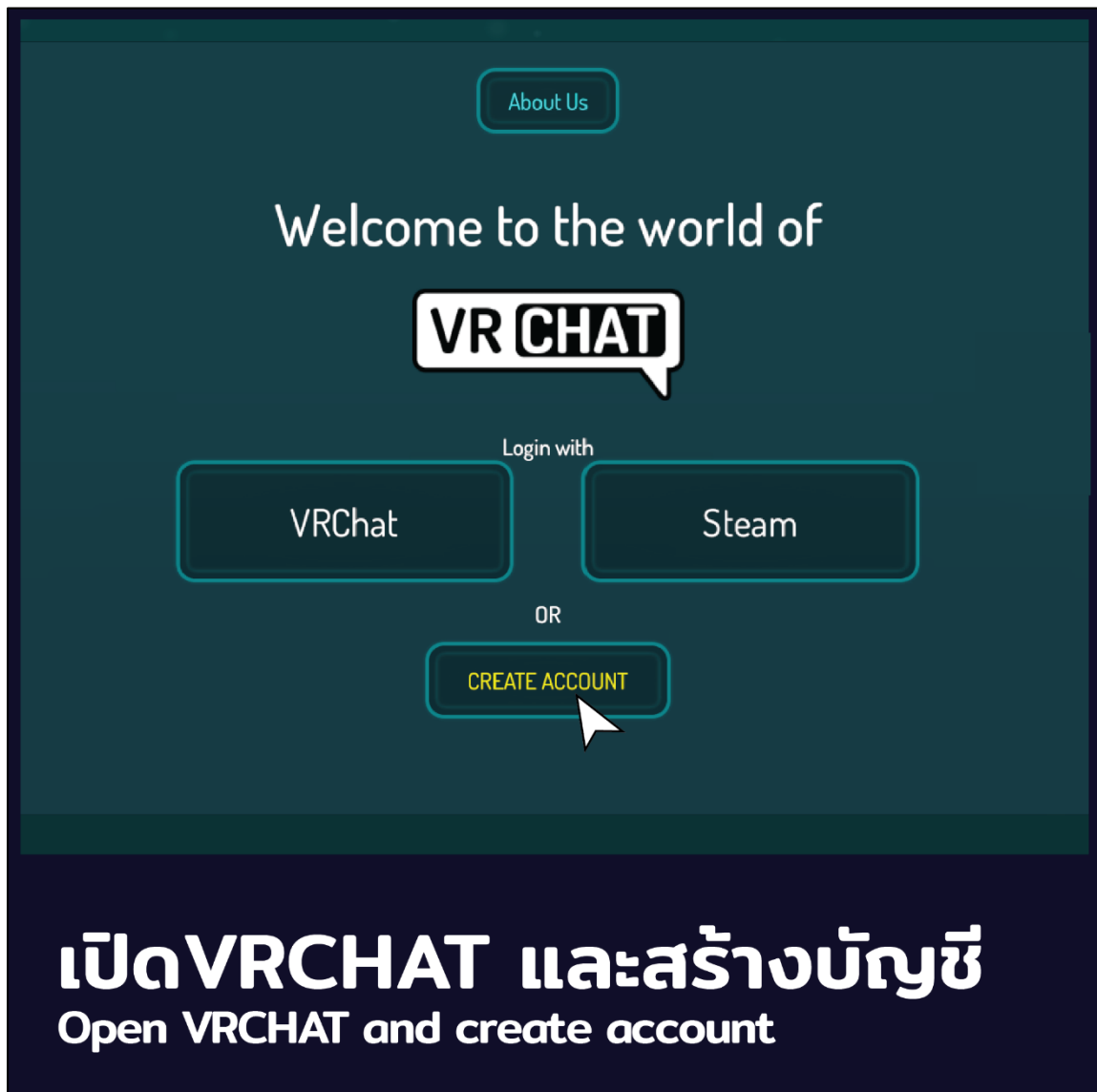


Figure 68 Opening VRChat Program

After downloading the VRChat program, students can start exploring the virtual world of VRChat by creating the VRChat account by clicking the link of "CREATE ACCOUNT" shown in Figure 68 on the first page of VRChat program.

****Username****
 ให้น้องๆตั้งชื่อขึ้นต้นด้วย N.
 แล้วตามด้วยชื่อเล่นของน้องๆ
 อย่างเช่น " N.JOE " , " N.JJ "

Register your account name
 start with N. then follow with
 your nickname

Example " N.JOE " , " N.JJ "

REGISTER FOR AN ACCOUNT

Choose a Username: ✓
 N.SAMOIC08

Email: ✓
 psuicsamo8@gmail.com

Re-Enter Email: ✓
 psuicsamo8@gmail.com

Password: ✓

Re-Enter Password: ✓

Date of Birth: ✓
 April 10 2000

I have read and agree to the [Community Guidelines](#), [Terms of Service](#) and [Privacy Policy](#)

I'm not a robot 

Keep me up to date with the awesome power of your emails

Create Account

ลงทะเบียนให้เรียบร้อย
Registration

Figure 69 VRChat Account Registration

To register the new account, clicking the link of Registration on the top of the page shown in Figure 69 will show the students the blanks needed to be filled. There are six main blanks needed to be filled which are username, e-mail, re-enter e-mail, password, re-enter password, and the date of birth. After filling all the blanks, ticking another two boxes at the lower part, and clicking the Create Account link are the final step in creating new account of VRChat.

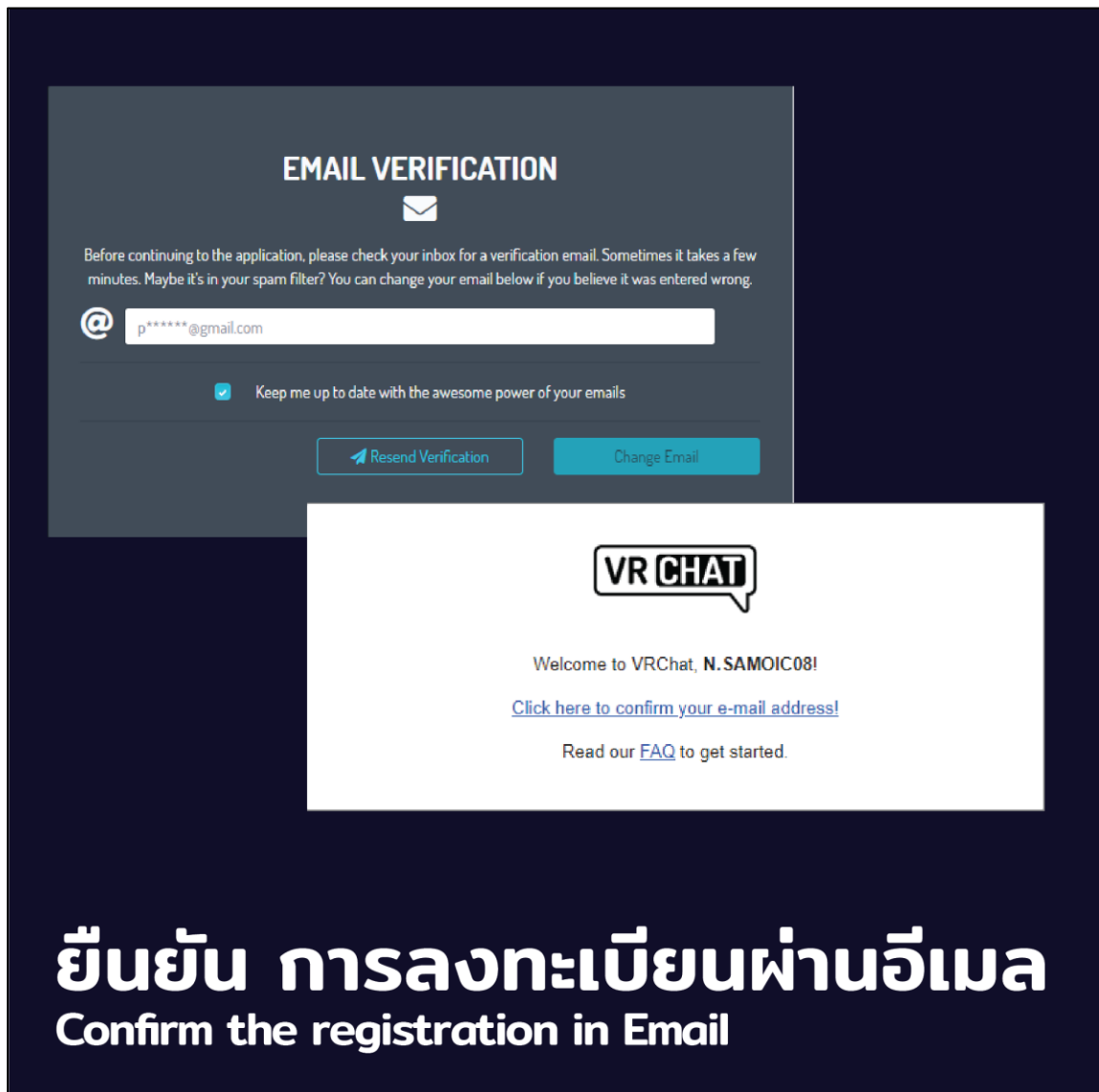


Figure 70 New Account Registration Confirmation

The last step before getting into the virtual world of VRChat is the step of registration confirmation. After clicking the link of Create Account from the previous step, the message for confirmation will be sent to the registrar e-mail. The students need to provide the e-mail needed to be sent the message of confirmation in the blank provided shown in Figure 70. The registration can be finally verified by clicking the link of “Click here to confirm your e-mail address!”, and the account now is ready.



Figure 71 Logging VRChat

Students can explore and enjoy virtual learning platform in VRChat program by logging into the program either with VRChat or Steam links shown in Figure 71. By clicking the link, another box will be shown, and ask for filling the username before clicking OK for confirmation.



Figure 72 VRChat First Room

After logging into the program, the students will be imported their avatar to the first room in VRChat (Figure 72) which students can learn how to control their avatars. This first room is not the room designed specifically for this study, but the room which is prepared by the VRChat program itself.

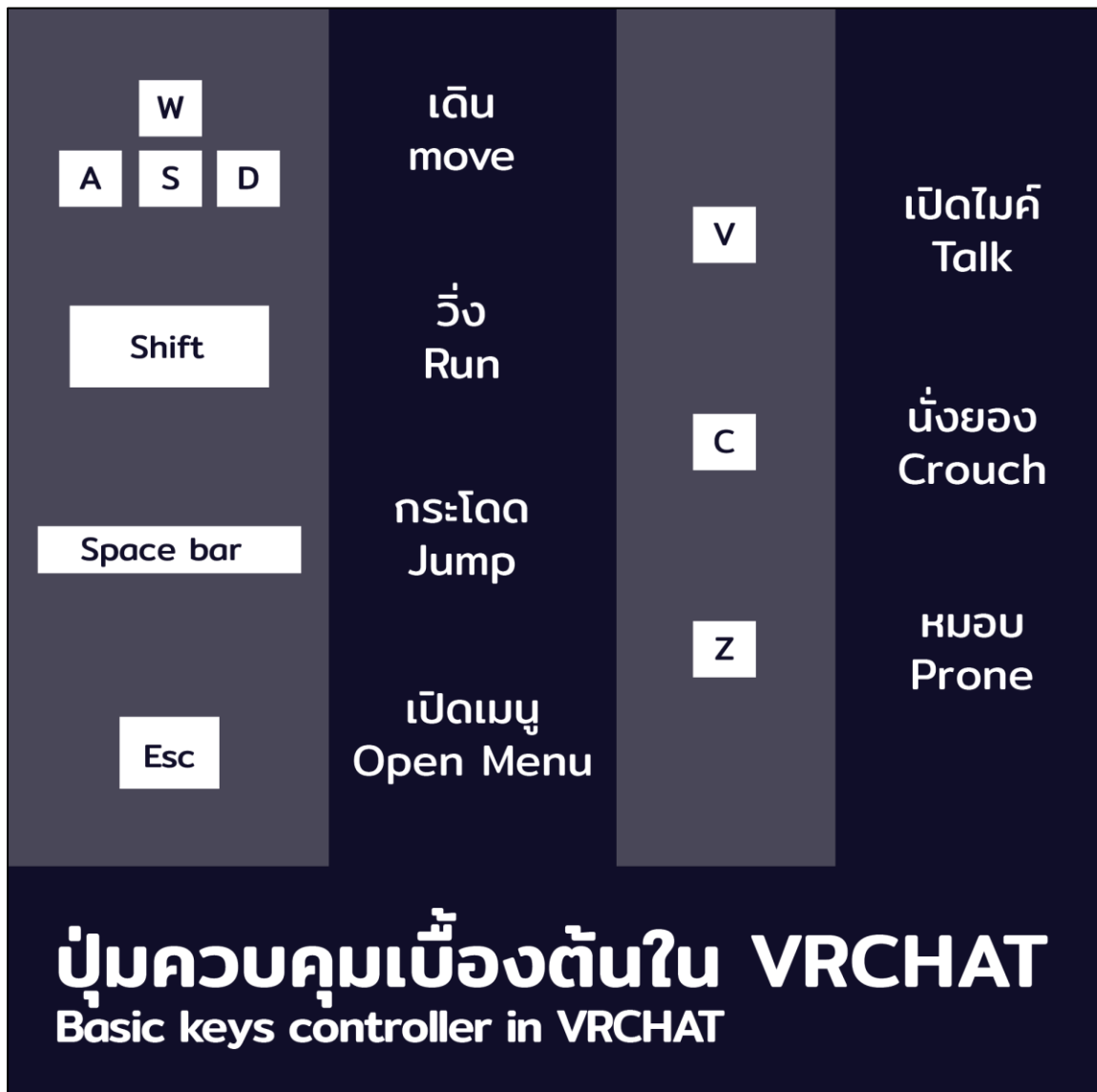


Figure 73 VRChat Basic Keys

The basic keys controller in VRChat shown in Figure 73 portrays that there are seven basic skills key controllers that the students need to know and understand such as moving, running, jumping, opening menu, talking, crouching, and being prone. To illustrate, “w” is for moving forward, “s” is stop, “A” is moving to the left, and “D” is moving to the right. “Shift” bar is for running, “Space” bar is for jumping, and “Esc” bar is for opening any menu. If talking is needed, using the “V” bar is the choice, “C” bar for crouching, and the “Z” bar for being prone.



Figure 74 Additional Skill Bars in VRChat

There are different additional skill bars for the students to enjoy the virtual world of VRChat. The “Worlds” bar is for searching the room, the “Avatar” bar is for them to change their avatar appearance, the “Social” bar is for searching friends in the room for chat, and “Safety” bar is the bar to control and set the safety system like the information and the password. The “Go home” bar is used for going back to the main page of the program, while the “Respawn” bar is needed if the students need to re-server while they feel the server is slow. The “UI Elements” is the bar for the users to see over all control 162 bar in the system. The “Camera” bar is for setting the user vision which they can set whether they need to see their own avatar or only seeing the environment through their eyes. The “Emote” bar can help students to show their body actions to other avatars in the room while the “Emoji” bar can be used for typing the text symbolizing their emotions. If they want to get back to set anything in the VRChat, clicking the bar of “Settings” will help.

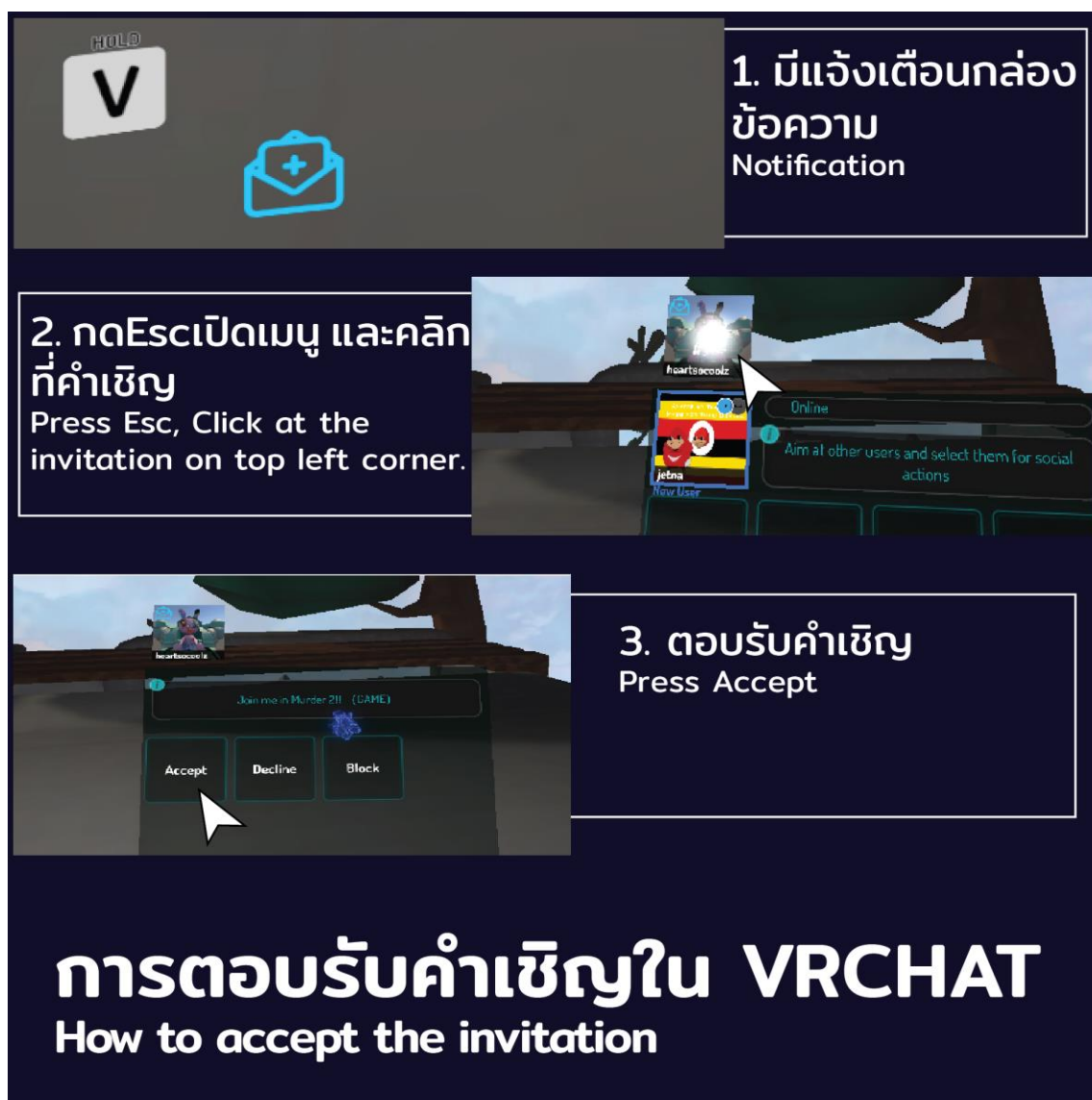


Figure 75 Getting into the Room Created

After logging into the VRChat first room, the students can click the “Worlds” bar to find the created room. In this case, students can find the room “PSUIC” to get into the virtual learning platform prepared by the teacher. However, Figure 66 shows another way to get into the “PSUIC” room as the students will be sent the invitation to join the room to their notification. They can just press “Esc” bar and click the invitation on the top left corner. After press “Accept”, the student avatar will be brought to “PSUIC” room.

3. Samples of VRChat Classes



Figure 76 Front Door of PSUC VRChat Room

Figure 76 shows the front door of PSUC room in the VRChat designed for teaching and learning in this study. When the the students' avatars are imported to this room, they will see the room which are simalated the real learning rooms at the college. The environment and its decoration are similarly to the real environment at the college.

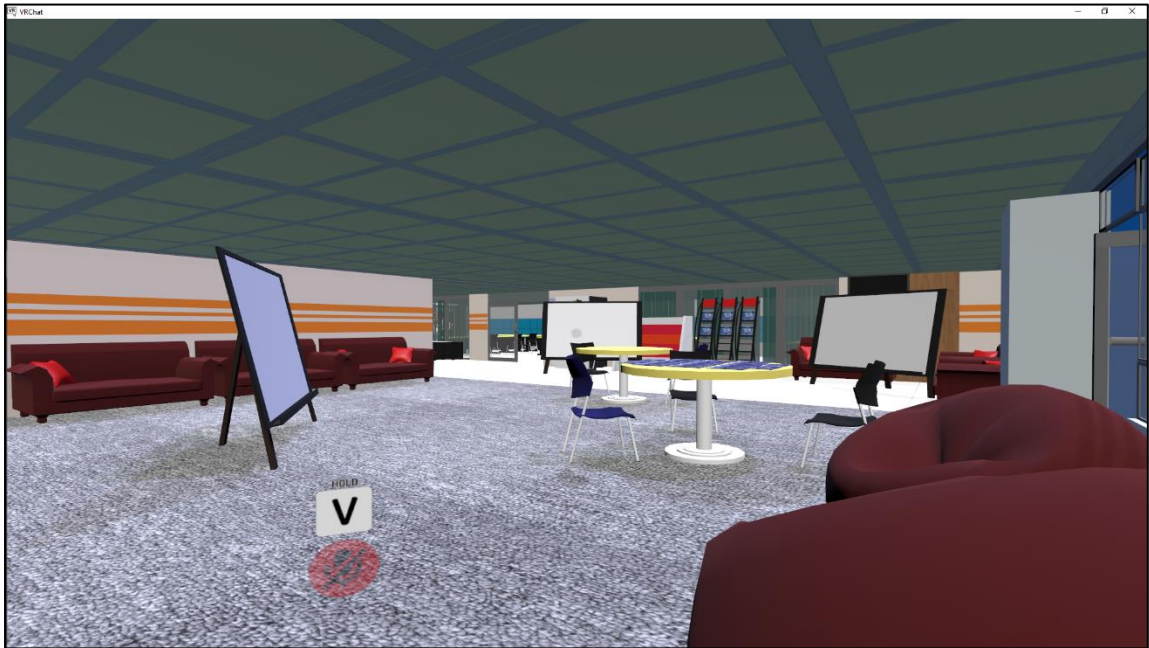


Figure 77 Learning Area of PSUIC VRChat Room

As you can see that the learning area in this room is designed for learning and having activities online. There are some sofa, tables, and chairs for activities and discussion (Figure 77). The boards are also created for attaching the clips or videos needed for learning as the learning boards.



