Research Article:

Integrating Self-Generated Online Projects in an ELT Class at a Thai University during the COVID-19 Pandemic

Kornwipa Poonpon

English Department, Faculty of Humanities and Social Sciences, Khon Kaen University, 123 Mittraphap Rd., Muang, Khon Kaen, 40002 Thailand

E-mail: korpul@kku.ac.th

ABSTRACT

This paper reports how self-generated online projects were integrated into an English language teaching (ELT) class at a Thai university and their impact on pre-service teachers' experience during the unexpected COVID-19 situation. A qualitative approach was used to describe the integration of self-generated online projects as final group projects and report the learners' opinions towards their online project-based learning. The participants were 58 pre-service English language teachers who took the Linguistics and Language Teaching course at a Thai university during the first semester of the 2020 academic year. The course initially required the students to organise an English teaching camp at a rural school after they had learned ELT theories and approaches throughout the semester. However, due to the COVID-19 spread, the learners' original project had to be shifted to creating online English teaching. The online projects were designed to be self-generated, encouraging learners to use their English teaching knowledge and skills to design online lessons for rural school students. The project-based multimedia learning approach (Simkins et al., 2002) was adopted to guide the self-generated projects. The learners' opinion towards integrating the online projects during the difficult situation was elicited using a reflection form and a small group interview. The findings reveal project integration procedures, the challenges the students faced, their ways of dealing with those challenges, and the advantages and disadvantages of the integration. The students used a variety of working strategies to collaborate their work. They admitted that the COVID-19 lockdown, project time limitations, and limited technology skills delayed their work. However, they believed that the online projects enhanced their teaching and digital skills, increased motivation as well as problem-solving and collaboration skills.

Keywords: project-based learning, online learning, pre-service English language teachers, Thai university, COVID-19

INTRODUCTION

The COVID-19 pandemic has caused immense educational panic in Thailand's English language teaching (ELT) contexts, since the first wave in January 2020 till now (August 2021, when this paper has been written). When the Ministry of Education ordered all schools and universities closed for lockdown measures, face-to-face classes had to be suddenly shifted into online mode. When the rise of technology rapidly became a dynamic form of communication and education, teachers and students struggled to adapt to this educational transformation, of course, with a lack of online pedagogical preparation. Early possibilities for online ELT emerging during that time included technology-based training and workshops, such as using Zoom, Google Meet, or Microsoft Team to virtually teach students, using Google classroom as a learning management system (LMS), and implementing e-learning into classrooms.

Apart from the technological tools, teaching approaches are also very important to facilitate English language teaching and learning. The teaching approaches integrated with technology, e.g., flipped classroom, blended learning, learning via online lessons in open educational resources (OER), have been employed (e.g., Kanoksilapatham, 2021; Kawinkoonlasate, 2020; Sukman & Mhunkongdee, 2021). During the pandemic, Thai ELT teachers have implemented technology in online language teaching and learning (e.g., Kanchai, 2021; Kawinkoonlasate, 2020; Sompakdee et al., 2021). Studies have shown that the increasing use of modern technology in the learning environment helps students learn better and links instructors' professional content, resources, and systems designed to help improve their online lessons (e.g., Mofareh, 2019).

However, many of the studies focused on using technology as a tool to enhance students' general English language ability via their online classes; the teachers usually controlled the lessons. When the teacher wants students to improve both their language skills, critical thinking, and problem-solving skills as well as content knowledge at the same time, a project-based learning approach integrated with the use of technology is usually recommended (e.g., Melvina et al., 2020; Yuliansyah & Ayu, 2021). Despite several previous studies focusing on online language learning in Thai contexts (e.g., Kanchai, 2021; Kawinkoonlasate, 2020; Sompakdee et al., 2021), there is a lack of research regarding the use of technology integrated with project-based learning. With the hope that such studies can help ELT students, to be called pre-service English language teachers from this point onwards, to develop their English language teaching pedagogy and English language skills simultaneously. This study, therefore, aims to bridge this theoretical and pedagogical gap.