Figure 78 Waiting Area

Another area for waiting is designed and created into this virtual learning platform. This space is for the students sometimes taking a rest while learning online. They can move their avatars and sit here if they need, or they can have discussion with their friends here (Figure 78).

The sample classrooms created in the VRChat for teaching and learning in this study can be seen in the following Figures

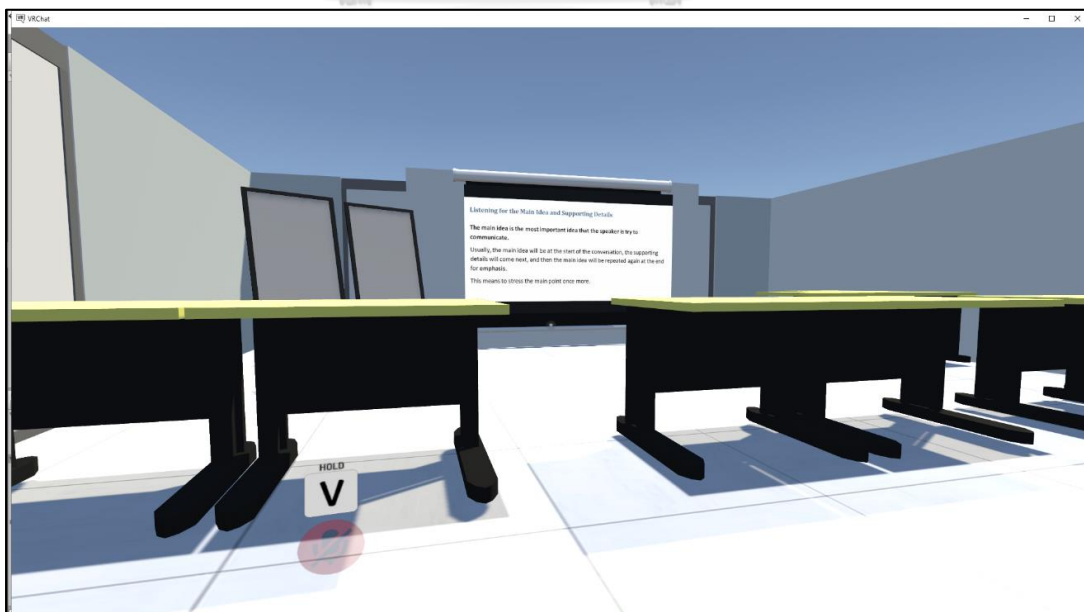


Figure 79 Sample classroom 1

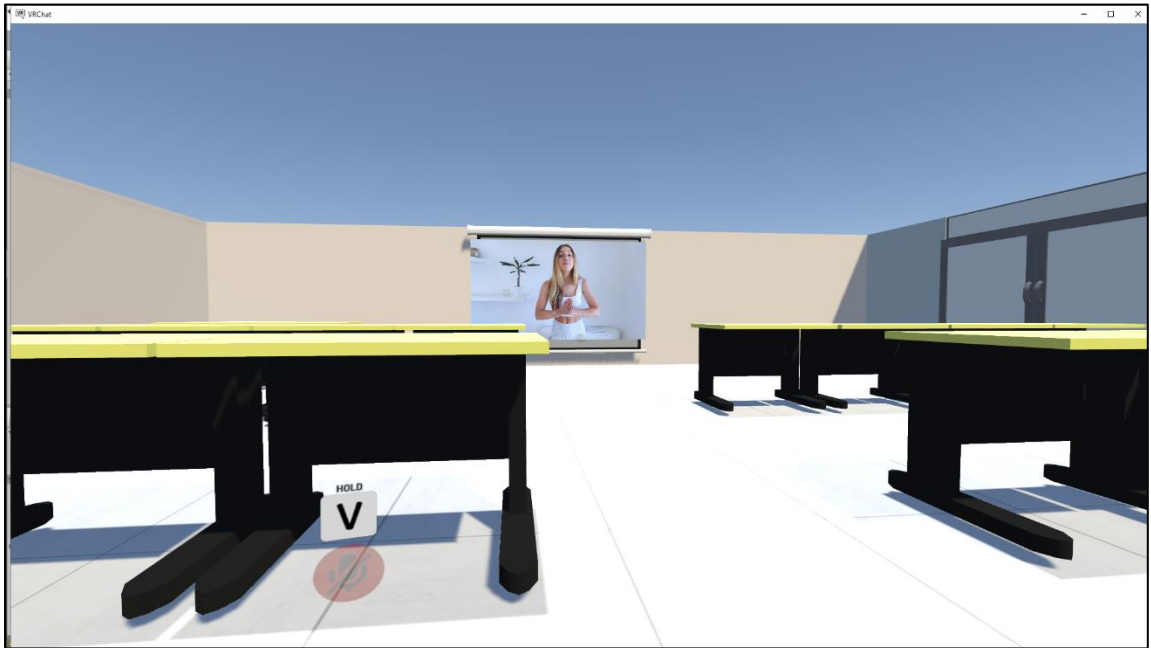


Figure 80 Sample classroom 2

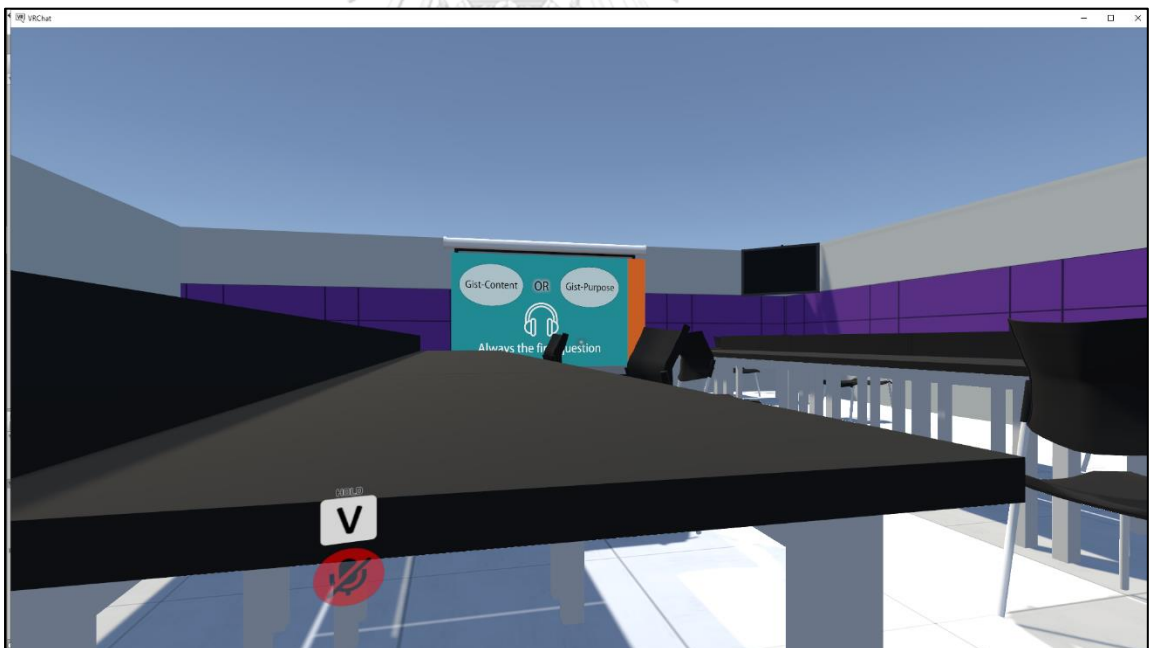


Figure 81 Sample classroom 3

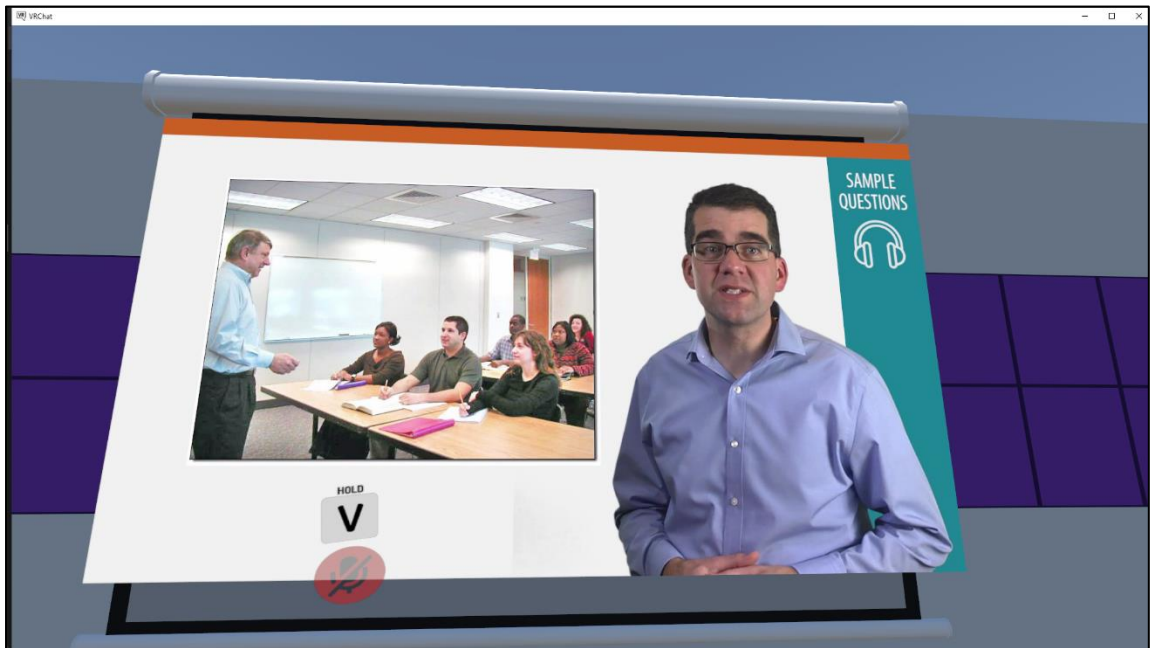


Figure 82 Sample classroom 4



Figure 83 Sample classroom 5

The following figures are the samples of activities happened in the classroom conducted via the VRChat program created for teaching and learning in this study. The avatars of the students shown in Figure 84 are dominated by their username appeared over the head of the avatars. Students can use any name they need by acknowledging the teacher before the class.



Figure 84 Sample Activity 1 in PSUIC Chat Room



Figure 85 Sample Activity 2 in PSUIC Chat Room



Figure 86 Sample Activity 3 in PSUIC Chat Room



Figure 87 Sample Activity 4 in PSUIC Chat Room



Figure 88 Sample Activity 5 in PSUIC Chat Room



Figure 89 Sample Activity 6 in PSUIC Chat Room

ClassStart

As one of the main platforms applied in the prototype of teaching and learning in this study, the Classtart program can be implemented in teaching the class by both educators and students as all registered members can play both roles as educators and learners. The program is, therefore, divided the roles of the registered members into a member, an educator, and a learner. The procedures of joining and applying the program can be summarized as follows:

1. Logging into or register as a new member of the Classtart

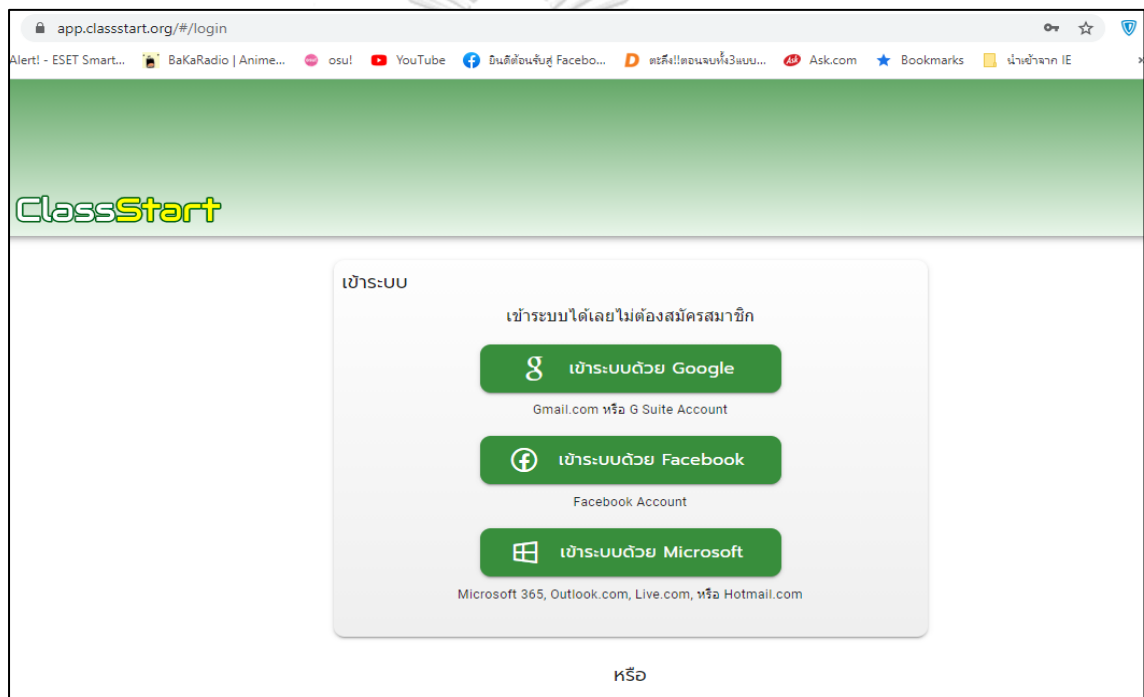


Figure 90 How to log into the Classtart program

After getting into the website of www.classstart.org, you will be shown the page as in Figure 90. You can choose the most familiar channels from the main three access systems, Google, Facebook, or Microsoft. However, if you are at the fresh start, and you have never registered as a member of the Classtart program, you can move the page to the following section show in Figure 90.

You can register as a new member of the program by clicking the button of applying for a member (สมัครสมาชิก) before the page is getting you to the next section shown in Figure 91

Figure 91 How to register a new member of the Classtart

Figure 92 How to register a new member of the Classtart

The information needed to be filled in the following section are the e-mail address (อีเมล) which is not duplicated with the e-mail you have registered earlier (in case you have been registered as a member of the Classtart), typing the same e-mail for confirmation (ยืนยันอีเมลอีกครั้ง), password (พาสเวิร์ด), typing the same password for confirmation (ยืนยันพาสเวิร์ดอีกครั้ง), choosing schools, colleges, or universities (สถานศึกษา) which are provided, and typing the name of the schools, colleges, or universities (สถานศึกษาอื่นๆ) in case they are not provided.

app.classtart.org/#/register

สมัครสมาชิก

คำนำหน้าชื่อ

ชื่อ *

กรุณาใส่เฉพาะชื่อ ไม่ต้องใส่คำนำหน้าชื่อ ตำแหน่ง หรือยศ (ใช้ภาษาไทย)

นามสกุล *

ชื่อเล่น

เพศ

Figure 93 How to register a new member of the Classtart

The next following information needed to be filled are the title (คำนำหน้าชื่อ), name (ชื่อ), surname (นามสกุล), nick name (ชื่อเล่น), and genders (เพศ).

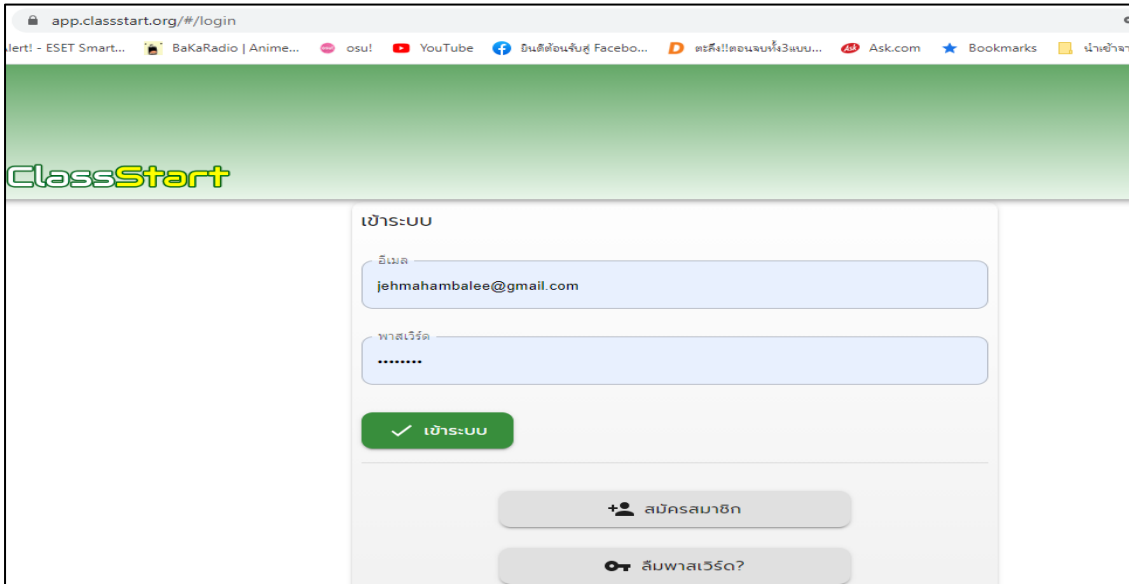
The screenshot shows the registration page for ClassStart. At the top, there is a header in Thai: "ถ้าสถานศึกษาของคุณไม่ได้อยู่ในรายการด้านบน ให้ใส่ชื่อเต็มของสถานศึกษาในช่องนี้ อย่าใช้ชื่อย่อ". Below this are three input fields:

- The first field is labeled "หมายเลขประจำตัว" (Identification Number) with the subtext "ใส่รหัสนักศึกษาหรือรหัสนักเรียน หากเป็นผู้เรียน" (Enter student or student ID if you are a student).
- The second field is labeled "เบอร์โทรศัพท์มือถือ" (Mobile Number) with the subtext "เบอร์โทรศัพท์มือถือของคุณจะแสดงกับผู้สอนในวิชาที่คุณเรียนเท่านั้น" (Your mobile number will only be visible to teachers in the subjects you study).
- The third field is labeled "ที่อยู่" (Address) with the subtext "ที่อยู่ของคุณจะแสดงกับผู้สอนในวิชาที่คุณเรียนเท่านั้น" (Your address will only be visible to teachers in the subjects you study).

 At the bottom of the form is a green button with a checkmark and the text "เก็บข้อมูล" (Save Information). Below the button, a small note reads: "เมื่อคลิกปุ่มด้านบนนี้ ข้าพเจ้ายอมรับข้อกำหนดและเงื่อนไขการใช้งานของ ClassStart" (By clicking this button, I accept the terms and conditions of ClassStart).

Figure 94 How to register a new member of the Classtart

The last information needed to be filled in the procedure of registration as a new member is the identification number, if possible (หมายเลขประจำตัว), mobile number (เบอร์โทรศัพท์มือถือ), and address (ที่อยู่). You are then click on the button of saving the information filled (เก็บข้อมูล).

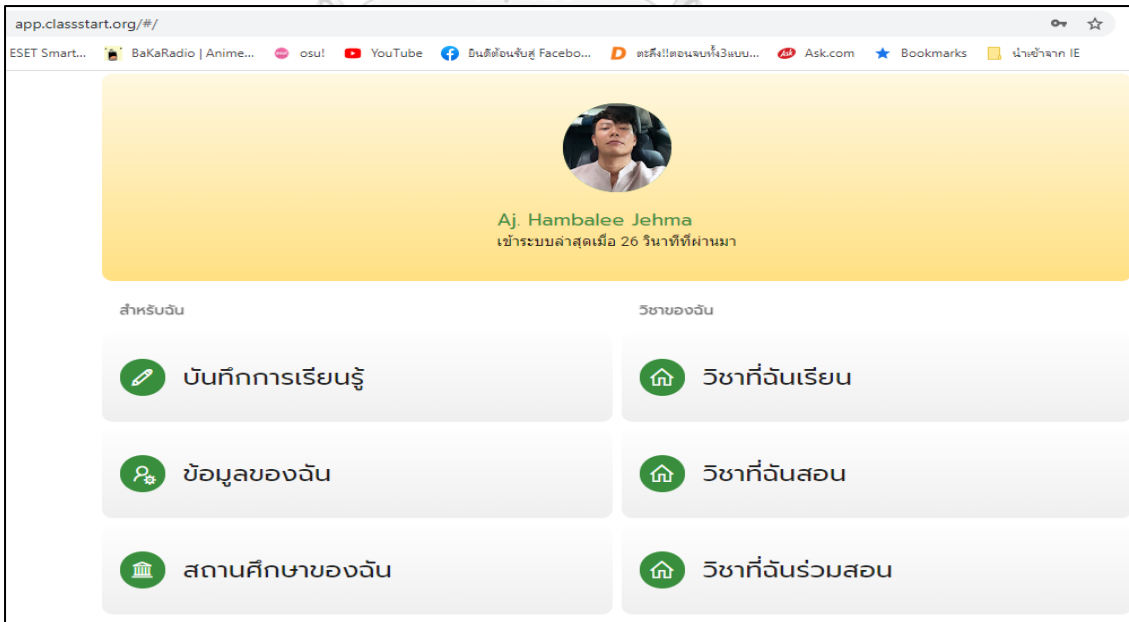


The screenshot shows the login page of the Classstart application. The browser address bar displays 'app.classstart.org/#/login'. The page features the Classstart logo at the top left. The main content area is titled 'เข้าสู่ระบบ' (Login) and contains a registration form with the following fields and buttons:

- อีเมล (Email):** A text input field containing 'jehmahambalee@gmail.com'.
- พาสเวิร์ด (Password):** A password input field with masked characters '.....'.
- เข้าสู่ระบบ (Login):** A green button with a checkmark icon and the text 'เข้าสู่ระบบ'.
- สมัครสมาชิก (Sign Up):** A grey button with a plus icon and the text 'สมัครสมาชิก'.
- ลืมพาสเวิร์ด? (Forgot Password?):** A grey button with a key icon and the text 'ลืมพาสเวิร์ด?'.