LITERATURE REVIEW

Project-based Learning (PBL)

PBL has long been used by teachers as an effective method to increase active learning and engagement. PBL is rooted in the constructivism approach, highlighting projects

designed to stimulate learner autonomy, problem-solving skills, critical thinking skills, collaboration, and communication skills (e.g., Poonpon, 2011; Qisthi & Arifani, 2020; Stoller, 2013; Yimwilai, 2020).

With the disruptive education triggered by the COVID-19, the learning and teaching paradigm transformed from an onsite environment to remote teaching on online platforms (Li & Lalani, 2020). There is a growing body of literature regarding using PBL through online learning and its advantages (Melvina et al., 2020; Yuliansyah & Ayu, 2021). The merging of project-based learning and technology or multimedia has been valued as a powerful teaching method (Chen, 2019; Marwan, 2015; Özdamli, 2011; Rahmawati et al., 2020). It can enhance learners' language skills, increase engagement, promote autonomous learning, and enhance learners' technology skills (e.g., Kanoksilapatham, 2021; Melvina et al., 2020; Qisthi & Arifani, 2020; Thomas, 2017; Yimwilai, 2020). Among a number of studies emphasizing the synergy of project-based learning and technology, many highlighted project-based multimedia learning (PBML) as one effective way to enhance students' learning (e.g., Hasic, 2004; Khyzhniak et al., 2021; Simkins et al., 2002).

Project-based Multimedia Learning (PBML)

PBML is an approach developed from project-based learning, in which learners acquire new knowledge and skills in the course of designing, planning, and producing a multimedia product (Simkins et al., 2002). Learners' multimedia products can be technology-based presentations such as a computerized slide show, a Web site, or a video (e.g., Chen, 2019; Hasic, 2004; Khyzhniak et al., 2021). These products reflect key concepts learners have mastered and processes taught and are also a source of great pride for learners (Özdamli, 2011).

PBML has seven key dimensions (Simkins et al., 2002): core curriculum, real-world connection, extended timeframe, student decision-making, collaboration, assessment, and technology (see Figure 1). First, core curriculum refers to a clear set of learning goals drawn from the curriculum or set of standards in use. The PBML should address the basic knowledge and skills all learners are expected to acquire. Second, the PBML seeks to connect learners' work with the wider world in which students live. Third, a project is not a one-shot session. That is, it extends over a significant period of time, depending on learners' age and the nature of the project. Forth, decision-making is based on learners' clear rationale. Fifth, collaboration is defined as working together to accomplish a common intellectual purpose. Learners can work in pairs or groups. Whole-class collaborations are also possible. The goal is for each learner to get involved and contribute to the project. Next, assessment in the PBML is considered challenging as multimedia projects do not represent a complete picture of learning. Apart from the knowledge learners learn from doing the projects, they also learn other transferable skills such as problem-solving and working as a team. Thus, assessment plays three crucial roles as activities used to develop expectations, improve the media products, and compile and disseminate learning evidence.

Lastly, technology or multimedia is used in multimedia projects, and learners learn from their own products. As learners design and research their projects, they become multimedia content creators.
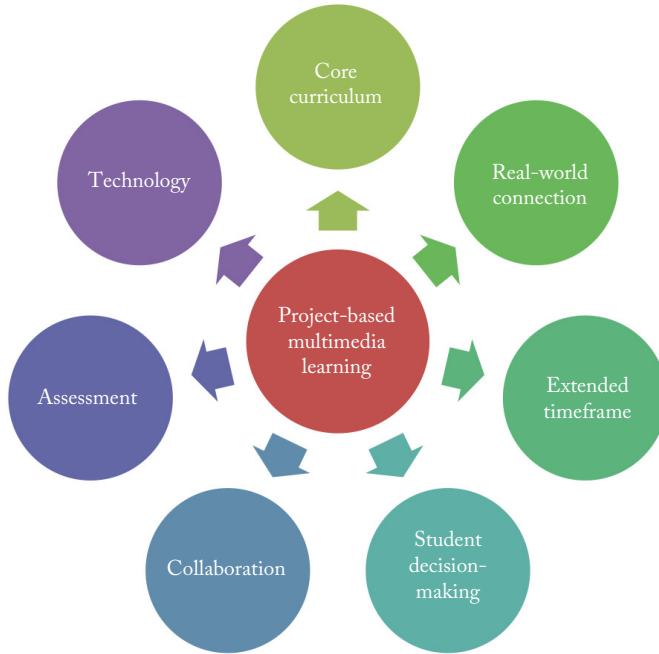

Figure 1. Seven key dimensions of project-based multimedia learning (Simkins et al., 2002)

A number of research studies value the benefits of PBML. Hasic (2004) used PBML via Stu's EduWeb or the intranet website designed to be owned by learners at his school. In this project, the learners were responsible for designing and creating webpages that they were interested in on the school's website. Their webpages were produced with high-quality content and presentation as the learners were motivated and proud to research information and introduce it on the school's website. The teacher's role was to monitor their pages to ensure the learners adhere to the school's website publishing guidelines. This multimedia project involved learners managing an important school educational resource responsibly and yielded positive values and pride over the years.

Recently, Khyzhniak et al. (2021) implemented PBML together with multiple intelligences theory at a primary school. Many projects for different types of multiple intelligence, such as reading a text combined with viewing illustrations (spatial type), listening to music about the plants under study (musical type), creating one's own videos about the process of planting and care of flowers (body-kinesthetic and naturalistic), were included in the implementation. The project work can increase interest and motivate individual learners to learn and engage in activities designed to meet each learner's

types of intelligence. Moreover, the project highlighted the teacher's roles as a project manager and facilitator when implementing PBML with their primary school learners. The results from both studies by Hasic (2004) and Khyzhniak et al. (2021) seemed to advocate the benefits of using PBML to increase learners' motivation, interest, engagement and pride. Apart from these previous studies, a few studies use PBML in English language teaching and learning.

Two of the similar studies (Chen, 2019; Marwan, 2015) emphasized project-based learning with technology (i.e., WebQuest) and information and communication technology (ICT) in EFL classrooms, respectively. In these studies, the PBML increased learners' planning and organisational skills. Moreover, it gives learners opportunities to analyse and synthesise complex content or data as well as to practice research and technical skills. It can also encourage students to learn how to present compelling information and apply academic subject matter to the real world. Finally, this approach is so motivational that it can highly engage learners, and this helps them to learn better.

The review of this previous research has shown that PBML contributes to the empowerment of both teachers and learners in the educational process. It also advocates the synergy of technology-enhanced learning with project-based learning to optimise the learners' successful learning. However, the studies seem to focus on school contexts where the learners can integrate knowledge and skills. To date, limited attention has been focused on studies implementing PBML in the English language teaching field in higher education. Especially in the present context where technology has disrupted English language education, ELT studies focusing on the power of technology or multimedia in teaching the English language are needed. The present study, thus, used the PBML approach in an ELT course to demonstrate the synergy of technology and project-based learning.

THE PURPOSE OF THE STUDY

The present study explores how self-generated online projects were integrated into an ELT class at a Thai university and examines their impact on pre-service teachers' learning experience during the unexpected COVID-19 situation.

RESEARCH QUESTIONS

The study was guided by the following research questions:

1. How are self-generated online projects integrated into an ELT class at a Thai university during the COVID-19 pandemic?

2. What are pre-service teachers' opinions towards the integration of self-generated online projects into an ELT class at a Thai university during the COVID-19 pandemic?