Figure 95 How to register a new member of the Classtart

After all the information filled is saved, you can log into the system by adding your e-mail and the password registered in the first section and click log into (เข้าสู่ระบบ) button as shown in Figure 86 and the system will be automatically shown the main page as shown in Figure 96.



The screenshot shows the main page of the Classstart application. The browser address bar displays 'app.classstart.org/#/'. The page features a user profile section at the top with a circular profile picture of a man and the text 'Aj. Hambalee Jehma' and 'เข้าระบบล่าสุดเมื่อ 26 วินาทีที่ผ่านมา'. Below the profile section is a navigation menu with two columns of buttons:

- สำหรับฉัน (For Me):**
 - บันทึกการเรียนรู้ (Record Learning)
 - ข้อมูลของฉัน (My Information)
 - สถานศึกษาของฉัน (My Institution)
- วิชาของฉัน (My Courses):**
 - วิชาที่ฉันเรียน (Courses I am taking)
 - วิชาที่ฉันสอน (Courses I teach)
 - วิชาที่ฉันร่วมสอน (Courses I co-teach)

Figure 96 Main page of the Classtart

2. Changing the information and/or pictures in the Classtart

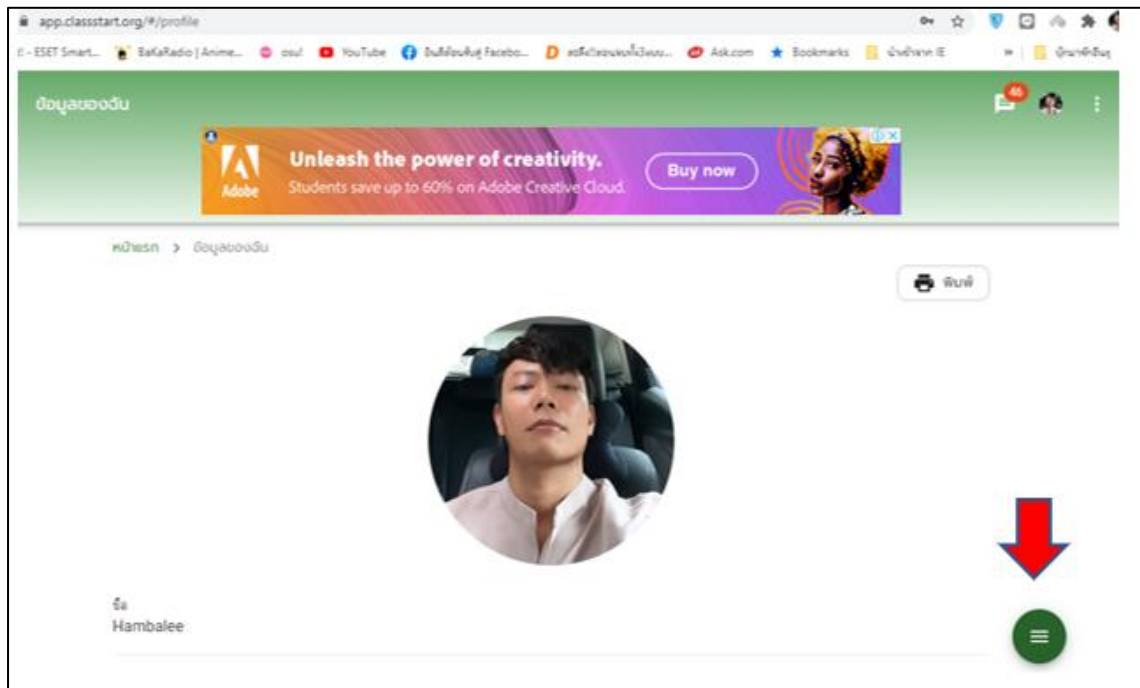


Figure 97 How to change the information in the Classtart 1

To start with how to change your information, you can only click at the green button appeared on the right of the page shown in Figure 97, and the page will bring you automatically to another page shown in Figure 98. The three options will be shown whether you needs to change your bio data by clicking the top of the button of editing your information (แก้ไขข้อมูลของฉัน), the middle button of changing your password (เปลี่ยนพาสเวิร์ด), and the bottom one of changing your profile picture (แก้ไขรูปถ่ายประจำตัว). Three changing information options can be made after having done registration as a member.

แก้ไขข้อมูลของฉัน

คำนำหน้าชื่อ
Aj.

ชื่อ *
Hambalee

นามสกุล *
Jehma

ชื่อเล่น

อีเมล *
jehmahambalee@gmail.com

Figure 98 How to change the information in the Classtart 2

ข้อมูลของฉัน

แก้ไขข้อมูลของฉัน

เปลี่ยนพาสเวิร์ด

แก้ไขรูปถ่ายประจำตัว

ชื่อ
Hambalee

นามสกุล
Jehma

อีเมล

Figure 99 How to change the information in the Classtart 3

After clicking the top button of changing your bio data, the next page will appear shown in Figure 99 so that you can change your title (คำนำหน้าชื่อ), name (ชื่อ), surname (นามสกุล), and your nickname (ชื่อเล่น), e-mail (อีเมล), and password (รหัสผ่าน).

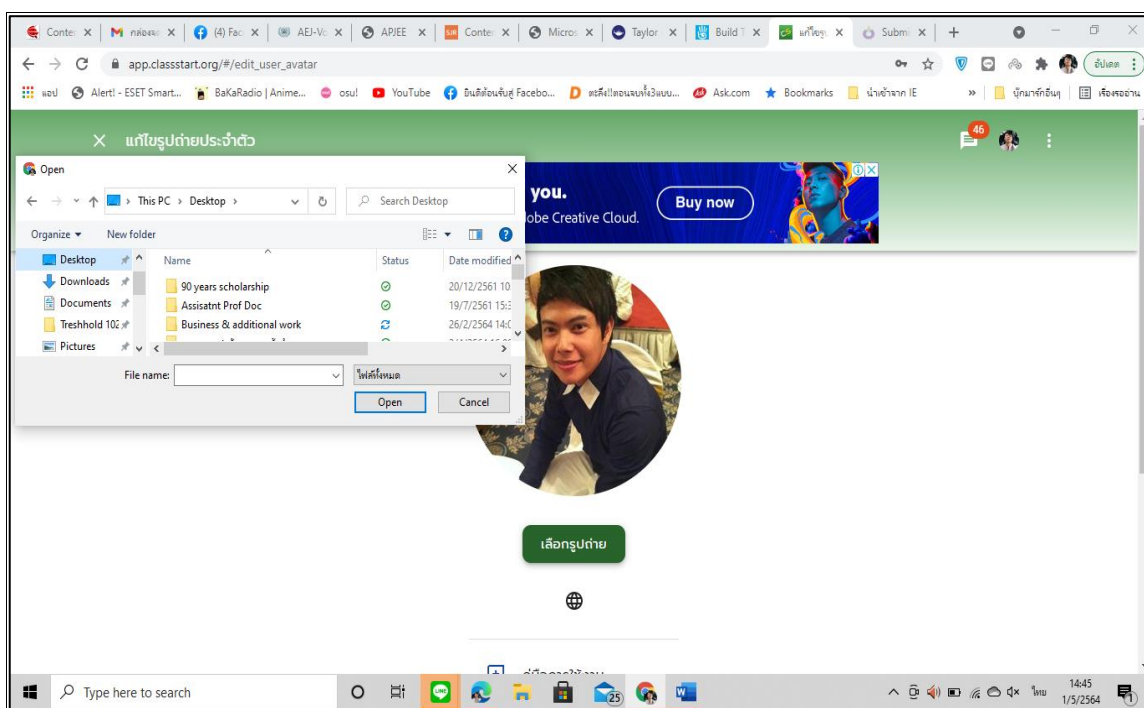


Figure 100 How to change the information in the Classstart 4

To change your profile picture, you can easily click the button of changing your profile picture (แก้ไขรูปถ่ายประจำตัว) mentioned earlier. After the button is clicked, you will be brought to the page shown in Figure 100. The button of choosing the picture (เลือกรูปถ่าย) is shown and after clicking the sources of the pictures appear on the screen for you to choose. After following the instructions of changing your information, the last step needed is to click the button of saving the change (จัดเก็บ). So that the change made is complete.

3. Creating classes in the Classtart

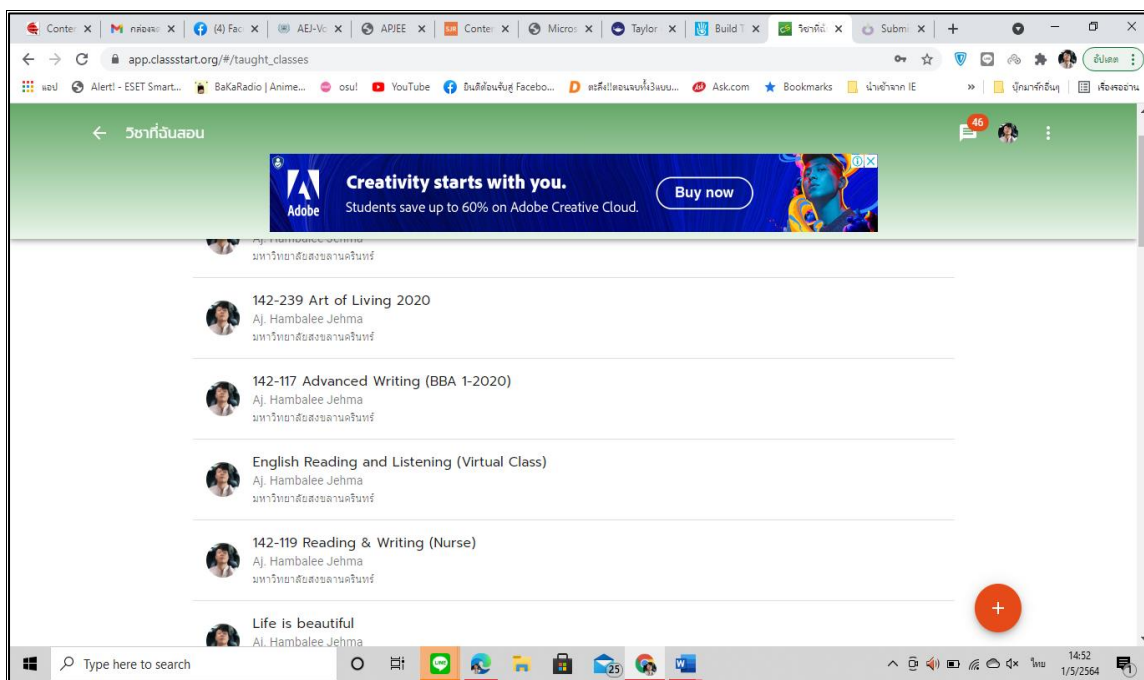


Figure 101 How to create classes 1.

Another important feature of the platform is the feature that allows educator create classes for teaching and learning. This feature is as if the classroom management which allows educator import or upload all the materials for the class which the students can easily get into all the materials uploaded only by clicking and getting into this feature. Figure 101 shows that there are many classes created by educators at the same time which students from the same or different groups can join the class they like with the permission of the educators who are the creator of the classes. The name of each class will appear in bold letters. The name of the educators who have created the classes are shown at the lower line of the class name, followed by the name of the university or colleges of the creators affiliated.

สร้างวิชาใหม่

ชื่อวิชา *

รหัสวิชาของสถานศึกษา

รหัสวิชาตามตารางที่กำหนดโดยสถานศึกษาหรือหน่วยงานสังกัด

ประเภทสถานศึกษา

ประถม-มัธยม

เลือกประเภทสถานศึกษา

จังหวัด

กรุงเทพมหานคร

เลือกจังหวัดของสถานศึกษา

Figure 102 How to create classes 2.

ชื่อ

เลือกสถานศึกษา

สถานศึกษา (อื่น ๆ)

ถ้าสถานศึกษาของคุณไม่ได้อยู่ในรายการด้านบน โปรดใส่ชื่อเต็มของสถานศึกษาในช่องนี้ อย่าใช้ชื่อย่อ

เขียน

พรีวิว

คำอธิบายวิชา/รายวิชา *

ช่องนี้สามารถเขียนแบบ Markdown ได้

538กรเขียนแบบ Markdown

สร้าง

Figure 103 How to create classes 3.

After clicking the red button on the right of the page shown in Figure 100 earlier, the creating new classes is shown (Figure 101). The six required blanks to be filled shown are about the name of the subject or the class (ชื่อวิชา), the code of the subject (รหัสวิชาของสถานศึกษา), the educational levels of institutions (ประเภทสถานศึกษา) - primary, secondary, or high schools (ประถมศึกษา หรือ มัธยมศึกษา), or higher education (สถาบันอุดมศึกษา), and the province of the institution (จังหวัด) shown in Figure 102. Another blanks shown in Figure 103 are needed to be filled. They are the name of the institutions (สถานศึกษา), and the description of the subject or the class (คำอธิบายวิชา/รายวิชา). After all the blanks are filled, clicking the green button of creating (สร้าง) on the left is the last step for creating the new class.

4. Creating the class materials and exercises in the Classtart

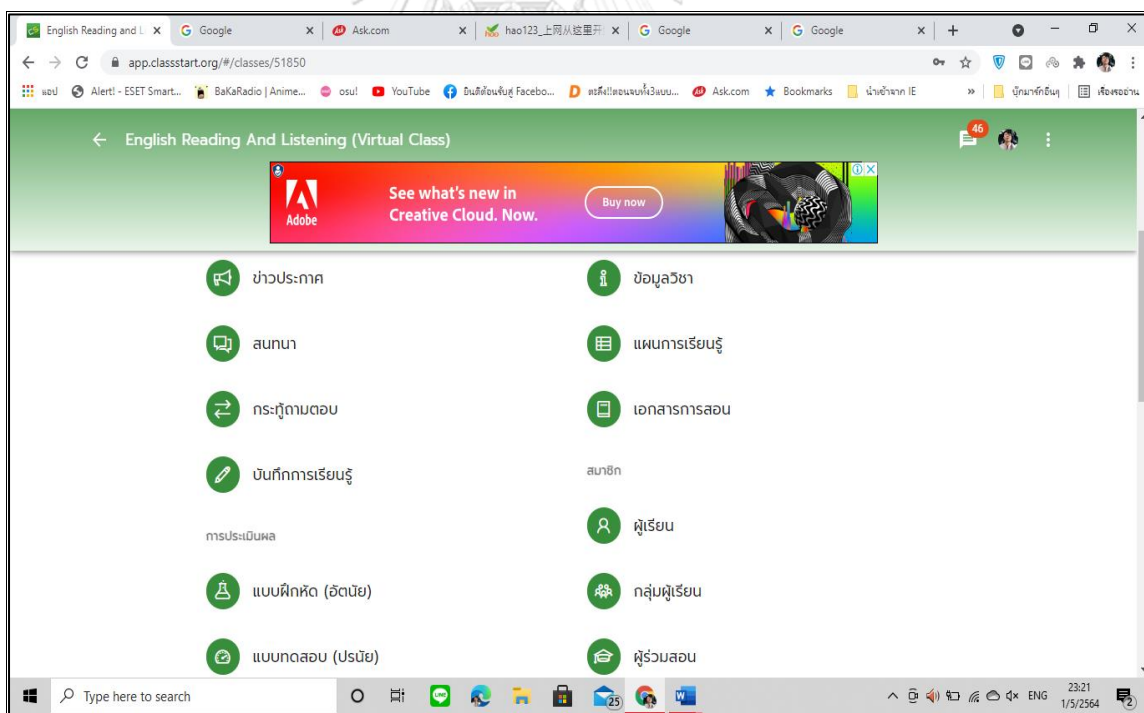


Figure 104 How to create class materials 1.

To create the class materials, the educator can directly click the button of subjects I teach (วิชาที่ฉันสอน). The page will directly shows the name of the classes created. By clicking the selected class, another page will be shown (Figure 104), and you can click on the button of materials (เอกสารการสอน).

Figure 105 How to create class materials 2.

The first step in creating the materials is to fill the name or the title of the material (หัวข้อ), followed by lower down blank to be filled with the summarized content of the material (เนื้อหา) be for clicking on the green button of creating appeared on the left bottom of the page shown in Figure 104. After the earlier blanks are saved, another page is shown (Figure 105). The first blank needed to be filled is regarding the name or the title of the material to be attached (หัวข้อ). The lower blank is content (เนื้อหา). After filling the earlier two blanks, the needed file of the materials can be attached by by clicking the button of adding attached file (เพิ่มไฟล์แนบ) on the left of the page. The procedure of creating or attaching class materials are finished.

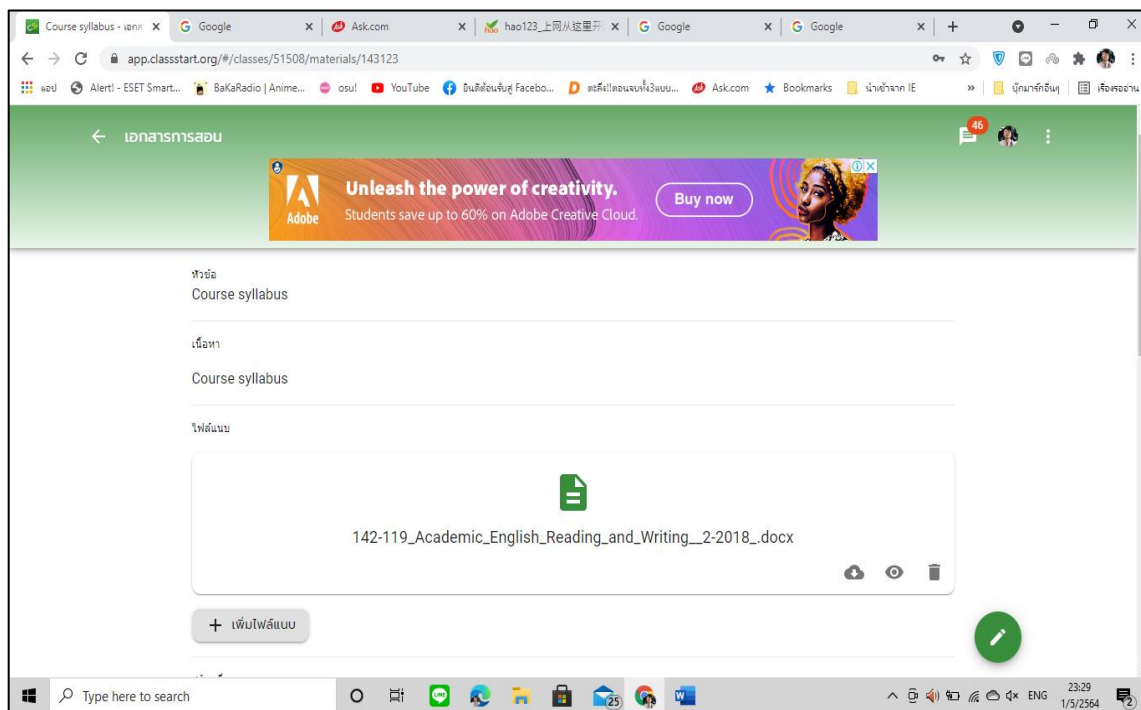


Figure 106 How to create class materials 3.

To create the class materials, the educator can directly click the button of subjects I teach (วิชาที่ฉันสอน). The page will directly shows the name of the classes created. By clicking the selected class, another page will be shown (Figure 106), and you can click on the button of materials (เอกสารการสอน).

5. Creating exercises in the Classtart

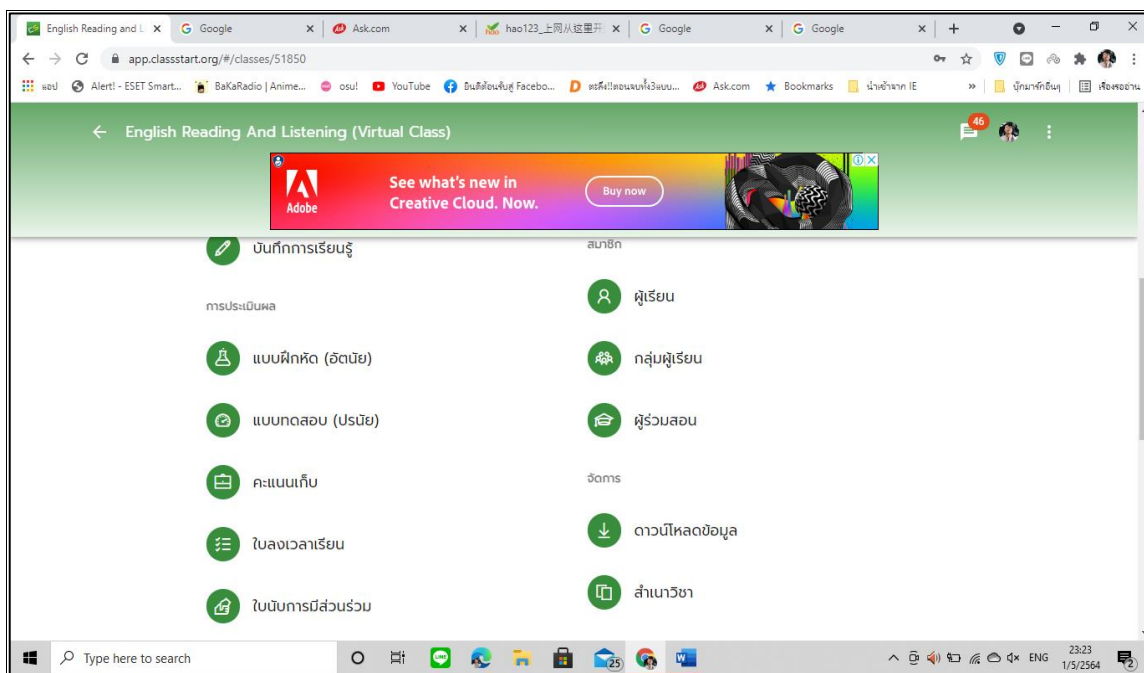


Figure 107 How to create exercise for the students in the Classtart 1.