THE SIGNIFICANCE OF THE STUDY

This paper is one of the studies during the pandemic in the Thai tertiary context that focuses on the lessons learned from integrating self-generated online projects in an ELT undergraduate class. It is expected to be useful for English language teachers to design and integrate project-based multimedia learning in their courses and prepare their students for the massive shift to online learning. The paper also uncovered obstacles, valuable strategies, and solutions used by the students in designing and completing their self-generated online projects during the sudden and unplanned educational transformation.

METHODOLOGY

Research Design

This study used a qualitative approach to explore how self-generated online projects were designed, created, and integrated by Thai pre-service English language teachers who had not been prepared for such rapid change but were willing to create their own online teaching projects. The opinion towards the integration of self-generated online projects into an ELT class during the sudden and unplanned educational transformation was also qualitatively investigated by asking the students to fill out an individual reflection form and reflecting their opinions in a group interview after they completed the projects.

Participants

The study used convenience sampling to recruit participants who were in the researcher's class during the pandemic. The total of 58 pre-service English language teachers took the Linguistics and Language Teaching course during the first semester of the 2020 academic year. All (16 males, 42 females) were in their third year.

An Overview of the Linguistics and Language Teaching Course and a Self-generated Online Project

The Linguistics and Language Teaching course was offered as an elective course for third and fourth-year students every second semester at a Thai university. This three-credit course aims the pre-service teachers to (1) gain an understanding of learning theory as applied to English language teaching, (2) develop teaching skills and practical experience in ELT, (3) work cooperatively with classmates on lesson planning, material development, and (4) design language, classroom-based tests. After they have learned ELT theories and approaches throughout the semester, the course usually requires the pre-service teachers to do a final class project as an English teaching camp at a rural school. While planning our English teaching camp, the COVID-19 situation worsened, causing a sudden lockdown in Thailand. We agreed to continue the final language teaching project but on an online platform. The pre-service teachers were required to work in groups to create online English

lessons for secondary school students. Since it was a sudden shift from face-to-face to online classes and consultations, the online projects were designed to be self-generated.

Self-generated online projects were rooted in pre-service teachers' brainstorming to compensate for the original English camp for secondary school students. The projects were aimed to encourage the pre-service teachers to use their English teaching knowledge and skills to design online lessons for rural school students. The teachers worked in groups of four or five. There was a total of 12 groups, resulting in 12 online lessons by the end of the course. To guide the online projects, the project-based multimedia learning approach (Simkins et al., 2002) was used. The teachers were required to consider the seven key concepts when planning, designing and creating their online instructional media and lessons. That is, the pre-service teachers worked as a group (collaboration) to plan and design an online English lesson (project objectives, decision making, technology) and other materials, such as pretest and post-test (assessment), for secondary school students (real-world connection) and finish the project within six weeks (extended time frame).

Instruments

An individual reflection form and a small group interview were used as instruments to explore an integration procedure and elicit the students' opinions towards the integration of the projects. In particular, the questions used in both instruments reflected four aspects: collaboration strategies, challenges or obstacles encountered during the project, advantages, and disadvantages of using the self-generated online project in the language teaching course. The questions in the reflection form and a small group interview were validated by an English language teacher who has experienced teaching English at the tertiary level for more than fifteen years. Both English and Thai were used in the questions. The learners mostly used English to answer the questions.

Data Collection and Data Analysis

The data collection started amid the first wave of the COVID-19 pandemic in Thailand in 2020. The semester, at the university where the study took place, started in December 2019, at the same time as the virus started spreading in Thailand. The teaching and learning at the beginning of the semester was in the form of face-to-face classrooms, covering ELT approaches and other important concepts (e.g., lesson planning, material design, and development). Since the semester was amid the COVID-19 situation, our original project, an English camp for students at secondary schools, had to be canceled. Instead, all the pre-service teachers agreed to create online lessons for secondary school students to compensate for the camp. The data collection started after the pre-service teachers agreed on creating self-generated online projects. The data was collected throughout the six weeks of the project's operation. The individual project reflection and the group interview were used to elicit students' reflections and opinions about the project implementation. The participants were asked to form their group to do the project. Each participant was asked to write an ongoing reflection on his/her working

procedures and challenges. After finishing the project, each working group was interviewed by the researcher. The interview data were recorded and later transcribed. These qualitative data were analysed using content analysis (Creswell, 2013). Two coders, including the researcher, read all the data and did a systematic coded emerging theme. The two coders had an online meeting and discussed the coded data, and their percent agreement was 87%.

RESULTS

The results of the study reveal the pre-service English teachers' procedures in completing their online projects and opinions about the project integration in the ELT class. Since the researcher intended to keep the original, authentic messages drawn from the participants, some grammatical errors may be found in the quoted opinions.

The Integration of Self-generated Online Projects into the ELT Class

Based on the analysis of the pre-service teachers' reflections and group interviews, this section reports (a) how self-generated online projects were integrated into the course and (b) challenges encountered and working strategies used by the students to complete the project during the COVID-19 outbreak.

Integration procedures of the self-generated online projects

The results show that there are six steps in the integration procedure (Figure 2). The procedure started from the teachers' decision to change the original English camp project to the online lesson project.

Step 1: The first step of the project was a brainstorming session so that they can see the same picture of the final English language teaching project. They discussed the effects of the COVID-19 situation on the teaching projects and how they can adjust their projects to fit the situation. By the end of the brainstorming, they agreed that they would work in groups of five, and there were twelve groups in total. Every group project would have the same components in their online lesion because all lessons were aimed at being disseminated to secondary school students via the university's online platform. Each lesson was then to include eight components: (1) an introduction video to the lesson, (2) a pretest with answer keys, (3) instructional video 1, (4) Exercise 1, (5) instructional video 2, (6) Exercise 2, (7) a review video, and (8) a post-test with answer keys.

Step 2: Since the pre-service teachers had no experience of doing an ELT multimedia video, they requested to be equipped, in a three-hour training session, with practical knowledge about designing an online lesson and using multimedia to create the lesson. In the training session, with an expert on educational technology, the teachers were guided with six easy steps on how to: (1) choose a teaching topic based on CEFR A2

level for secondary school students in Thailand (Office of Basic Education Commission, 2014), (2) design an online lesson plan, (3) write a storyboard, (4) choose appropriate multimedia tools, (5) develop materials, and (6) record and edit their video.
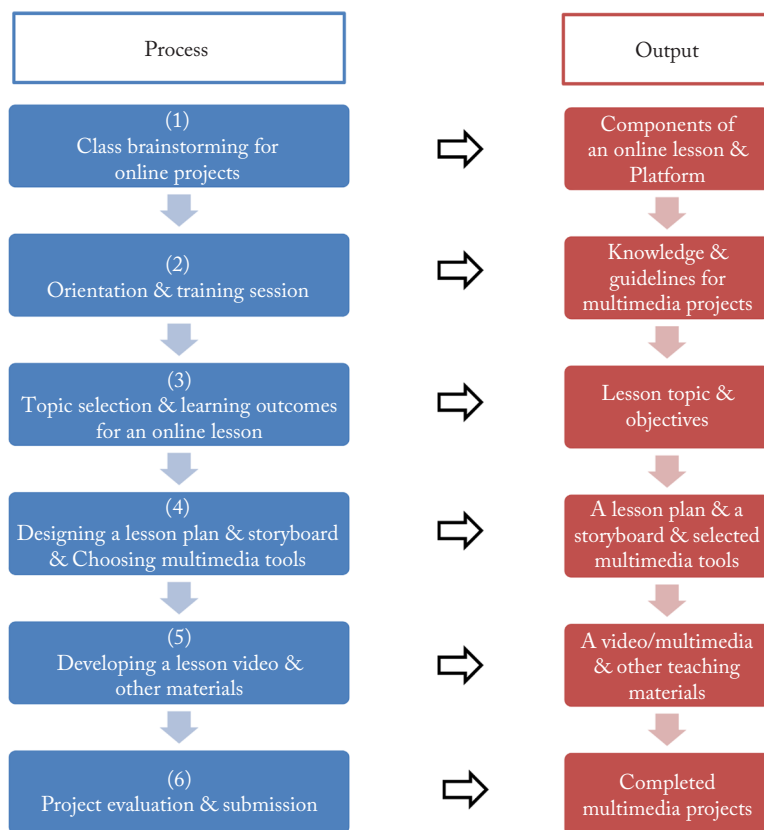
Process		Output
(1) Class brainstorming for online projects	⇨	Components of an online lesson & Platform
(2) Orientation & training session	⇨	Knowledge & guidelines for multimedia projects
(3) Topic selection & learning outcomes for an online lesson	⇨	Lesson topic & objectives
(4) Designing a lesson plan & storyboard & Choosing multimedia tools	⇨	A lesson plan & a storyboard & selected multimedia tools
(5) Developing a lesson video & other materials	⇨	A video/multimedia & other teaching materials
(6) Project evaluation & submission	⇨	Completed multimedia projects