To create the exercises for the students, the educator can directly click the button of subjects I teach (วิชาที่ฉันสอน). The page will directly shows the name of the classes created. By clicking the selected class, another page will be shown (Figure 107), and you can click on the button of exercises (แบบฝึกหัด). You will be directly brought to another page shown Figure 108.

The screenshot shows a web browser window with the URL `app.classtart.org/#/classes/51508/assignments/new`. The page contains a form for creating a new assignment. The form has the following fields and elements:

- A text input field for the title, labeled "หัวข้อ *".
- A text input field for the question or instructions, labeled "โจทย์ *".
- A text input field for the total score, labeled "คะแนนเต็ม *", with the value "0" entered.
- A date and time input field for the start time, labeled "วันที่เริ่มต้น", with the value "2 พฤษภาคม 2021 23:42" entered.
- Buttons for "บันทึก" (Save) and "ยกเลิก" (Cancel).
- Text indicating the input type: "ช่องนี้สามารถเขียนแบบ Markdown ได้" and "วิธีการเขียนแบบ Markdown".

Figure 108 How to create exercise for the students in the Classtart 2.

There are three blanks need to be filled the information for creating the exercise. The topic or the name (หัวข้อ) of the exercise is firstly needed to be filled. The following blank section is the questions (โจทย์) or the instructions you need to inform your students. The last one is the full scores (คะแนน) of the exercise. After the blanks mentioned are filled, there is another important information needed to be chosen. The educators need to set the date and the specific time allowed the students to start (วันที่เริ่มต้น) the exercise and its ending or the deadline (วันกำหนดส่ง) shown in Figure 109.

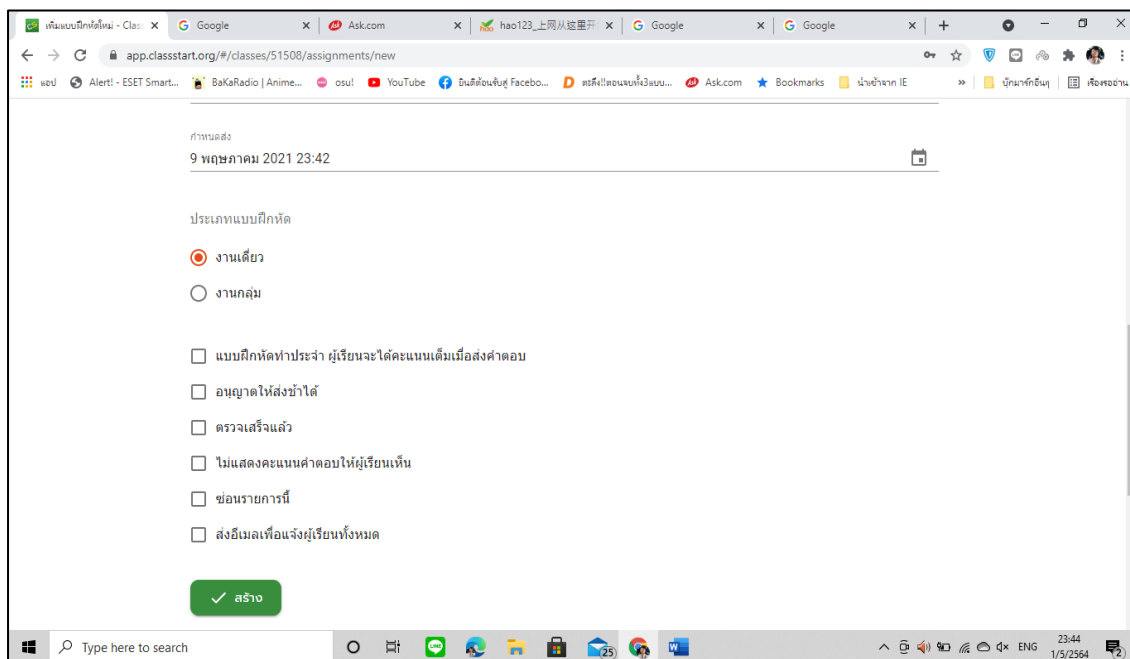


Figure 109 How to create exercise for the students in the Classtart 3.

The next following option needed to be set is the type of the exercise (ประเภทแบบฝึกหัด). You can choose either individual work (งานเดี่ยว) or group work (งานกลุ่ม). You can also choose the optional exercise submission categories namely general work which the students will be automatically fully scored (แบบฝึกหัดประจำ ผู้เรียนจะได้คะแนนเต็มเมื่อส่งคำตอบ), allowing students to submit the work late (อนุญาตให้ส่งช้าได้), checked work (ตรวจสอบเสร็จแล้ว), never show the scores to the students (ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น), hide this work (ซ่อนรายการนี้), and sending e-mail to all students (ส่งอีเมลเพื่อแจ้งผู้เรียนทั้งหมด), and click the last button of creating (สร้าง) to confirm the information filled. The samples of assignments or exercises will be shown in this section of exercises page (Figure 110). If the exercise is expired or meet the deadline, the students cannot submit the answer, and the blue symbols of missing the deadline (เลยกำหนด) will appear automatically under the topic of the exercise.

6. Checking the student exercises in the Classtart

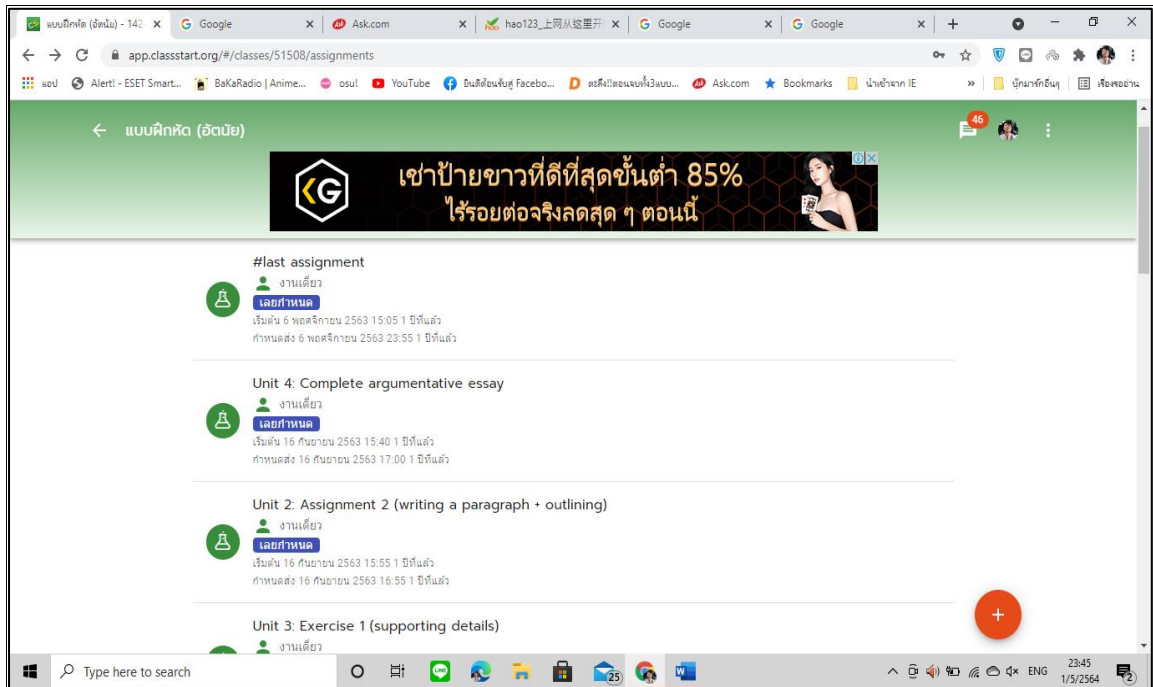


Figure 110 How to create exercise for the students in the Classtart 4.

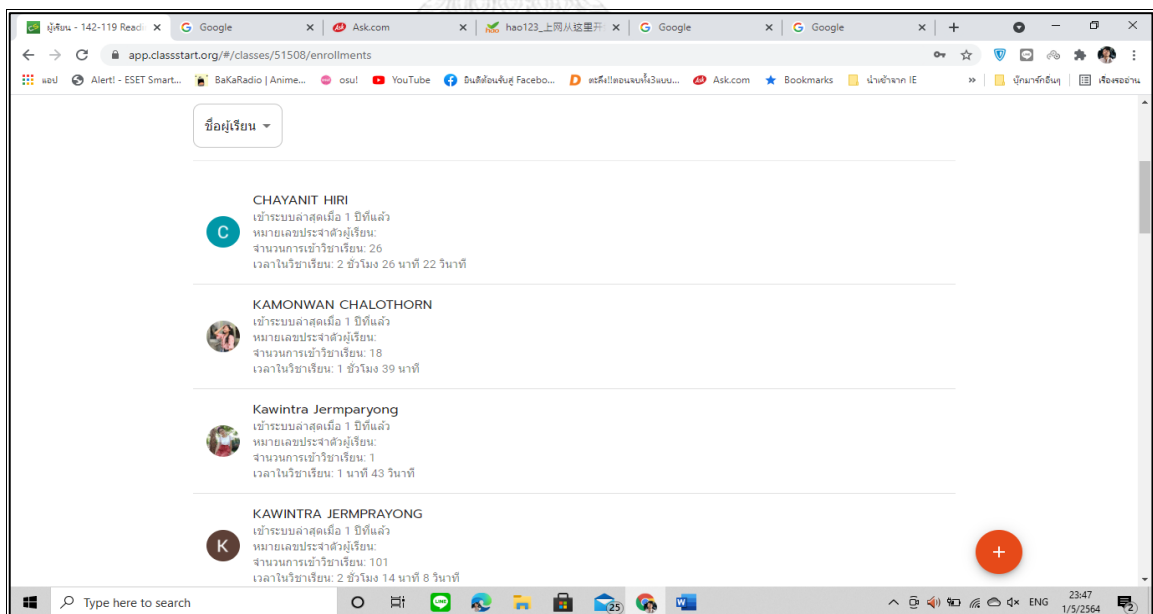


Figure 111 How to check the student exercises in the Classtart.

After creating the exercises and assigning them to finish the exercise mentioned earlier, the educators can check the student performance or development through each exercise by clicking the button of the class needed to be scored. The educators will be brought automatically to another page shown in Figure 111 which you can see the name lists of the students who have participated and joined the class. When you click the student's name, the student's work will be shown and you can check the work, give them comments, and give them the scores. The comments and the scores will be shown in the student's page which they can learn about the comments and the scores given.

7. Creating a reflection of learning section in the Classtart

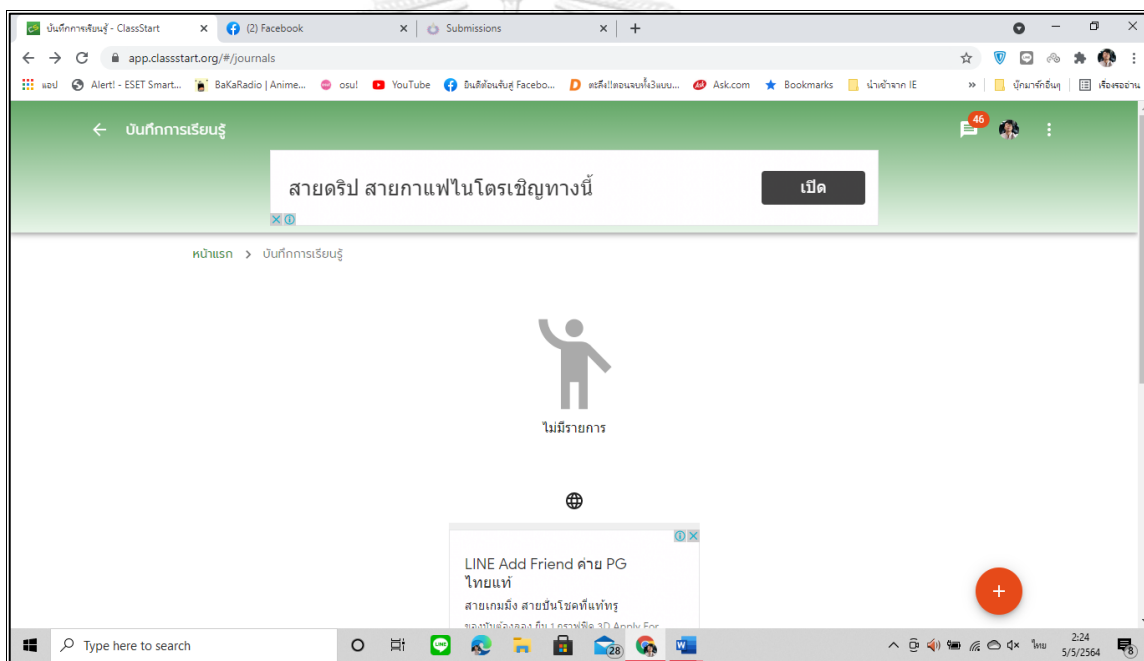


Figure 112 How to create a reflection of learning in the Classtart 1.

To create a reflection of learning for the students, the educator can directly click the button of learning reflection (บันทึกการเรียนรู้). The page will directly shows the blank page which you can click the red button on the right for the next procedure (Figure 112). By clicking the selected button, another page will be shown (Figure 113), and you will be then needed to fill the content or the instruction of the reflection in the blank (เนื้อหา) shown in Figure 113. Before completing the procedure, the options of the subjects you need the students to reflect their learning are shown in the button

of personal reflection (บันทึกส่วนตัว) and clicking the button of saving data (เก็บข้อมูล) is the last step to complete the procedure.

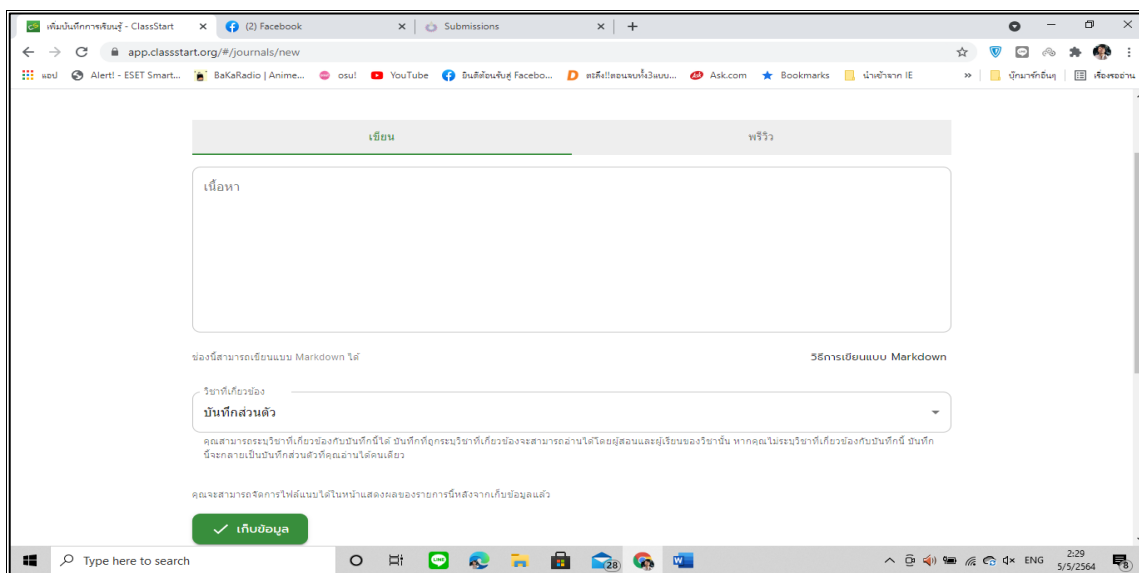


Figure 113 How to create a reflection of learning in the Classtart 2.

The sample of the reflection of learning completed by the student shown in Figure 114.

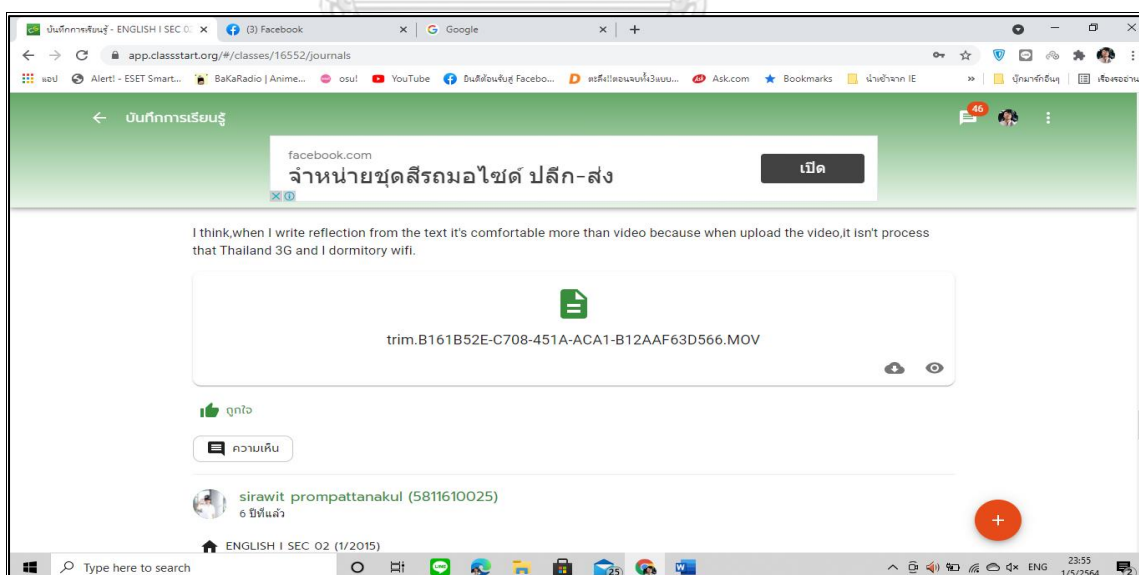


Figure 114 How to create a reflection of learning in the Classtart

System Prototype

2D3A

SYSTEM PROTOTYPE

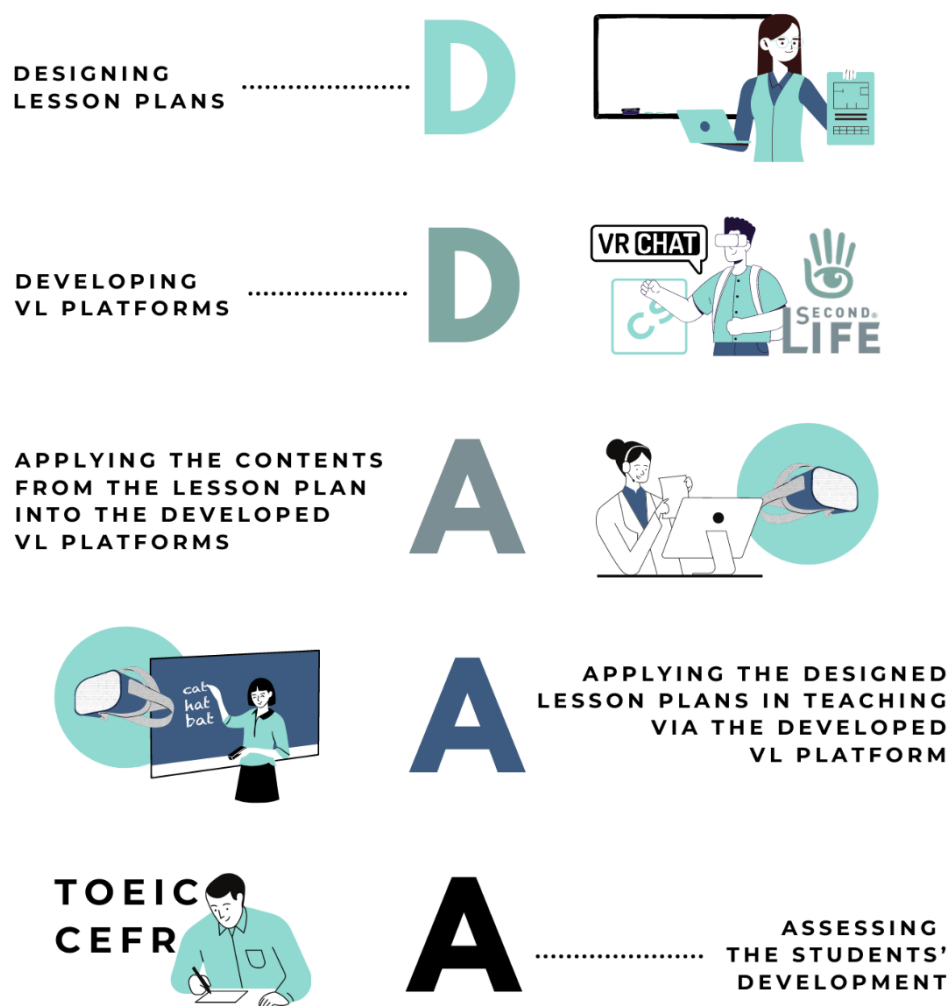


Figure 115 2D3A System Prototype

The **2D3A System Prototype** in Figure 115 can be explained as follows:

There are five main steps included in the system prototype derived from its name.

D: Designing lesson plans is the first step in developing the system prototype. English educators are required to prepare 10 lesson plans for the prototype which are inclusive of the virtual tasks and the specific virtual platforms.

D: Developing VL platforms is the second step after having the lesson plans done. educators or developers need to develop the virtual platforms namely the Second Life, VRChat and the ClassStart in different ways.

A: Applying the contents from the lesson plans is another step the educators or developers need to apply the contents from the designed lesson plan such as videos, clips, virtual tasks into different developed virtual platforms.

A: Applying all the designed lesson plans in teaching and learning virtually through the developed virtual platforms, the Second Life, VRChat, and the ClassStart.

A: Assessing the students' development is the last step in the system prototype. After having teaching and learning following the lesson plans through the virtual platforms, the students can be assessed if there is any development of the target skills confirmed by the standardized test, TOEIC portraying their skill levels following the CEFR rubrics.