Figure 2. Integration procedure of self-generated online projects

Step 3: After the training session, each group of the pre-service teachers started thinking about a lesson topic and its learning outcomes that they would like to use for their teaching project. The topic had to be at CEFR A2 level as the Ministry required secondary school students of Education to meet this proficiency level (Office of Basic Education Commission, 2014). They proposed the selected topic with its learning outcomes to be approved by the teacher. The topics, content, and skills included in the lesson were shown in Table 1. Group 1, for example, chose to teach names of animals and adjectives to describe animals, while Group 6 focused on teaching vocabulary about tourist attractions/tourism and how to make a plan for a trip using the future tense.

Table 1. Topics and focused content and skills in self-generated online projects

Group/Lesson topic	Focused content/skills
1. Zoo	• Names of animals • Adjectives to describe animals • Comparative and superlative forms of adjectives
2. Weather	• Weather vocabulary • Grammar (If clause Type 1)
3. Festival	• Vocabulary about festivals • Prepositions
4. Asking and giving directions	• Vocabulary about places and directions in the city • Giving direction dialogues
5. Hotel	• Hotel-related vocabulary • Conversation about room reservation, food ordering, and tourist attraction recommendation
6. Let's travel	• Vocabulary and phrases about travelling • Making a plan (Future simple tense & Future continuous)
7. Table manners	• Vocabulary about table manners • Reading for main idea
8. Cooking	• Cooking vocabulary • How to form simple sentences
9. Supermarket shopping	• Countable and uncountable nouns • Determiners (this, that, these, those) • Quantifiers (how much, how many)
10. Online shopping	• Vocabulary about online shopping • Writing an email as a customer and as a seller
11. Get well soon	• Vocabulary about illnesses • Phrases and sentences used in illness-related expressions
12. Superstitions	• Vocabulary about superstition and how to use them in sentences • Superstitious culture in different countries • Grammar: Adjective order

Step 4: Each group then designed a lesson plan and a storyboard for their lesson. The pre-service teachers were allowed to use both Thai and English in their storyboard to avoid a barrier of creativity and communication while working collaboratively. An example of the storyboard is illustrated in Figure 3. At the same time, they had to choose multimedia tools to be used to create teaching videos and other materials. At this stage, each group had to consult their work with the teacher as well.