Implementation

To implement this system prototype, there are some issues needed to be concerned. As an individual educator especially language educator, applying all the procedure in the system prototype might be limited if the educator is not fully skilled in some programming as it is needed in the step of developing the virtual platform of the VRChat which the Unity program knowledge is needed. However, other virtual platforms such as the Second Life and the ClassStart are more friendly to the users as they are ready platforms which are not required the programming knowledge. The educators are advised to consult programmers or developers supported by the

university in case the educators needed to apply all the procedure offered by this system prototype.

Needed Infrastructures, Facilities and Conditions

The most needed facility in applying the system prototype is the computer with the internet connection as it will be online throughout the procedure. If the internet connection is limited or insufficient signal, it might affect the VR component in the platforms of the Second Life and the VRChat. Other simple facilities needed are the microphone together with camera which both learners and educators will apply for communicating virtually. However, the free software like the Unity program is needed to be installed in case either the educators or developers needed to develop specific virtual world or space in either the Second Life or the VRChat. Therefore, the computer with the suitable specification for the installment of the program is concerned. Though the system prototype is such a suggested model that the educators can follow and apply for teaching and learning, the educators themselves need to clearly explain and clarify the details of each step and how to use each virtual platform in detail before starting the class. The students, and teachers, therefore, can walk through all the steps in developing the target skills successfully.

CHAPTER VI

SUMMARY AND CONCLUSION

As there are three main purposes of this study; to explore and analyze the level of English receptive skills of undergraduates studying in Thai higher education institutions, to develop the prototype of virtual learning as implemented in flipped classrooms in improving Thai undergraduates' English receptive skills, and to evaluate the effectiveness of the developed prototype of virtual learning as a tool implemented in flipped classrooms in developing Thai undergraduates' English receptive skills, this chapter concludes a summary, conclusion and recommendations for both application and for future studies.

The contents contained in this chapter mainly discuss to help answer the three research questions:

There are three main research questions according to the problems stated in the previous section:

1. What is the level of English receptive skills of undergraduates' studying in Thai higher education institutions?
2. How to develop the prototype of virtual learning as a tool implemented in flipped classrooms in improving Thai undergraduates' English receptive skills?
3. How effective does the developed prototype of virtual learning implemented in flipped classroom impact on improving Thai undergraduates' English receptive skills?

Summary

The Levels of English Receptive Skills of Undergraduates in Thai Higher Education Institutions

The results from this study show that the total average English TOEIC scores of the students participated in this study was lower than the required scores set by Thai university between 450 and 600 scores for graduation though a great change of

Thai curriculum concerning the English language learning to be started at the upper elementary level was launched in 1960 (Khamkhien, 2010) and Thai government pushed a substantial effort to promote any teaching methodology to improve Thai students' level of English proficiency (Khamkhien, 2006), the failure of this effort were very obvious as mentioned in many studies by Bolton (2008) and Wiriyaichitra (2001). It can be more clearly seen from the average scores collected from the students from eight different universities in Thailand located in different regions, the north, north-east, central, and the south of Thailand which was lower than expected.

In terms of listening skills, the TOEIC listening mean of the scores was 204.41 which the north-east university 2 was ranked the highest at 233.25, and the lowest was the central university 2 at 185.75. Though the north-east university 2 was ranked the highest of the mean scores, the highest listening score was the student from the south university 2, 315 scores, and the lowest from the university from the north 1 and the north-east university 2, 50 scores.

Similarly, the mean of the reading scores was also lower than that of required by the university regulation. The study has shown the results of the reading TOEIC mean scores of the students participated in this study was 138.14 which the north-east university 1 was ranked the highest at 161.25, and the lowest was the south university 2 at 124.75. Though the north-east university 1 was ranked the highest of the mean scores, the highest reading scores were the students from the north-east university 1, and the central university 1, 230 scores, and the lowest from the university from the south 2, 60 scores. In summary, the students participated in this study had poor receptive skills as the TOEIC total mean score of 342.55, the lowest is 165 and the highest is 495 out of 990 which can be considered at the level of Elementary Proficiency (255-400) which and lower than the university requirement of not less than 450 total TOEIC scores). These results were similarly confirmed by Khamkhien (2010) that the scores of two international standardized tests: TOEFL and TOEIC, Thai test takers' scores were significantly low, compared to those of Southeast Asian countries. In other words, the average scores of the Thai students in this study can be considered as the "Basic User" level following The Common European Framework of Reference (CEFR) between A1-A2 levels which the A1 users are considered as the

ones who can understand and use familiar everyday expressions and considerably basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/ she knows and things she/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help while the A2 level users can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g., considerably basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.

These phenomena have been arisen when learning a new language learners tend to develop their receptive skills first and then acquire productive capability. It is a complex relationship between the two as they all play a supporting role with developing other skills. For example, reading skills can be a supporting factor to the development of writing, whereas listening can improve speaking fluency. Developing receptive skills can be particularly challenging especially when communicating with a fluent or native speaker. Although starting a conversation may be done with relative ease, maintaining one poses greater challenges. Most likely learners may not recognize features of connected speech or idiomatic language which may lead to an unsuccessful interaction. As similarly to the reading, if the language or grammar is too complicated, it makes the text unintelligible. The key difference between listening and reading is that when learners listen to information, they have much less support than when they are working with the written word on the page. Listening requires 'real-time' processing of language, and once the message has finished, there is no easy way to go back and check for meaning, as there is during reading (Dana & Tagg, 1996).

This can be confirmed by the negative feedback from the employers which mentioned that the fresh undergraduates are still lack of the communicative skills especially English language communication skills both reading and listening skills. The employers' perspectives on six most important expectation factors they

considered when recurring the graduate ranked as communication skills the first most problematic compared to other knowledge such as general knowledge, personality, computer skills, and practical experience. The employers do not consider professional experience or special knowledge from the graduates as there can be differences of the immediate environments and time commitments to other activities that drive an individual away from gaining the optimal quantity of general knowledge. (Weligamage & Siengthai, 2003). This phenomenon has been being discussed why it repeatedly happened till now. One of the main problems needed to be solved is language teaching time in the classroom is inadequate for the students to master the skills since they are required an outside classroom practice independently (Dickinson, 1995). Even though the language teachers have been struggling in teaching their students to master the skills within a limited time in the class, the students finally do not fully develop their language skills as fully as expected. Another significant factor negatively affected language development while learning in the classroom is the students' engagement. Numerous literatures consistently point to the need to rethink what is taking place in the classroom. Research shows that students' attention declines substantially and steadily after the first 10 minutes of class and that the average attention span of a student is 15 to 20 minutes at the beginning of class (Hartley & Cameron, 1967). Although students' attention returns in the last few minutes of class, they remember only 20% of the material presented during that time (Hartley & Davies, 1978). Furthermore, passive learning in hourlong lectures often bores students and can deprive them of rich educational experiences.16 Students can read and learn information on their own, but they need instructors to act as coaches and mentors to stimulate and challenge their thinking, guide them, and encourage their learning and application of the material (Bishop & Verleger, 2013).

Development of the Prototype of Virtual Learning as a Tool Implemented in Flipped Classrooms in Improving Thai Undergraduates' English Receptive Skills

After getting the results from the first objective of the study which can explain how the English proficiency of the Thai undergraduates' is, the average score has been applied to purposively select the samples and design the prototype for developing students' English receptive skills. In response to the second research question of how to develop the prototype of virtual learning as a tool implemented in flipped classrooms in improving Thai undergraduates' English receptive skills, the prototype and its procedure have been created by applying various important theories.

Flipped Learning Applied in the System Prototype

By flipped instruction, Hung (2014) means a pedagogical approach where learning contents are mainly delivered outside of the classroom, whereas class time is mostly used for activities. It was further explained that flipped learning is a mode of instruction where learning content and homework are provided outside the classroom, while enhanced activities are mainly conducted during class time. The clips or videos are normally prepared by the educators for the students having studies on their own before class or outside of the classroom called. To add more literature concerning this concept of the flipped classroom research studied here, the virtual platforms such as the Second Life which is openly free virtual space that the educators can prepare for the students to study outside of the classroom while having the ClassStart virtual platform as a classroom management program prepared all the instructions students can access easily freely anywhere and anytime before the another virtual closed designed platform like VRChat will be applied in another class session as an inside of the classroom concept of the flipped based learning. This phenomenon makes the interaction more effective and fruitful as students feel more comfortable and confident asking questions and discussing the issues with the teacher and peers as they are living in an immersive virtual world through the avatar simulating and symbolizing their presence instead of communicating face to face. Moreover, students are becoming involved in practical activities in the classroom, but not in monotonous taking notes of the teacher's lecture or explanations of theoretical material.

Consequently, homework becomes different as well. This new term of virtual flipped classroom helps to solve the problem of ignoring assignments within limited time as they are provided an unlimited access to electronic resources. Students work in the e-virtual immersive environment individually or in groups watching video lectures, checking their knowledge by answering comprehension questions or studying additional learning resources. In the inside of the virtual classroom, students expand the material studied mainly by solving practical tasks, making projects, and discussing various important issues on the topic. After the inside of the virtual classroom activities, students continue working with the electronic course where they are engaged in testing their knowledge of the subject and evaluating their peers' work. Such organization of the educational process eliminates the distinction between classroom activities and individual students' work. To make this flipped virtual classroom successful all stages of the teaching and learning process should be thoroughly integrated and planned.

Virtual Learning Platforms Applied in the Prototype

The virtual learning theory is as if the central methodology in creating the prototype in this study. In other words, the virtual learning or VL can be defined as a synchronous learning, in which students and instructors are simultaneously present on the system and have instant communications, and a significant place in the distance education process. The use of synchronous conferencing techniques can offer opportunities for social interaction in a virtual classroom space. Virtual Learning or VL sessions are mostly preferred in synchronous distance education systems. VL allows students and instructors from different geographic places to have a class by the help of audio-visual communication via video conferencing software. VL offers extensive meeting set-up features, providing both moderators and users with effective options for interaction and learning. These environments also have several interactive characteristics. They allow students and instructors to communicate orally, exchange messages through typing, share PowerPoint presentations, transmit video, surf websites together, and more (Engle & Parent-Stevens, 1999). Therefore, there are three main virtual platforms applied in this prototype for developing student' receptive skills, Second Life, VRChat, and ClassStart.

Second Life Applied in the Prototype

The Second Life implemented in this prototype is one of the platforms the teacher and students having interaction and communication in teaching and learning for developing the students' receptive skills especially for the reading skills through the lessons and virtual tasks prepared by the teacher. is a three-dimensional learning platform in a real-life environment. As developed by Linden Labs, second life can be accessible through the Web free of charge. Second life users can make an avatar which shows their presence and identity (Mathews et al., 2012; Dickey, 2003). The avatar also serves as users' eyes to view 3D virtual environments. The functions of avatars are various. That is, they can walk, fly, and teleport in simulated environments which cause many types of activities. To be more specific, there are three components of SL that are explored. The first component is the technical infrastructure, immersion, and socialization. These comprise major elements of the type and quality of experience that SL offers. They also represent dimensions that are essential in understanding its potential and the barriers to using virtual worlds in educational settings. The underlying architecture of SL is, also, built on a client-server model. The results had confirmed that the students enjoyed the activities while learning how to develop their reading skills online via the Second Life, "I have enjoyed the activities a lot as I like to be an avatar in the Second Life like we are having fun together with friends" one of the students revealed their opinion in their reflection" which is similarly to the previous study mentioned by Campbell (2009). The students from the study kept a private journal in WebCT 6, which was read only by the researcher. In this, they reflected on their use of Second Life and on the reading tasks they had been given. They posted between three and ten reflections during the course. The journals reflected the change in the student's knowledge and thinking. For example, one student commented in her first posting "I thought initially it looked like the virtual world of SIMS, "I never had this game", "This was hard to grasp", Social skills and role playing is not meant for the internet, nor any virtual world". This student's second post consisted of "I was surprised, after reading a number of the readings, that Second Life could be/and was being used as an educational tool. Although I am still reluctant to the idea of allowing students to explore a virtual world, I can understand

that it could be beneficial.” Moreover, the students not only felt enjoyable while learning through this platform, but they thought they can develop the skill more independently while having a teacher as a guide when needed, “I think I can improve my reading skill as I felt comfortable and enjoyed learning, and I can ask the teacher when I have some questions to be explained”. “I am not afraid of asking the teacher when I have the questions as I can ask him through the microphone, or I can type in the chat box instead I think I like it”. These show that the Second Life platform is extremely helpful in terms of developing students’ skill with less fear of having participation and asking the questions while teaching and learning compared to studying face to face. Most students felt that completing the activity made them more comfortable exploring new technologies. One student in the final questionnaire recorded “I may not have looked at these emerging technologies if they were not introduced into this class.” Another student recorded “practice and sharing information in the classroom (lab) is great, it's when I do the most learning!” While another student had a further perspective “having been in Second Life at the Uni, I am more willing to try it at home and also to try other new technologies.” However, one student disagreed with this as s/he “was already comfortable exploring all areas of technology” (Campbell, 2009).

VRChat Applied in the Prototype

VRChat is another effective platform applied in this prototype as it is a multiplayer online VR game. Although its name contains "VR", for some of its game functions, VR devices are not necessary. VRChat allows players to have their own image, to design their own rooms, to chat with other players in the square, and to play with friends or to watch movies in the game module. The high degree of freedom and creativity of VRChat make it all the rage. In this study, the VRChat platform has been applied specifically in developing students’ listening skills in the Stage 2: In-Virtual-Class via VR Chat for 60 minutes of the lesson conducted by the teacher for 5 times. The teacher and students have had the discussion, and participation for developing their listening skills through the platform following the lesson plans prepared by the teacher. The virtual tasks have confirmed that the students had different perspectives toward using this platform compared to the Second Life which is another platform

applied for learning English reading skills. “I think VRChat is easier to use compared to the Second Life, but I like the features of the Second Life more”. This can be explained by the previous study (Wang, 2020) mentioned that the number of its users has reached 4 million which is only 30% of the 4 million users are VR users, most users are only addicted to the game function of creating virtual image, rather than the social attribute of VR social games, and its features. In terms of interacting functions provided, the students can learn amazingly fast though there are some students have never experienced with this platform. “I have never used this platform before, but it is not difficult using and I like it”. Also, “It is incredibly fun, and I can learn how to use the features within no time”, and “I enjoyed VRChat as it looks like the games, and we can develop our English skills happily”. This reflects that applying this platform can benefit the students in terms of both their engagement and the skill development.

ClassStart Applied in the Prototype

Another platform applied in this prototype is the program called “ClassStart” which is the virtual platform enables teachers and students to connect to each other via computer’s microphone to talk in real-time for developing their English skills. Text as well as audio chat are available for communication. It also stores all the data after working on the lessons in the virtual space. It is available for later access. It helps students revise all the lessons they have learnt. It enables teachers to give a pictorial representation to all the lesson concepts concerning the English receptive skills lessons together with the collaborative work can be more engaging with the students of this feature. The students have been assigned to finish the virtual tasks in all lessons both for developing their reading and listening skills. The teacher begins posting any virtual tasks via this platform for the student at the stage one for the students review and learn autonomously and submit the tasks before the stage two which is the interactive class online through other two platforms, Second Life and VRChat. The students again submit the virtual tasks assigned at the final stage of learning either the virtual task of writing a reflective journal or any other reflective videos after class through this platform. “This platform is very organized, and I can find any tasks assigned by the teacher easily even I am not at the room in front of the computer”. The convenience mentioned by the student can confirm how the platform

benefit the students' learning activities. However, some students mentioned that "there is not any pop-up alerts which can help them to realize after the teacher post the tasks". They sometimes forgot to finish the tasks assigned at the stage one before having discussion at the following stage. "The virtual tasks assigned by the teacher at the end of the lesson is easier compared to the before class task posted in the Classtart" as they are the ones they had to finish right after having the activity at the end of the lesson. These all of classroom management tool of the Classtart is significantly beneficial to both the teacher and the students.

Effectiveness of the Developed Prototype of Virtual Learning Implemented in Flipped Classroom in Improving Thai Undergraduates' English Receptive Skills

After applying the prototype for developing the students' receptive skills through the 10-week lessons, the results show some significant development confirmed by the post-test English TOEIC scores as developing receptive skills can be particularly challenging especially when communicating with a fluent or native speaker. Although starting a conversation may be done with relative ease, maintaining one poses greater challenges. Most likely learners may not recognize features of connected speech or idiomatic language which may lead to an unsuccessful interaction which is similarly to the reading. If the language or grammar is too complicated, it makes the text unintelligible (Dana & Tagg, 1996).

Development of Students' English Listening Skills

After the experiment is done, the students were asked to take the post-evaluation exam which was the English standardized TOEIC test, and the scores are compared to the pre-test done in the beginning of the experiment. The Listening skill results of pre and post-tests comparison was analyzed. To be more specific, the results clearly shows that there is some significant difference between the pre-test and post-test as the Pre-test-TOEIC listening scores of 40 students participated in this study divided by their years of study, majors, and genders mean scores of the students divided by their years of study are considered interesting as the freshmen scores was ranked the highest at 267.78 followed by the junior's and the

sophomore's, 252.50 and 249.58, respectively. Considering their majors of study, the students from social science majors were ranked higher than that of the science's (266.25 and 250.75) while females had done the scores higher than that of males (267.83 and 245.88). Compared to the pre-test, the Post-test-TOEIC listening scores of the students participated in this study had been higher than that of their pre-test. The mean scores of the students divided by their years of study are considered interesting as the freshmen score was ranked the highest at 345.00 and it is higher than their pre-test of 267.78 scores followed by the sophomore's and the junior's, 287.50 which is higher than that of their pre-test of 252.50 and 283.00 which is higher than that of the pre-test of 249.58, respectively. Considering their majors of study, the students from social science major score was ranked higher than that of the science's (341.50 and 283.00) which are higher than that of the pre-test scores (266.25 and 250.75) while females had done the scores higher than that of males (326.30 and 293.24) which are higher than that of their pre-test scores (267.83 and 245.88).

Development of Students' English Reading Skills

In terms of reading skills, the students were asked to take the post-evaluation exam which was the English standardized TOEIC test after the experiment is done, and the scores are compared to the pre-test done in the beginning of the experiment. The reading skill results of pre and post-tests comparison was analyzed and they clearly show that there is some significant difference between the pre-test and post-test as the Pre-test-TOEIC reading scores of 40 students participated in this study divided by their years of study, majors, and genders mean scores of the students divided by their years of study are considered as the sophomore scores was ranked the highest at 162.08 followed by the freshmen's and the junior's, 154.44 and 151.50, respectively. Considering their majors of study, the students from science major score was ranked higher than that of the social sciences' (156.75 and 155.25) while females had done the scores higher than that of males (167.17 and 140.88). Compared to the pre-test, the Post-test-TOEIC listening scores of the students participated in this study had been

higher than that of their pre-test. The mean scores of the students divided by their years of study are considered interesting as the freshmen score was ranked the highest at 196.39 which is considered higher than that of their pre-test of 154.44 followed by the sophomore's and the junior's, 188.75 which is higher than that of their pre-test scores of 162.08 and 183.00 which is higher than that of their pre-test scores of 154.44, respectively. Considering their majors of study, the students from social science major score was ranked higher than that of the science's (200.25 and 181.25) which are higher than that of the pre-test scores (156.75 and 155.25) while females had done the scores higher than that of males (206.96 and 168.82) which are higher than that of their pre-test scores (161.17 and 140.88).

Significant Development of Students' English Receptive Skills

Considering the overall development of students' English receptive skills both listening and reading from their pre and post-test scores of the total English TOEIC scores, the results show that the students had significant development of their English receptive skills both listening and reading as their total English TOEIC scores from the post-test are higher than that of their pre-test. To be more specific, the freshmen had some development in English receptive skills as their post-test mean score was 541.39 which was higher than that of their pre-test, 422.22, at 119.17. Similarly, the sophomores' mean score of the pre-test, 476.25, is also higher than that of their pre-test, 411.67, at 64.58 while the results show some development happened among the juniors in a similar direction. The post-test mean score of the juniors, 466.00, is higher than that of their pre-test, 404.00, at 62. Overall, the freshmen had the highest development of English receptive skills followed by the sophomores and the juniors', respectively. In terms of majors of study, the results show that the students in both majors, science, and social science, had some development in English listening skills as their post-test mean score is higher than their pre-test. To be more specific, the students from majors of science had some development in English listening skills as their post-test mean score is 283.00 which is higher than that of their pre-test, 250.75, at 32.25. Similarly, the social science students' mean score of the pre-test, 341.50, is also higher than that

of their pre-test, 266.25, at 75.25. Overall, the students from majors of social science had higher development of English listening skills than the students from science at 43. Similarly, students with different genders had shown the significant English receptive skill development. Both males and females had some development in English listening skills as their post-test mean score is higher than their pre-test. To be more specific, the male students had some development in English listening skills as their post-test mean score is 293.24 which is higher than that of their pre-test, 245.88, at 47.36. Similarly, the female students' mean score of the pre-test, 326.30, is also higher than that of their pre-test, 267.83, at 58.47. Overall, the female students had higher development of English listening skills than the male students.