Step 5: Once their lesson plan and storyboard were approved, the pre-service teachers started their multimedia production. Each group produced its multimedia products differently, depending on members' ability and time management. Mainly every group had four videos: an instruction video (no more than one minute long), a 3–7-minute instruction video for part 1, a 3–7-minute instruction video for part 2, and a two-minute lesson review video. In each video, the teachers also thought about words to be presented, ways to present them, music to be added to arouse learners, as well as editing the video.
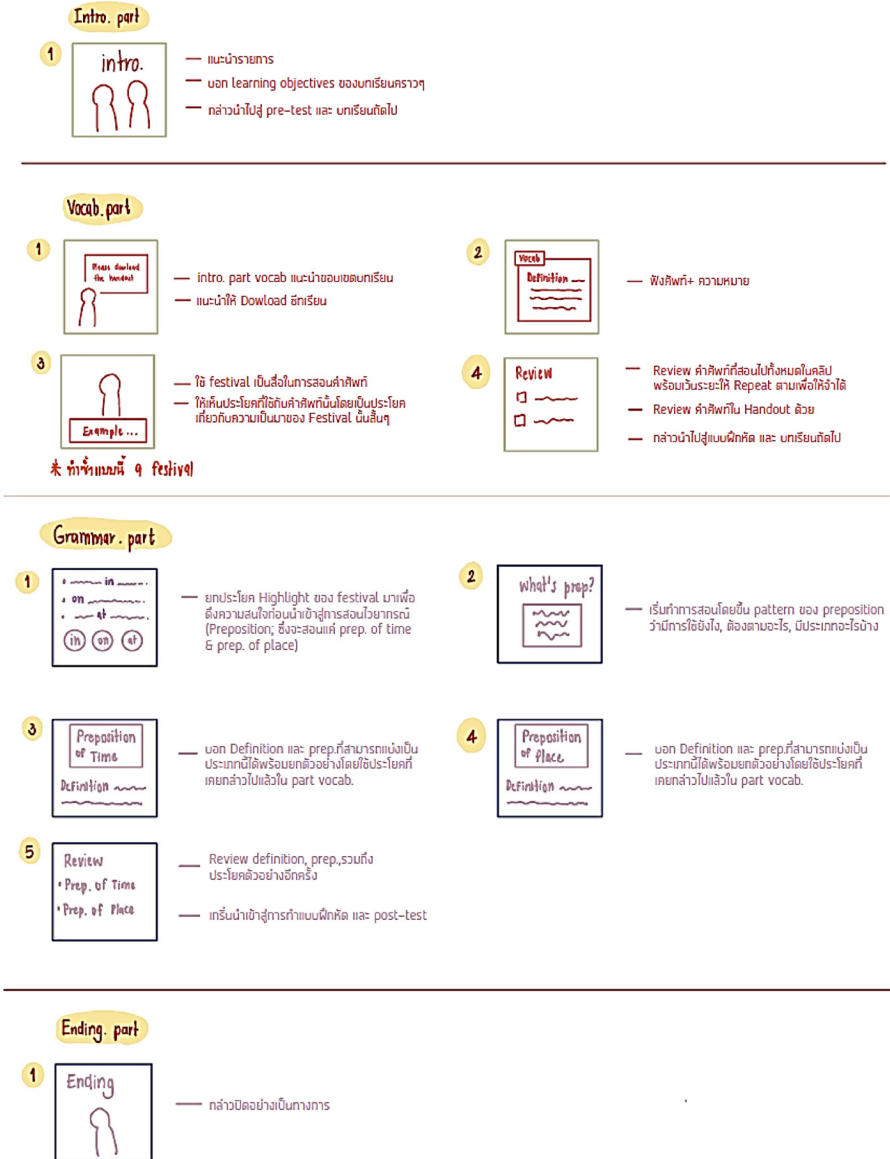
Intro. part

1   intro.
— แนะนำรายการ
— บอก learning objectives ของบทเรียนคราวๆ
— กล่าวนำไปสู่ pre-test และ บทเรียนถัดไป