Conclusion

Although different virtual learning platforms have been applied in many ways of teaching and learning, the blended of virtual platforms such as the Second Life which is increasingly used, together with other two platforms of VRChat and the Classtart are considered scarce. To be more specific, those platforms applied with the principles of flipped learning for specifically developing students' English receptive skills, listening, and reading are limited (Sherman & Tillies, 2007). This research, therefore, had some natural further directions, which include applying the prototype applied by those platforms in the environment of virtual flipped learning in universities with undergraduate students. The students were all exposed to a new and innovative technology while none of them have ever used this blended virtual world before. They, therefore, could see the potential for its use for educational purposes, particularly with university classes. The students used a problem-based scenario approach to investigate the virtual platforms and determine the way to join the activities they could use in each assigned task setting. These activities were innovative, varied, and appear to be achievable in that they can be taught to university students, perhaps using virtual environment, such as Second Life, VRChat, and the Classtart. Before conducting this study, several goals were set. The evidence presented here demonstrates that the students' learning was enhanced through the procedures and the goals were achieved. The better skills the students

learned will be transferable into their general used skills while applying the skills into their daily life. Therefore, this study demonstrates that it does add to the literature on the virtual platforms being used in the field of education especially in teaching and learning English language. This is particularly important because to date, there have been almost no research published in the field of university students applying all the virtual platforms through the prototype designed in developing their English receptive skills although this will change very soon. These positive results can demonstrate in detail as recommendation of application for each different stakeholder as follows:

Recommendation for Educators or Language Teachers

Virtual Flipped Learning Based Design

The educators or language teachers are advised to apply this concept into their teaching methodology as the flipped based classroom research studied here applying the virtual platforms such as the Second Life which is openly free virtual space supporting the educators can prepare the lesson plans for the students to study outside of the classroom while having the ClassStart virtual platform as a classroom management program prepared all the instructions students can access easily freely anywhere and anytime before the another virtual closed designed platform like VRChat will be applied in another class session as an inside of the classroom following the concept of the flipped based learning. This will assist the educators to make the interaction of the students more effective and successful as the students feel more comfortable and confident asking questions and discussing the issues with the teacher and peers as they are living in an immersive virtual world through the avatar simulating and symbolizing their presence instead of communicating face to face

Second Life as an Opened Virtual Platform for Limited Programming Skilled Educators

The Second Life is one of the virtual platforms apply in this system prototype. This is advised to be applied by the educators who have limited knowledge of developing a virtual platform by applying programming knowledge as it is such a ready opened virtual world platform they can explore freely without payments. By registering for having a new account, the educator can instantly enjoy exploring any

virtual opened-environment platform that the educators themselves can choose as the class for the students. The platform represents dimensions that are essential in understanding its potential and the barriers to using virtual worlds in educational settings. The students not only feel enjoyable while learning through this platform, but they can develop the skill more independently while having a teacher as a guide when needed. These show that the Second Life platform is extremely helpful in terms of developing students' skill with less fear of having participation and asking the questions while teaching and learning compared to studying face to face as the platform can support the students feel them more comfortable while exploring new technologies. However, having the students explored how to access and use important keys or buttons for controlling prior to the class is needed.

ClassStart as a Teaching and Learning Materials Bank for Virtual Classroom Management Support

Another platform applied in this system prototype is the program called "ClassStart" which is advised the educators or language teachers to apply in teaching and learning as this platform enables teachers and students to connect to each other especially for the classroom management. The ClassStart itself can help the educator store all the documents applied in the class namely, the virtual tasks, class materials, tests, lessons, and the student homework, etc., This platform is, therefore, such a bank beneficial in terms of both educators and learners can collect and refer back from time to time when needed.

Recommendation for Educational Developers and the University Policy Makers

VRChat as a Closed Environment Virtual Platform Needed Programming Skill Support

As there are some limitations of having programming knowledge for developing the closed-environment virtual platform like the VRChat applied in the system prototype studied in this research, the university as a policy maker is advised to invest and support all the educators or language teachers upon their request of developing this virtual immersive platform for learning because this platform is very beneficial for the educators in different way compared to the earlier Second Life

platform as this can be controlled as a closed virtual environment platform the educator or the university themselves can manage and set the specific session for the students having the class similarly to the real face to face class. So that the educators can control the time management, the duration, and the sequences of the teaching and learning properly to each nature of the class which cannot be controlled in the freely virtual space environment in the Second Life. Thereby, the university as policy maker is advised to support the educators having this virtual platform designed by providing available programmer or developers for developing VRChat virtual space specifically for teaching and learning the target skill more successfully.

Recommendation for Further Study

Although this study has been done conducting the research particularly in English language teaching and learning for developing language learners' English receptive skills which are listening and reading skills, other productive skills namely speaking, and writing was interesting topics can be explored as there are limited studies conducting the topic by applying the virtual platforms advised from this study. Another potential research was with other students in different levels of education such as high school students, and the post-graduates were advised. Exploring the students studying teaching or the teacher themselves teaching in different subjects such as science and social studies related to applying the virtual platforms such as the Second Life, VRChat and the ClassStart.

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APPENDICES

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CHULALONGKORN UNIVERSITY

APPENDIX A

Sample of TOEIC Listening and Reading Tests

LISTENING TEST

In the Listening test, you will be asked to demonstrate how well you understand spoken English. The entire Listening test will last approximately 45 minutes. There are four parts, and directions are given for each part. You must mark your answers on the separate answer sheet. Do not write your answers in your test book.

PART 1

Directions: For each question in this part, you will hear four statements about a picture in your test book. When you hear the statements, you must select the one statement that best describes what you see in the picture. Then find the number of the question on your answer sheet and mark your answer. The statements will not be printed in your test book and will be spoken only one time.



Statement (C), "They're sitting at a table," is the best description of the picture, so you should select answer (C) and mark it on your answer sheet.

1.



2.



PART 2

Directions: You will hear a question or statement and three responses spoken in English. They will not be printed in your test book and will be spoken only one time. Select the best response to the question or statement and mark the letter (A), (B), or (C) on your answer sheet.

7. Mark your answer on your answer sheet.
8. Mark your answer on your answer sheet.
9. Mark your answer on your answer sheet.
10. Mark your answer on your answer sheet.

**PART 3**

Directions: You will hear some conversations between two or more people. You will be asked to answer three questions about what the speakers say in each conversation. Select the best response to each question and mark the letter (A), (B), (C), or (D) on your answer sheet. The conversations will not be printed in your test book and will be spoken only one time.

- | | |
|--|---|
| <p>32. Why is the woman calling?</p> <p>(A) To cancel an order
(B) To complain about a product
(C) To redeem a gift card
(D) To renew a warranty</p> | <p>35. Where do the speakers work?</p> <p>(A) At a hotel
(B) At a department store
(C) At a restaurant
(D) At a call center</p> |
| <p>33. What does the man ask the woman about?</p> <p>(A) A model name
(B) A brand of coffee
(C) A catalog number
(D) A date of purchase</p> | <p>36. What does the man ask about?</p> <p>(A) How many people have applied for a promotion
(B) If a manager is in the lobby
(C) Whether a position is available
(D) When new shifts will be assigned</p> |
| <p>34. What does the man offer to do?</p> <p>(A) Provide a discount
(B) Send a free sample
(C) Extend a warranty
(D) Issue a refund</p> <hr/> | <p>37. What does the woman say the man should be prepared to do?</p> <p>(A) Handle customer complaints
(B) Work within a budget
(C) Get to know local clients
(D) Work evening hours</p> <hr/> |

PART 4

Directions: You will hear some talks given by a single speaker. You will be asked to answer three questions about what the speaker says in each talk. Select the best response to each question and mark the letter (A), (B), (C), or (D) on your answer sheet. The talks will not be printed in your test book and will be spoken only one time.

71. What does the speaker say about the repair?
 (A) It is not required.
 (B) It has been finished early.
 (C) It will be inexpensive.
 (D) It is covered by a warranty.
72. When can the listener pick up his car?
 (A) Today
 (B) Tomorrow
 (C) Next week
 (D) In two weeks
73. What does the speaker offer to do?
 (A) Look for a used part
 (B) Refund the cost of a charge
 (C) Send an invoice
 (D) Arrange a ride
74. What kind of business does the speaker work for?
 (A) A restaurant
 (B) A supermarket
 (C) A furniture store
 (D) A fitness center
75. Why does the speaker assign extra work to the listeners?
 (A) A deadline is approaching.
 (B) A staff member is unwell.
 (C) Many customers are expected.
 (D) Equipment needs to be unpacked.
76. What does the speaker ask listeners to tell customers about?
 (A) New business hours
 (B) Discount cards
 (C) A special dish
 (D) A holiday sale



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READING TEST

In the Reading test, you will read a variety of texts and answer several different types of reading comprehension questions. The entire Reading test will last 75 minutes. There are three parts, and directions are given for each part. You are encouraged to answer as many questions as possible within the time allowed.

You must mark your answers on the separate answer sheet. Do not write your answers in your test book.

PART 5

Directions: A word or phrase is missing in each of the sentences below. Four answer choices are given below each sentence. Select the best answer to complete the sentence. Then mark the letter (A), (B), (C), or (D) on your answer sheet.

101. Customer reviews indicate that many modern mobile devices are often unnecessarily ----- .
 (A) complication
 (B) complicates
 (C) complicate
 (D) complicated
102. Jamal Nawzad has received top performance reviews ----- he joined the sales department two years ago.
 (A) despite
 (B) except
 (C) since
 (D) during
103. Gyeon Corporation's continuing education policy states that ----- learning new skills enhances creativity and focus.
 (A) regular
 (B) regularity
 (C) regulate
 (D) regularly
104. Among ----- recognized at the company awards ceremony were senior business analyst Natalie Obi and sales associate Peter Comeau.
 (A) who
 (B) whose
 (C) they
 (D) those
105. All clothing sold in Develyn's Boutique is made from natural materials and contains no ----- dyes.
 (A) immediate
 (B) synthetic
 (C) reasonable
 (D) assumed

PART 6

Directions: Read the texts that follow. A word, phrase, or sentence is missing in parts of each text. Four answer choices for each question are given below the text. Select the best answer to complete the text. Then mark the letter (A), (B), (C), or (D) on your answer sheet.

Questions 131-134 refer to the following e-mail.

To: Project Leads
From: James Pak
Subject: Training Courses

To all Pak Designs project leaders:

In the coming weeks, we will be organizing several training sessions for ----- employees. At Pak Designs, we believe that with the proper help and support from our senior project leaders, less ----- experienced staff can quickly ----- a deep understanding of the design process. -----, they can improve their ability to communicate effectively across divisions. When employees at all experience levels interact, every employee's competency level rises and the business overall benefits. For that reason, we are urging experienced project leaders to attend each one of the interactive seminars that will be held throughout the coming month. -----.

Thank you for your support.

James Pak
Pak Designs

131. (A) interest
(B) interests
(C) interested
(D) interesting

132. (A) develop
(B) raise
(C) open
(D) complete

134. (A) Let me explain our plans for on-site staff training.
(B) We hope that you will strongly consider joining us.
(C) Today's training session will be postponed until Monday.
(D) This is the first in a series of such lectures.

PART 7

Directions: In this part you will read a selection of texts, such as magazine and newspaper articles, e-mails, and instant messages. Each text or set of texts is followed by several questions. Select the best answer for each question and mark the letter (A), (B), (C), or (D) on your answer sheet.

Questions 147-148 refer to the following advertisement.



Used Car For Sale. Six-year-old Carlisle Custom. Only one owner. Low mileage. Car used to commute short distances to town. Brakes and tires replaced six months ago. Struts replaced two weeks ago. Air conditioning works well, but heater takes a while to warm up. Brand new spare tire included. Priced to sell. Owner going overseas at the end of this month and must sell the car. Call Firoozeh Ghorbani at (848) 555-0132.

147. What is suggested about the car?
- (A) It was recently repaired.
 - (B) It has had more than one owner.
 - (C) It is very fuel efficient.
 - (D) It has been on sale for six months.
148. According to the advertisement, why is Ms. Ghorbani selling her car?
- (A) She cannot repair the car's temperature control.
 - (B) She finds it difficult to maintain.
 - (C) She would like to have a newer model.
 - (D) She is leaving for another country.

APPENDIX B

CEFR Listening Rubric

OVERALL LISTENING COMPREHENSION

C2	<i>Has no difficulty in understanding any kind of spoken language, whether live or broadcast, delivered at fast native speed</i>
C1	<i>Can understand enough to follow extended speech on abstract and complex topics beyond his/her own field, though he/she may need to confirm occasional details, especially if the accent is unfamiliar. Can recognise a wide range of idiomatic expressions and colloquialisms, appreciating register shifts. Can follow extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly.</i>
B2	<i>Can understand standard spoken language, live or broadcast, on both familiar and unfamiliar topics normally encountered in personal, social, academic or vocational life. Only extreme background noise, inadequate discourse structure and/or idiomatic usage influence the ability to understand. Can understand the main ideas of propositionally and linguistically complex speech on both concrete and abstract topics delivered in a standard dialect, including technical discussions in his/her field of specialisation. Can follow extended speech and complex lines of argument provided the topic is reasonably familiar, and the direction of the talk is sign-posted by explicit markers.</i>
B1	<i>Can understand straightforward factual information about common everyday or job related topics, identifying both general messages and specific details, provided speech is clearly articulated in a generally familiar accent. Can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure etc., including short narratives.</i>
A2	<i>Can understand enough to be able to meet needs of a concrete type provided speech is clearly and slowly articulated. Can understand phrases and expressions related to areas of most immediate priority (e.g. very basic personal and family information, shopping, local geography, employment) provided speech is clearly and slowly articulated.</i>
A1	<i>Can follow speech that is very slow and carefully articulated, with long pauses for him/her to assimilate meaning.</i>

Council of Europe. Council for Cultural Co-operation. Education Committee. Modern
 จุฬาลงกรณ์มหาวิทยาลัย Languages Division. (2001).

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APPENDIX C

CEFR Reading Rubric

OVERALL READING COMPREHENSION

C2	<i>Can understand and interpret critically virtually all forms of the written language including abstract, structurally complex, or highly colloquial literary and non-literary writings. Can understand a wide range of long and complex texts, appreciating subtle distinctions of style and implicit as well as explicit meaning.</i>
C1	<i>Can understand in detail lengthy, complex texts, whether or not they relate to his/her own area of speciality, provided he/she can reread difficult sections.</i>
B2	<i>Can read with a large degree of independence, adapting style and speed of reading to different texts and purposes, and using appropriate reference sources selectively. Has a broad active reading vocabulary, but may experience some difficulty with low-frequency idioms.</i>
B1	<i>Can read straightforward factual texts on subjects related to his/her field and interest with a satisfactory level of comprehension.</i>
A2	<i>Can understand short, simple texts on familiar matters of a concrete type which consist of high-frequency everyday or job-related language Can understand short, simple texts containing the highest frequency vocabulary, including a proportion of shared international vocabulary items.</i>
A1	<i>Can understand very short, simple texts a single phrase at a time, picking up familiar names, words and basic phrases and rereading as required.</i>

Council of Europe. Council for Cultural Co-operation. Education Committee.
Modern Languages Division. (2001).



APPENDIX D
Listening Rubric

CATEGORY	4	3	2	1
<i>Respects Others</i>	Student listens quietly, does not interrupt, and stays in assigned place without distracting fidgeting.	Student listens quietly and does not interrupt. Moves a couple of times but does not distract others.	Student interrupts once or twice, but comments are relevant. Stays in assigned place without distracting movements.	Student interrupts often by whispering, making comments or noises that distract others OR moves around in ways that distract others.
<i>Comprehension</i>	Student seems to understand entire story and accurately answers 3 questions related to the story.	Student seems to understand most of the story and accurately answers 2 questions related to the story.	Student understands some parts of the story and accurately answers 1 question related to the story.	Student has trouble understanding or remembering most parts of the story.
<i>Participates Willingly</i>	Student routinely volunteers and answers to questions and willingly tries to answer questions s/he is asked.	Student volunteers once or twice and willingly tries to all questions s/he is asked.	Student does not volunteer answers, but willing tries to answer questions s/he is asked.	Student does not willingly participate.
<i>Thinks about Characters</i>	Student describes how a character might have felt at some point in the story and points out some pictures or words to support his/her interpretation without being asked.	Student describes how a character might have felt at some point in the story and points out some pictures or words to support his/her interpretation when asked.	Student describes how a character might have felt at some point in the story, but does NOT provide good support for the interpretation, even when asked.	Student cannot describe how a character might have felt at a certain point in the story.

CATEGORY	4	3	2	1
<i>Follows Along</i>	Student is on the correct page and is actively reading along (eyes move along the lines) or finger is following words being read aloud by others.	Student is on the correct page and usually appears to be actively reading but looks at the reader or the pictures occasionally. Can find place easily when called upon to read.	Student is on the correct page and seems to read along occasionally. May have a little trouble finding place when called upon to read.	Student is on the wrong page OR is clearly reading ahead or behind the person who is reading aloud.



APPENDIX E

Materials Used in Lesson Plan 1

APPENDIX 1E Instructional Videos: “Supporting details and patterns in reading”.

The video player shows a slide with the following content:

Public health	clinical medicine
<ul style="list-style-type: none"> • the community • prevention 	<ul style="list-style-type: none"> • the person • treatment

Clinical medicine is concerned with treating a person who has become ill. Public health, on the other hand, is concerned with protecting and improving the health of an entire community. Moreover, because public health treats the community before people

More videos

- PATTERNS IN READING AND THE MAIN IDEA
- LOCATION OF THE MAIN IDEA
- DISTINGUISHING BETWEEN FACT AND OPINION
- IMPLIED MAIN IDEA AND A STRATEGY
- ANALYZING THE ARGUMENT: PREMISES AND CONCLUSIONS (PART 1)
- Vocabulary Why should I care?

2:54 / 7:33

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY https://youtu.be/hq_719KzR74

APPENDIX 2 E Virtual Task 1.1 Note-taking.

← แบบฝึกหัด (อัตนัย)

⋮

bbarahhjoker.wixsite.com

ชื่อวันนี้ มีโปรโมชันมากมาย

✕ ⓘ

หัวข้อ

1. Virtual Task 1.1 Note-taking

เลยกำหนด

วันที่เริ่มต้น

Mon Aug 10 2020 09:00:00 GMT+0700 (+07) Mon Aug 10 2020 09:00:00 GMT+0700 (+07) 1 ปีที่แล้ว

กำหนดส่ง

Mon Aug 10 2020 10:00:00 GMT+0700 (+07) Mon Aug 10 2020 10:00:00 GMT+0700 (+07) 1 ปีที่แล้ว

คะแนนเต็ม

10

ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น

ไม่ใช่

อนุญาตให้ส่งซ้ำได้

ไม่ใช่

ประเภทแบบฝึกหัด

งานเดี่ยว

โจทย์

Instructions: • Students are logging into the Clasststart program via their own account. • Students are going to watch a video clip titled “Supporting details and patterns in reading” posted by the teacher in the Clasststart exercise section. • Students are going to finish the Virtual Task 1.1 Note-taking.

ไฟล์แนบ

ไม่มีไฟล์แนบ

APPENDIX 3E Reading passage: “The World History”.

A

DINO SCENE INVESTIGATION



Look at rocks and bones, dig up your own fossils, and find out how to identify prehistoric animals and plants at the Natural History Museum. Dinosaurs became extinct around 65 million years ago, so how do we know what they looked like and how they behaved? Bring your pupils to our Dino Scene Investigation workshops to find out!

If you want more from your dinosaur experience, you can actually spend the night in the museum. Our Dino Snores programme takes you into the museum and on your way to your ‘bedroom’ you solve a puzzle. You can then watch a film before going to sleep under the Diplodocus dinosaur. Although museum admission is free there is a charge for the Dino Snores events, so see the website for details.

B

TEAM-BUILDING THE MEDIAEVAL WAY



Bring your staff to our special Mediaeval Knight School for a company event they won’t forget! Our experienced knights will tell you about the history of Warwick Castle and will take you back to mediaeval times when the Castle’s soldiers were getting ready to fight. Your employees will improve their business skills, such as leadership and trust, while they learn about fighting with swords and bows and arrows.

For more information, contact our Sales Team.

C

EXCELLENT TECHNOLOGICAL ACHIEVEMENTS IN MOTORING!



Porsche has a unique history in motor racing and engineering innovation. The Porsche Museum in Stuttgart, Germany has around 80 of the most famous Porsche models in the history of the company. Children can take part in the ‘Museum Rallye’, which is a quiz relating to the exhibits. There is also a special children’s audio guide, which is available in several languages. They can learn about the exhibits in any order and at their own speed. It serves to present the excitement and variety of the Porsche brand to children from all over the world.

D

‘LIVE SCIENCE’ EXPERIENCES AND LEARNING LABS



Our vision is to inspire children to achieve their full potential in the fields of science, technology, engineering and medicine. In our ‘Live Science’ experiences, you can be an atom and discover which other atoms you bond with, or experiment with gravity by throwing things over the balcony!

In our ‘Moving with Newton’ Learning Lab, you can learn about Newton’s three laws of motion, or take part in our ‘Colourful Chemistry’ Learning Lab and see what happens when you mix and heat chemicals to produce light and colours.

You’ll find this and so much more at the Museum of Science and Industry Chicago!

Westbrook, C. (2014).

APPENDIX 4E Virtual Task 1.2 Reflective Journal

← บันทึกการเรียนรู้

English Reading And Listening (Virtual Class)

1. Virtual Task 1.2 Reflective Journal

ถูกใจ

ความเห็น แก้ไข

1

🌐

บา บาร่า แบ่งปันหน้าเนียนใส
 ชื่อวันนี้ มีโปรโมชั่นมากมาย
 แบ่งบาร่า ของแท้ ราคาดีสุด ผิวเนียนใส ผู้ใช้
 การันตีมากมาย ลดแลก แจก มากกว่า 100%
 babarahjoker.wixsite.com

เปิด

โฆษณาเพื่อสนับสนุน ClassStart

คู่มือการใช้งาน

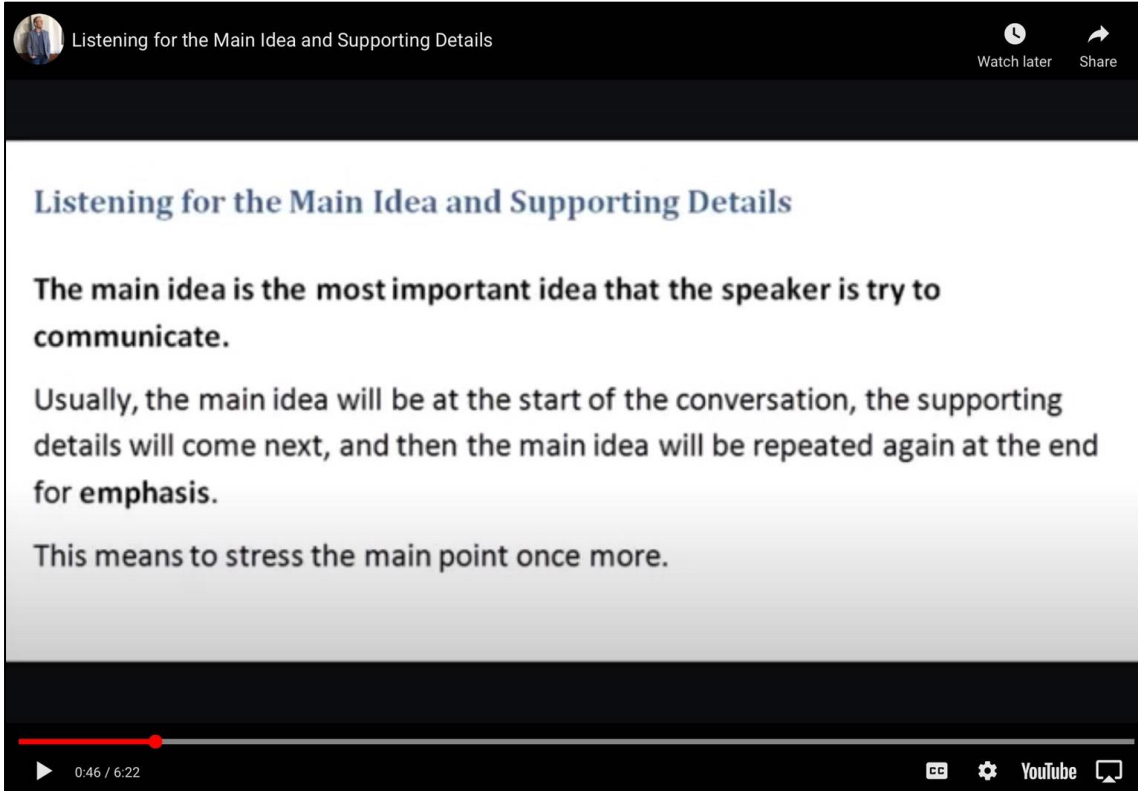
@classtart

support@classtart.org

ClassStart Academy

APPENDIX F
Materials Used in Lesson Plan 2

APPENDIX 1F Instructional Videos: “Listening for main ideas and supporting details”.



The screenshot shows a YouTube video player interface. At the top left, there is a profile picture and the video title "Listening for the Main Idea and Supporting Details". At the top right, there are icons for "Watch later" and "Share". The main content area is a white slide with a blue title "Listening for the Main Idea and Supporting Details". The slide contains the following text:

The main idea is the most important idea that the speaker is try to communicate.

Usually, the main idea will be at the start of the conversation, the supporting details will come next, and then the main idea will be repeated again at the end for **emphasis**.

This means to stress the main point once more.

At the bottom of the video player, there is a progress bar showing 0:46 / 6:22, and icons for closed captions, settings, YouTube logo, and a comment icon.

จุฬาลงกรณ์มหาวิทยาลัย https://youtu.be/rIk4LHiYc_A
CHULALONGKORN UNIVERSITY

APPENDIX 2F Virtual Task 1.1: Graphic Organizer

← แบบฝึกหัด (อัตนัย)

⋮

เกมออนไลน์มาแรงที่สุดตอนนี้

เกมออนไลน์ช่วยให้คุณผ่อนคลายตอนอยู่บ้าน แถมยังมีโปรโมชันมากมายให้เสี

salepage2

หัวข้อ

2. Virtual Task 1.1 Graphic Organizer

เลยกำหนด

วันที่เริ่มต้น

Wed Aug 12 2020 09:00:00 GMT+0700 (+07) Wed Aug 12 2020 09:00:00 GMT+0700 (+07) 1 ปีที่แล้ว

กำหนดส่ง

Wed Aug 12 2020 12:00:00 GMT+0700 (+07) Wed Aug 12 2020 12:00:00 GMT+0700 (+07) 1 ปีที่แล้ว

คะแนนเต็ม

10

ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น

ไม่ใช่

อนุญาตให้ส่งซ้ำได้

ไม่ใช่

ประเภทแบบฝึกหัด

งานเดี่ยว

โจทย์

Instructions:

Listen to the following video and create your own graphic organizer related to what you have understood from the video.

https://youtu.be/rlk4LHiYc_A

ไฟล์แนบ

ไม่มีไฟล์แนบ

APPENDIX 3F Virtual Task 1.2: Reflective Essay

The screenshot shows a mobile application interface for a virtual class. At the top, there is a navigation bar with a back arrow and the text "บันทึกการเรียนรู้" (Record Learning). Below this is a promotional banner for a game with Thai text: "ในนี้ประจำอีลิปโก้ 10%" and "เกมออนไลน์มาแรงที่สุดตอนนี้ เกมออนไลน์ช่วยให้คุณผ่อนคลายตอนอยู่บ้าน แถมยังมีโปรโมชันมากมายให้เลือกกัน". The main content area shows a home icon, the text "English Reading And Listening (Virtual Class)", and the task title "2. Virtual Task 1.2: Reflective Essay". Below the title, it says "Write your reflection concerning what you have studied." There are two buttons: a thumbs-up icon labeled "ถูกใจ" (Like) and a speech bubble icon labeled "ความเห็น" (Comment). At the bottom, there are two buttons: a speech bubble icon labeled "ความเห็น" (Comment) and a pencil icon labeled "แก้ไข" (Edit).



APPENDIX 4F Rubric for marking for graphic organizer.

Graphic Organizer Rubric

Student Name: _____ Score: _____
 _____/20

CATEGORY	4	3	2	1
Requirements	All requirements are met and exceeded.	All requirements are met.	One requirement was not completely met.	More than one requirement was not completely met.
Content	Covers topic in-depth with details and examples. Subject knowledge is excellent.	Includes essential knowledge about the topic. Subject knowledge appears to be good.	Includes essential information about the topic but there are 1-2 factual errors.	Content is minimal OR there are several factual errors.
Originality	Product shows a large amount of original thought. Ideas are creative and inventive.	Product shows some original thought. Work shows new ideas and insights.	Uses other people's ideas (giving them credit), but there is little evidence of original thinking.	Uses other people's ideas, but does not give them credit.
Mechanics	No misspellings or grammatical errors.	Three or fewer misspellings and/or mechanical errors.	Four misspellings and/or grammatical errors.	More than 4 errors in spelling or grammar.
Organization	Content is well organized using headings or bulleted lists to group related material.	Uses headings or bulleted lists to organize, but the overall organization of topics appears flawed.	Content is logically organized for the most part.	There was no clear or logical organizational structure, just lots of facts.

APPENDIX G
Materials Used in Lesson Plan 3

APPENDIX 1G Instructional Videos: “GISTS Reading Strategy”



The screenshot shows a YouTube video player. At the top left, there is a logo with the letter 'A' and the text 'GISTS Reading Strategy Video'. At the top right, there are icons for 'Watch later' and 'Share'. The main content of the video is a woman in a yellow top reading a newspaper article. The article's title is 'The Familiar Stranger: Anxiety, Comfort, and Play in Public Places'. There are pink and blue annotations on the video, including circles and arrows pointing to specific parts of the article. Below the video, there is a question: 'What is the "GISTS" of this article?'. At the bottom of the video player, there is a progress bar showing '0:06 / 4:10' and icons for 'CC', 'Settings', 'YouTube', and 'Fullscreen'.

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY
<https://youtu.be/W9QFbWZLmrs>

APPENDIX 2G Reading passage: “A British Wedding”.**A BRITISH WEDDING**

Weddings are important occasions in British life. They can be very expensive and take a long time to organize. There are also many traditional aspects of weddings that are important for people who get married. However, many traditions have become less common in recent years and marriage in Britain is changing.

Marriage is legal from the age of 18, but this can be lowered to 16 if the couple have their parents' permission. The average age of people who get married in the UK is about 30. People can marry in a civil ceremony, at a registry office, or they may have a religious ceremony in a church, mosque or other place of worship. All couples must sign a marriage certificate. This is a legal document which proves that they are married. Divorced men and women can remarry but this may not be possible in a church.

In the past, a traditional marriage in the UK meant a couple first got engaged. This was when the man formally asked the woman to marry him with a ring. It was also traditional, for the groom to ask the bride's father if he agreed. The wedding commonly took place at the bride's local church with about a hundred guests. It was a tradition for the groom's father to buy the flowers and champagne but for the bride's father to pay for everything else. The two families sat on different sides of the church and the bride's father gave away his daughter to the groom. Female friends and family members helped her with her long dress and were called bridesmaids. The couple exchanged rings, kissed and then signed the marriage certificate. When they left the church, guests threw paper confetti at them and took a lot of photographs. Everyone then went to a hotel or restaurant for the wedding reception and they had a meal, made speeches and danced. The guests brought wedding presents for the couple's new home and the couple then went on a long holiday called a honeymoon. The new bride took her husband's surname.

These days, however, many people do not always follow tradition so closely. It is now common for the woman to ask the man to marry her, and not many men ask the woman's father for her hand in marriage. People frequently marry in a town hall. A few even marry on a beach in a hot country. The couple tend to pay for the wedding themselves but still expect both families to help them pay for the reception. These days not every woman wants to change her surname so she might keep her maiden name or take both names.

Westbrook, C. (2014).

APPENDIX 4G Virtual Task 1.2: Reflective Video Presentation.

← บันทึกการเรียนรู้

⋮

🏠 English Reading And Listening (Virtual Class)

3. Virtual Task 1.2 Reflective video presentation

Instructions:

After having done the class, students are asked to create their own reflection of the class in the form of video presentation talking about what they have learnt previously.

The video is not longer than 3 minutes and it needs to be uploaded into YouTube and the link will be attached here as submission of the work.

ไม่มีไฟล์แนบ

+ เพิ่มไฟล์แนบ

ถูกใจ

ความเห็น

เขียน
พรีวิว

ข้อความ *

ขณะนี้สามารถเขียนแบบ Markdown ได้
วิธีการเขียนแบบ Markdown

APPENDIX 5G Rubric for Marking Writing Outline.

Outline Rubric

	4	3	2	1
Ideas/Content	Well-summarized main ideas and details in outline.	Main ideas and details adequately covered in outline.	Some main ideas or details not covered in outline.	Main ideas or details not sufficiently covered in outline.
Organization	Details well organized under correct main ideas.	Most details under correct main ideas.	Some details under correct main ideas.	Little understanding of outline format.
Word Choice	Specific, clear, and precise.	Mostly specific and clear.	Sometimes specific, sometimes unclear.	Vague or incorrect words often used.
Sentence Fluency	Correct, brief sentences used throughout outline.	Correct sentence usage.	Some sentences, some fragments.	Error-filled, many fragments.
Conventions	Correct outline format; excellent control.	Format correct; good control with few errors.	Errors in format, spelling, capitalization, grammar, and usage.	Outline format lacking; many errors.

APPENDIX 6G Rubric for Marking Reflective Video Presentation.

Skills	5	4	3	2	1
Depth of reflection	Demonstrate a conscious and thorough understanding of the subject matter. This reflection can be used as an example for other students.	Demonstrate a thoughtful understanding of the subject matter.	Demonstrate a basic understanding of the subject matter.	Demonstrate a limited understanding of the subject matter. This reflection needs revision.	Demonstrate little or no understanding of the subject matter. This reflection needs revision.
Use of textual evidence	Use specific and convincing examples from the texts studied to support claims in your own writing, making insightful and applicable connections between texts.	Use relevant examples from the texts studied to support claims in your own writing, making applicable connections between texts.	Use examples from the text to support most claims in your writing with some connections made between texts.	Use incomplete or vaguely developed examples to only partially support claims with no connections made between texts.	No examples from the text are used and claims made in your own writing are unsupported and irrelevant to the topic at hand.
Language use	Use language that is precise and engaging, with notable sense of voice, awareness of audience and purpose, and varied sentence structure.	Use language that is fluent and original, with a sense of voice, awareness of audience and purpose, and the ability to vary sentence structure.	Use basic but appropriate language, with a basic sense of voice, some awareness of audience and purpose and some attempt to vary sentence structure.	Use language that is vague or imprecise for the audience or purpose, with little sense of voice, and a limited awareness of how to vary sentence structure.	Use language that is unsuitable for the audience and purpose, with little or no awareness of sentence structure.
Conventions	Demonstrate control of the conventions with essentially no errors, even with sophisticated language.	Demonstrate control of the conventions, exhibiting occasional errors only when using sophisticated	Demonstrate partial control of the conventions, exhibiting occasional errors that do not hinder comprehension.	Demonstrate limited control of the conventions, exhibiting frequent errors that make comprehension difficult.	Demonstrate little or no control of the conventions, making comprehension almost



APPENDIX H
Materials Used in Lesson Plan 4

APPENDIX 1H Instructional Videos: “Ted-talk on Health and Fitness-how to get fit”.



จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY
<https://youtu.be/z6ffSvkAkSM>

APPENDIX 2H Instructional Videos: “How to Improve
Your Skills by Listening for Details”

How to Listen for Details & Improve Your Skills

Watch later Share Info

interactive ENGLISH

What are details?

Specific information that you hear that may be important to communicate to others

DETAILS

MORE VIDEOS

2:47 / 20:56

CC Settings YouTube

APPENDIX 3H Virtual Task 1.1: Classroom Poll

← แบบฝึกหัด (อัตนัย)

⋮

น้ำห้วปสี น้ำขิง

อันดับ 1 ของคุณ!

หัวข้อ
4. Virtual Task 2.1 Picture Dictation

เลือกกำหนด

วันที่เริ่มต้น
Mon Aug 17 2020 09:00:00 GMT+0700 (+07) Mon Aug 17 2020 09:00:00 GMT+0700 (+07) 1 ปีที่แล้ว

กำหนดส่ง
Mon Aug 17 2020 12:00:00 GMT+0700 (+07) Mon Aug 17 2020 12:00:00 GMT+0700 (+07) 1 ปีที่แล้ว

คะแนนเต็ม
10

ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น
ไม่ใช่

อนุญาตให้ส่งซ้ำได้
ไม่ใช่

ประเภทแบบฝึกหัด
 งานเดี่ยว

โจทย์

Instructions:

Upload the answers of picture dictation you have done in the class here.

ไฟล์แนบ
ไม่มีไฟล์แนบ

+ เพิ่มไฟล์แนบ

APPENDIX 4H Virtual Task 1.2: Reflective Advocacy Video

← แบบฝึกหัด (อัตนัย)

⋮

Decathlon Thailand

อุปกรณ์ฟิตเนส สร้างกล้ามเนื้อ

หัวข้อ

3. Virtual Task 1.2 Reflective Advocacy Video

เลือกกำหนด

วันที่เริ่มต้น

Mon Aug 17 2020 09:00:00 GMT+0700 (+07) Mon Aug 17 2020 09:00:00 GMT+0700 (+07) 1 ปีที่แล้ว

กำหนดส่ง

Mon Aug 17 2020 12:00:00 GMT+0700 (+07) Mon Aug 17 2020 12:00:00 GMT+0700 (+07) 1 ปีที่แล้ว

คะแนนเต็ม

10

ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น

ไม่ใช่

อนุญาตให้ส่งซ้ำได้

ไม่ใช่

ประเภทแบบฝึกหัด

งานเดี่ยว

โจทย์

Instructions:

Create a 5 minute video about the issues concerning health and how it can be resolved. The video should be creative and interesting. After recording, the video should be uploaded into YouTube and attach the link here for submission.

ไฟล์แนบ

APPENDIX 5H Virtual Task 2.1: Picture Dictation

← แบบฝึกหัด (อัตนัย)

⋮

น้ำห้วปสี น้ำขิง

อันดับ 1 ของคุณ

หัวข้อ
4. Virtual Task 2.1 Picture Dictation

เลยกำหนด

วันที่เริ่มต้น
Mon Aug 17 2020 09:00:00 GMT+0700 (+07) Mon Aug 17 2020 09:00:00
GMT+0700 (+07) 1 ปีที่แล้ว

กำหนดส่ง
Mon Aug 17 2020 12:00:00 GMT+0700 (+07) Mon Aug 17 2020 12:00:00
GMT+0700 (+07) 1 ปีที่แล้ว

คะแนนเต็ม
10

ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น
ไม่ใช่

อนุญาตให้ส่งซ้ำได้
ไม่ใช่

ประเภทแบบฝึกหัด
 งานเดี่ยว

โจทย์

Instructions:

Upload the answers of picture dictation you have done in the class here.

ไฟล์แนบ
ไม่มีไฟล์แนบ

+ เพิ่มไฟล์แนบ

APPENDIX 6H Rubric for advocacy video

Video Project Rubric

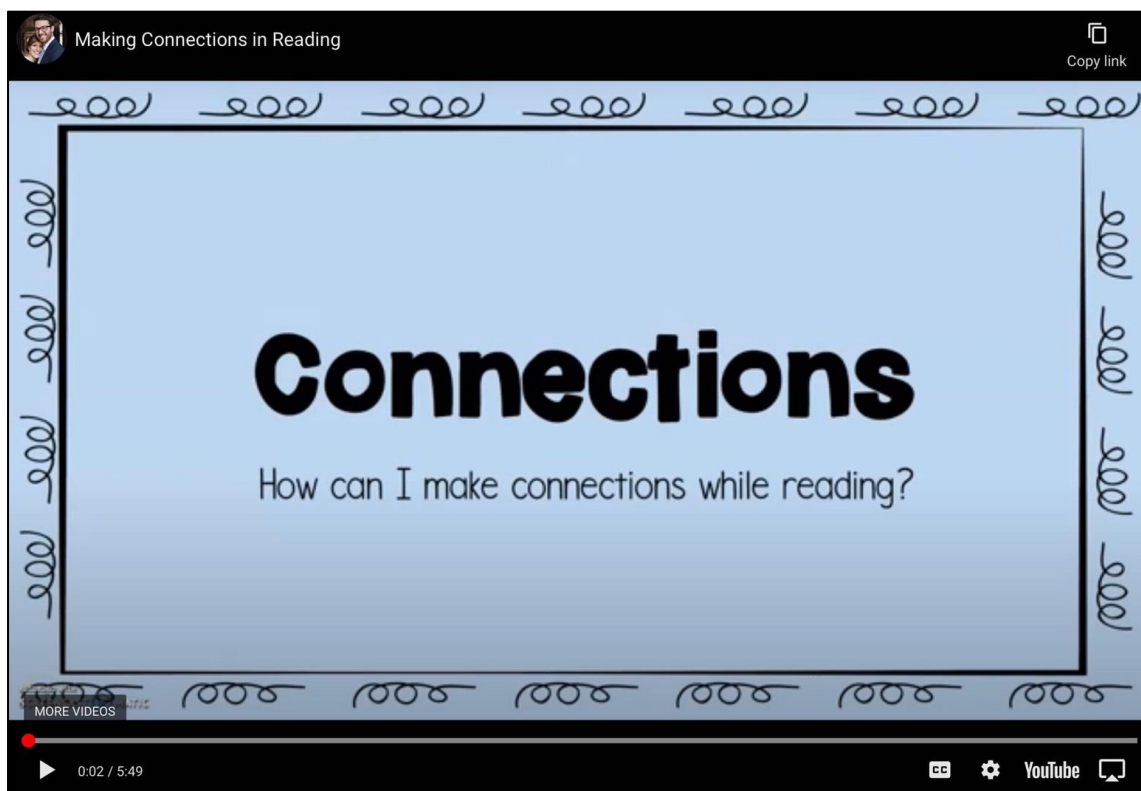
Student Name: _____

Task Description: Students will work together in assigned teams to create a video project that details a specific aspect of the course. The presentation should include appropriate photographs, video, music, graphs, and other visual aids. The final project should be burned to a DVD in a Full Quality QuickTime movie format.

ACTIVITY	Exemplary	Proficient	Partially Proficient	Incomplete	POINTS
Concept	15-20 points Has a clear picture of what they are trying to achieve. Adequate description of what they are trying to do and generally how his/her work will contribute to the final project.	10-14 points Has a fairly clear picture of what they are trying to achieve. Can describe what they are trying to do overall but has trouble describing how his/her work will contribute to the final project.	5-9 points Has brainstormed their concept, but no clear focus has emerged. Goals/final product not clearly defined.	0-4 points Little effort has been spent on brainstorming and refining a concept. Unclear on the goals and how the project objectives will be met.	
Script/ Storyboard	12-15 points The storyboard illustrates the video presentation structure with thumbnail sketches of each scene. Notes of proposed transition, special effects, sound and title tracks incl: text, color, placement, graphics, etc. Notes about proposed dialogue/ narration text are included.	8-11 points The storyboard includes thumbnail sketches of each video scene and includes text for each segment of the presentation, descriptions of background audio for each scene, and notes about proposed shots and dialogue.	4-7 points The thumbnail sketches on the storyboard are not in logical sequence and do not provide complete descriptions of the video scenes, audio background, or notes about the dialogue.	0-3 points There is no evidence of a storyboard or script.	
Content/ Organization	15-20 points The content includes a clear statement of purpose or theme and is creative, compelling and clearly written. A rich variety of supporting information in the video contributes to the understanding of the project's main idea. Events and messages are presented in a logical order. Includes properly cited sources.	10-14 points Information is presented as a connected theme with accurate, current supporting information that contributes to understanding the project's main idea. Details are logical and persuasive information is effectively used. The content includes a clear point of view with a progression of ideas and supporting information. Includes	5-9 points The content does not present a clearly stated theme, is vague, and some of the supporting information does not seem to fit the main idea or appears as a disconnected series of scenes with no unifying main idea. Includes few citations and few facts.	0-4 points Content lacks a central theme, clear point of view and logical sequence of information. Much of the supporting information is irrelevant to the overall message. The viewer is unsure what the message is because there is little persuasive information and only one or two facts about the topic are articulated. Information is	

APPENDIX I
Materials Used in Lesson Plan 5

APPENDIX 1I Instructional Video: “Learn how to make connections”.



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CHULALONGKORN UNIVERSITY

<https://youtu.be/SHsdQvsN8ag>

APPENDIX 2I Reading Passage “The World’s Big City Problems”

Many of the world’s big cities have problems with congestion. There is simply far too much traffic, so governments everywhere have to think about how to solve the problem.

Traffic jams have a number of negative effects. They cause stress to drivers, which may lead to health problems or road rage. They can also reduce productivity because products cannot be delivered on time and employees arrive late for work or meetings. Another important issue is that the emergency services can become caught in traffic. Finally, there are the negative effects that traffic congestion causes to the environment. Traffic congestion wastes fuel, which in turn produces more carbon dioxide through the car exhausts and contributes to the greenhouse effect.

However, there are a number of steps that can be taken to reduce road congestion. The most obvious solutions involve engineering. This means building more roads with wider lanes so that more cars can travel at the same time. Tunnels and bridges can be constructed in order to reduce the congestion that happens when cars have to stop at traffic lights. However, the problems with these kind of solutions are the construction costs and that more roads may actually encourage more traffic.

Other, more creative solutions to the congestion problem are to increase tax on fuel so that it is more expensive, or make people pay to travel on certain roads such as in the centre of a city or on a motorway. If we do this, people are more likely

to think carefully about using their car. However, taxing fuel and roads may mean that some people cannot afford to drive their cars and may have to give up their jobs. Also, governments may not want to increase fuel taxation too much if it is unpopular with voters.




A more popular solution, therefore, would be to encourage other forms of transport which will lead to fewer cars on the road. One suggestion is to encourage people to cycle more. Although this mode of transport has obvious health benefits and reduces air pollution, it is not very practical in every climate and can prove dangerous in heavy traffic.

Another possibility is to persuade people to use buses. This means many people can travel in just one vehicle. However, generally, people dislike the image travelling by bus creates. A park and ride system can allow people to drive to the edge of cities, park and then take a bus to the city centre. This allows some flexibility for car drivers but reduces city centre congestion. However, the buses tend not to run at night.

Overall, although there are a number of good ways to tackle this problem, some of these also have negative effects. It would seem that encouraging alternative forms of transport is probably the best solution as this solves the congestion problems and reduces the amount of traffic at the same time, which will also have a positive effect on the environment.

APPENDIX 3I Virtual Task 1.1: Mind mapping

← แบบฝึกหัด (อัตนัย)

หัวข้อ
5. Virtual Task 1.1 Mind Mapping

เลยกำหนด


วันที่เริ่มต้น
Tue Aug 18 2020 09:00:00 GMT+0700 (+07) Tue Aug 18 2020 09:00:00
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กำหนดส่ง
Tue Aug 18 2020 23:55:00 GMT+0700 (+07) Tue Aug 18 2020 23:55:00
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คะแนนเต็ม
10

ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น
ไม่ใช่

อนุญาตให้ส่งซ้ำได้
ไม่ใช่


ประเภทแบบฝึกหัด
 งานเดี่ยว

โจทย์

After reading the passage of “The World’s Big City Problem”, you are asked to write the mind mapping about related ideas got from the reading passage and attach your work here.

ไฟล์แนบ

Many of the world’s big cities have problems with congestion. There is simply far too much to think carefully about using their car. However, taxing fuel and roads may mean that some people



APPENDIX 4I Virtual Task 1.2: Travelog

← แบบฝึกหัด (อัตนัย)

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5. Virtual Task 1.2 Travelog

เลยกำหนด

วันที่เริ่มต้น
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กำหนดส่ง
Wed Aug 19 2020 23:55:00 GMT+0700 (+07) Wed Aug 19 2020 23:55:00 GMT+0700 (+07) 1 ปีที่แล้ว

คะแนนเต็ม
10

ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น
ไม่ใช่

อนุญาตให้ส่งซ้ำได้
ไม่ใช่




ประเภทแบบฝึกหัด
 งานเดี่ยว

โจทย์

After reading the passage, "The World's Big City Problems", a travelog is assigned which is an essay about your travel according to the content in the passage. This writing activity requires at least 150 words. Your travelog should have the following: 1.) Picture of the place you visited; 2.) Give a short description of the picture; 3.) Highlight the attractive destinations you visited in your travel; 4.) Share the transportation details in reaching the place; 5.) Mention some good accommodation to consider; 6.) Give some cultural background of the places; 7.) Mention the things and/or activities that should be avoided.

APPENDIX 5I Virtual Task 2.1: Pop Quiz

← แบบฝึกหัด (อัตนัย)

ตัวหมอนอนิเมชันน่ารักหลากหลาย

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หัวข้อ
5 Virtual Task 2.1 Pop Quiz

เลยกำหนด


วันที่เริ่มต้น
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กำหนดส่ง
Wed Aug 19 2020 23:55:00 GMT+0700 (+07) Wed Aug 19 2020 23:55:00 GMT+0700 (+07) 1 ปีที่แล้ว

คะแนนเต็ม
9

ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น
ไม่ใช่

อนุญาตให้ส่งซ้ำได้
ไม่ใช่


ประเภทแบบฝึกหัด
 งานเดี่ยว

โจทย์

Read the following passage and finish the following exercises:

Answer the questions below

1. How did the 2008-2009 global financial crisis affect Masdar City project?
2. Why could the PRT be a target for vandalism?
3. What are the safety concerns for a PRT system?
4. Would you like to live in Masdar city? Why?/ Why not?
5. Would a PRT system work in Thailand? Why?/ Why not?



APPENDIX 6I Rubric for Marking Travelog.

	4	3	2	1
Ideas/Content	Well-summarized main ideas and details in outline.	Main ideas and details adequately covered in outline.	Some main ideas or details not covered in outline.	Main ideas or details not sufficiently covered in outline.
Organization	Details well organized under correct main ideas.	Most details under correct main ideas.	Some details under correct main ideas.	Little understanding of outline format.
Word Choice	Specific, clear, and precise.	Mostly specific and clear.	Sometimes specific, sometimes unclear.	Vague or incorrect words often used.
Sentence Fluency	Correct, brief sentences used throughout outline.	Correct sentence usage.	Some sentences, some fragments.	Error-filled, many fragments.
Conventions	Correct outline format; excellent control.	Format correct; good control with few errors.	Errors in format, spelling, capitalization, grammar, and usage.	Outline format lacking; many errors.

APPENDIX J
Materials Used in Lesson Plan 6

APPENDIX 1J Instructional Video: “Listening skill inferences”.



<https://youtu.be/DRMyeG6Zejw>
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APPENDIX K
Materials Used in Lesson Plan 7

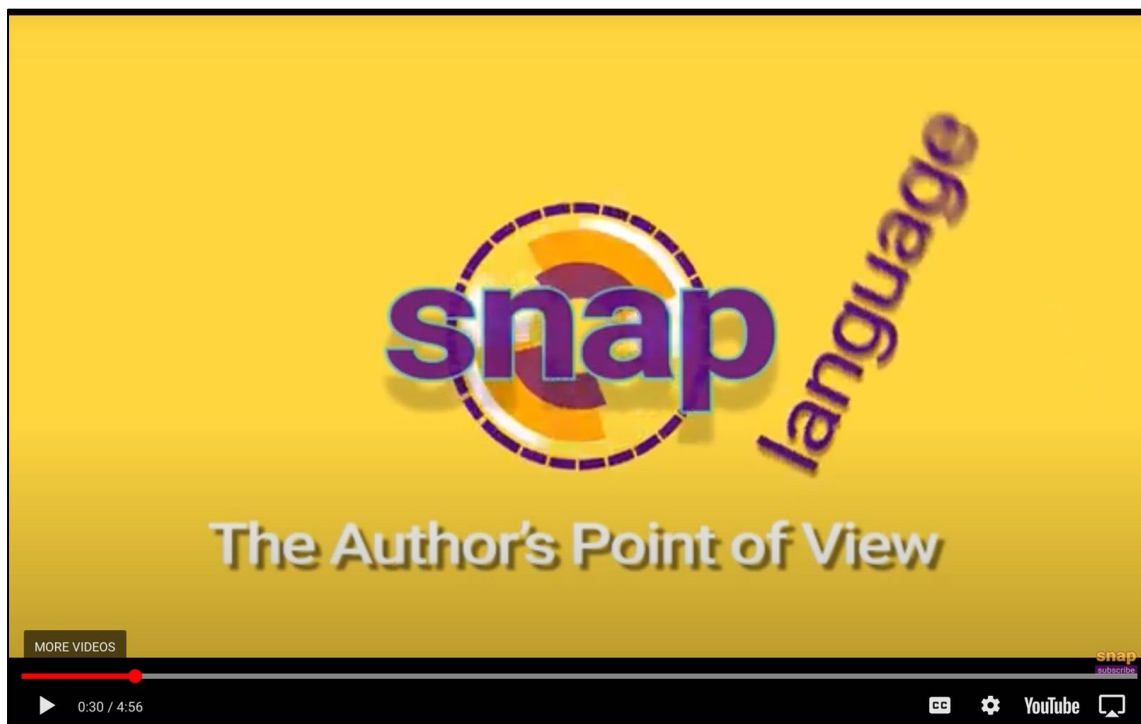
APPENDIX 1K Instructional Video: “Author's Purpose”.



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<https://youtu.be/z6H2NLPqWtI>

APPENDIX 2K Instructional Video: “How to crack easily the writer’s view”.



<https://youtu.be/aptsr0CrpWY>



APPENDIX 3K Reading Passage: Read and Travel.

Your room at a glance

INSTANT SERVICE

To make your stay more enjoyable, Instant Service is available “around the clock” for any requests.

WAKE-UP SERVICE

Please contact Instant Service.

IN-ROOM BAR

Your private bar is stocked daily with a variety of drinks and snacks. Items removed are automatically charged to your account. A menu with pricing is located in your room.

THE INTERNET

Your room is equipped with high speed Internet access. A daily access fee will be assessed to your account.

EXPRESS CHECK-OUT

For a fast and effortless check-out, please utilize our voicemail check-out by dialing extension 4510 and leave your name and room number.

IN-ROOM COFFEE

Complimentary coffee is replenished daily in your room. Keurig-makers have directions located on the front of the machine. If further assistance is required please dial Instant Service. Complimentary coffee and tea is also served in the Lobby from 6:00AM to 7:00AM.

FITNESS CENTER

The Fitness Center offers an assortment of cardio and weight training equipment. Available 24 hours a day with a guestroom key card access on the third floor. Access to the steam room and sauna are available from 6:00AM to 8:00PM.

IN-ROOM SAFE

The safe can be programmed with a personalized four-digit pin code for each use. Please see detailed instructions located in the safe. Alternatively, safe deposit boxes are available at the Reception Desk.

HOUSEKEEPING SERVICE

Your room is serviced daily between 8:30AM and 2:30PM Monday through Friday; between 9:00AM and 3:00PM Saturday, Sunday and Holidays. For fresh towels after service hours, please dial Instant Service.

LAUNDRY & SHOE SHINE

Please find instructions in your closet for Laundry, Pressing and Dry Cleaning Service. For Shoe Shine service, please contact Instant Service for pick-up.

ENTERTAINMENT

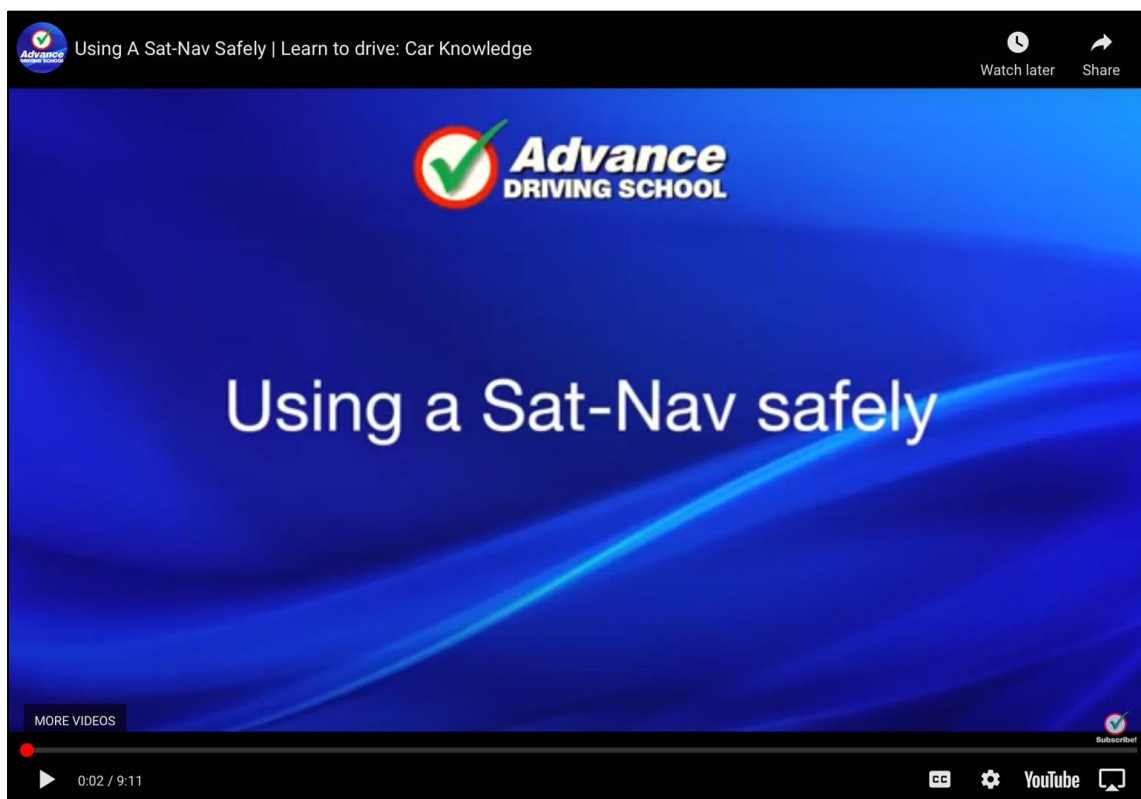
For your viewing pleasure we are pleased to offer a selection of pay per view movies and entertainment options. To view these and other options, press the menu button on the remote control.

APPENDIX L
Materials Used in Lesson Plan 8

APPENDIX 1L Instructional Video: “Listening Questions - Gist-Purpose and Gist-Content”.



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CHULALONGKORN UNIVERSITY https://youtu.be/3zDIZD73_24

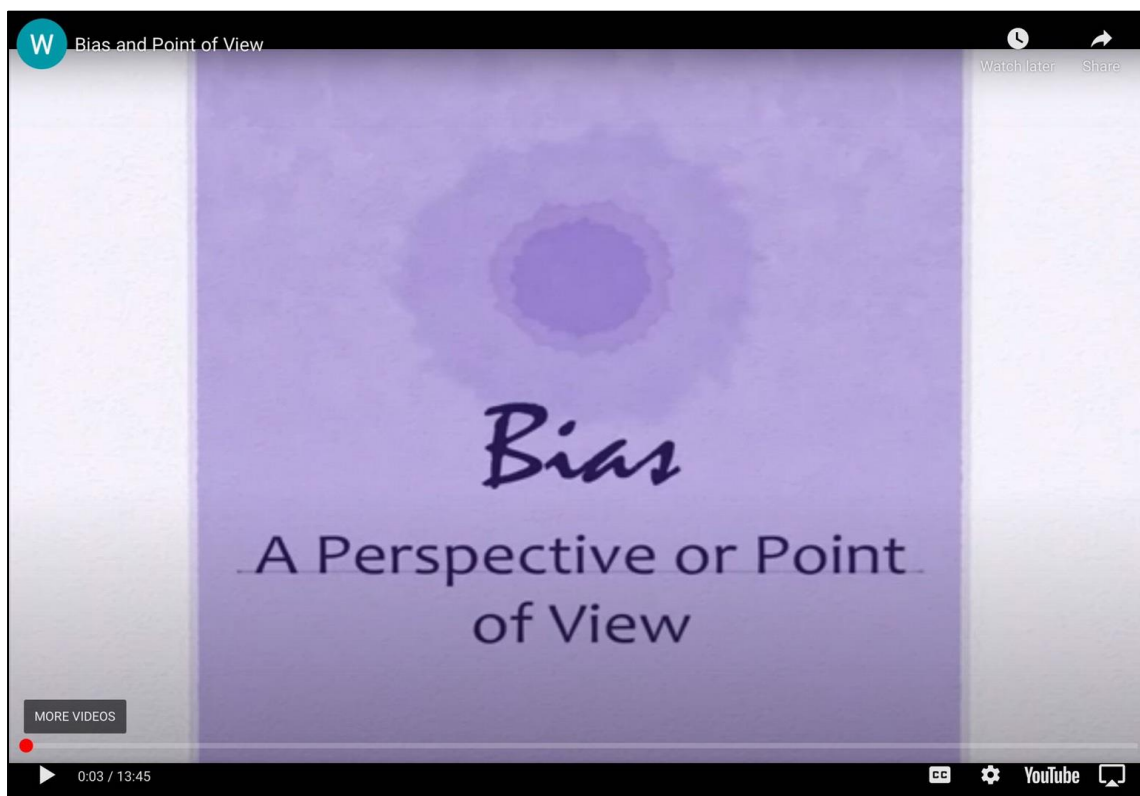
APPENDIX 2L Listening audio: Satnav “Using a Sat-Nav Safely”.

<https://youtu.be/tKuCvcq2P-8>



APPENDIX M
Materials Used in Lesson Plan 9

APPENDIX 1M Instructional Video: “Bias and Point of View”.



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https://youtu.be/5MOQo0j_k3c

APPENDIX 2M Reading passage titled “Offshore Production”.

The expanding economy and rising population have brought great benefits to Abu Dhabi but with them comes a major issue: traffic jams. Abu Dhabi, like many UAE cities, has a major issue with traffic congestion, and, although it is not as bad as in some cities, the average commuting time of 45 minutes is quite high.

Abu Dhabi’s answer to this is Masdar City, a new city being built near the airport on the outskirts of Abu Dhabi. Masdar, which means ‘source’, is a city which gets all of its electricity from the environment by using renewable energy sources such as solar power. There is a wall around the city to keep out the hot desert wind and the streets are narrow. There is therefore more shade from the sun, and the breeze passes through the streets better. As a result, the city is about 15 °C cooler than Abu Dhabi.

There is no traffic congestion in the six-kilometre-square city of Masdar because cars are not allowed in the city. Instead, people use public transport. There is an underground rail system and a Light Rail Transit system, which run through the centre of the town and connect Masdar to

Abu Dhabi and the airport. A Personal Rapid Transit system (PRT) was also planned. This is a system of small, personalised, electric machines that run on solar energy. They are controlled wirelessly and move by being pulled along by magnets along their route. The plan was that 3,000 ‘podcars’, which can carry 2 to 6 passengers, would drive people to about 100 stations all around the city and also take them from outside the city, where they would leave their cars, to their destination in the city.

The problem is that the costs of building Masdar City are substantial: it was projected to cost around US \$24 billion, but the global financial crisis of 2008–9 had a negative effect on the plans. Planners now have to find a way to build the PRT at a much lower cost. The dream of a carbon-neutral, congestion-free city could become reality in the future but there are other issues. There is the risk of vandalism for the PRT and also safety concerns about these pilotless cars. However, if all of the problems are solved, the benefits of Masdar City’s green solutions to both traffic and environmental problems will certainly outweigh the financial investment in the longer term.



Masdar
the future of cities?

APPENDIX N**Materials Used in Lesson Plan 10**

APPENDIX 1N Instructional Video: “How to crack easily the writer’s view”.



<https://youtu.be/lqGvYT5CJqs>



APPENDIX 2N Instructional Video: Ted Talk: “Life of Influencers- how to change the world by being an influencer”.






<https://youtu.be/5fo0Ujm4RW8>



APPENDIX 3N Virtual Task 1.1: Short Paragraph.

← แบบฝึกหัด (อัตนัย)

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10. Virtual Task 1.1 Short Paragraph

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คะแนนเต็ม
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ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น
ไม่ใช่


อนุญาตให้ส่งซ้ำได้
ไม่ใช่

ประเภทแบบฝึกหัด
 งานเดี่ยว

โจทย์

After watching a vlog video, you are asked to write a short paragraph concerning your view on the topic: Vloggers as Influencers. In writing your short paragraph, you should have the following: 1.) A clear topic sentence that discusses the point you are raising; 2.) At least three supporting details to strengthen your point; 3.) A concluding statement that wraps your paragraph.

ไฟล์แนบ
ไม่มีไฟล์แนบ



APPENDIX 4N Virtual Task 2.1: Venn Diagram.

← แบบฝึกหัด (อัตนัย)

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10. Virtual Task 2.1 Venn diagram

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คะแนนเต็ม

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ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น

ไม่ใช่

อนุญาตให้ส่งซ้ำได้

ไม่ใช่

ประเภทแบบฝึกหัด

งานเดี่ยว

โจทย์

Instructions: After viewing the video concerning the influencers, students are asked to create the Venn diagram about the similarities and differences of the influencers in the old day and in the modern social media era.

ไฟล์แนบ



ไม่มีไฟล์แนบ

+ เพิ่มไฟล์แนบ

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APPENDIX 5N Virtual Task 1.2: Vlog Entry.

← แบบฝึกหัด (อัตนัย)



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10. Virtual Task 1.2 Vlog Entry

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คะแนนเต็ม

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ไม่แสดงคะแนนคำตอบให้ผู้เรียนเห็น

ไม่ใช่

อนุญาตให้ส่งซ้ำได้

ไม่ใช่


ประเภทแบบฝึกหัด

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โจทย์

After watching the two vlog videos, you are to create your own vlog entry on your chosen content. The vlog should only run from 5 to 7 minutes. In your vlog, you should have the following: 1.) A clear content on your vlog; 2.) Good music selection; 3.) Audible sound; 4.) Your entry should be uploaded in the learning management system.

After having done the Vlog, you need to upload the video into Youtube and submit the link here.



VITA

NAME Mr.Hambalee Jehma

DATE OF BIRTH 9 September 1986

PLACE OF BIRTH Songkhla

INSTITUTIONS ATTENDED June 2006-April 2010 Thammasat University, Thailand
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