Vocab. part

1   Please dowload the handout
— intro. part vocab และนำของบทเรียน
— แนะนำให้ Dowload อีกเรียน

2   Vocab Definition
— ฟังศัพท์+ ความหมาย

3   Example …
— ใช้ festival เป็นสื่อในการสอนคำศัพท์
— ให้เห็นประโยคที่ใช้กับคำศัพท์นั้นโดยเป็นประโยคเกี่ยวกับความเป็นมาของ Festival นั้นสั้นๆ
※ ทำซ้ำแบบนี้ 4 festival

4   Review
— Review คำศัพท์ที่สอนไปทั้งหมดในคลิป พร้อมเว้นระยะให้ Repeat ตามเพื่อให้จำได้
— Review คำศัพท์ใน Handout ด้วย
— กล่าวนำไปสู่แบบฝึกหัด และ บทเรียนถัดไป

Grammar. part

1   (in on at)
— ยกประโยค Highlight ของ festival มาเพื่อดึงความสนใจก่อนนำเข้าสู่การสอนไวยากรณ์ (Preposition; ซึ่งจะสอนแค่ prep. of time & prep. of place)

2   what's prep?
— เริ่มทำการสอนโดยขึ้น pattern ของ preposition ว่ามีการใช้ยังไง, ต้องตามอะไร, มีประเภทอะไรบ้าง

3   Preposition of Time / Definition
— บอก Definition และ prep.ที่สามารถแบ่งเป็นประเภทนี้ได้พร้อมยกตัวอย่างโดยใช้ประโยคที่เคยกล่าวไปแล้วใน part vocab.

4   Preposition of Place / Definition
— บอก Definition และ prep.ที่สามารถแบ่งเป็นประเภทนี้ได้พร้อมยกตัวอย่างโดยใช้ประโยคที่เคยกล่าวไปแล้วใน part vocab.

5   Review • Prep. of Time • Prep. of Place
— Review definition, prep.,รวมถึงประโยคตัวอย่างอีกครั้ง
— เริ่มนำเข้าสู่การทำแบบฝึกหัด และ post-test

Ending. part

1   Ending
— กล่าวปิดอย่างเป็นทางการ

Figure 3. An example of a storyboard by Group 3 "Festival"

The results show that the videos were designed and recorded in four techniques (Figures 4–7). The first technique shows group members acting as teachers or as special characters in role plays in designed settings, presenting their instructional content. In this kind of video, the backgrounds could be inserted pictures, motion pictures, or real places (e.g., studio, classroom). The multimedia products for Group 1, for example,

included a lesson introduction video recorded in a studio and two instructional videos teaching vocabulary and grammar, with zoo motion scene backgrounds (Figure 4). The multimedia tools used to record and edit videos included phone cameras and video editors (e.g., the KineMaster application). The second video production technique was animations videos, using cartoon characters with inserted voices of members to present the instructional content. Groups 2 (Weather), 3 (Festival), and 4 (Asking and Giving Directions) used this technique to produce their multimedia videos (Figure 5). The third technique presented a mix of live videos and animation videos. For instance, Group 3 produced live videos and animations videos, teaching language about festivals, by using Powtoon (a free animation maker program) (Figure 6). The final technique was in the form of PowerPoint or Canva screen recording with inserted voices of members. Group 11, for example, presented their instructional videos on vocabulary about illnesses and phrases and sentences used in illness-related expressions by using this technique (Figure 7).

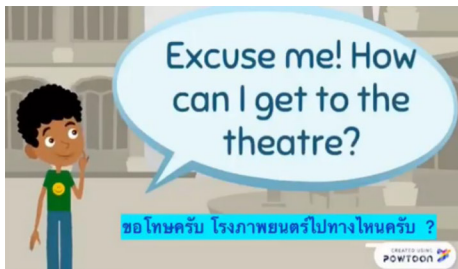**Figure 4.** Live videos used by Group 1, "Zoo"

Figure 5. Animation videos used by Group 4, "Asking for and Giving Directions"
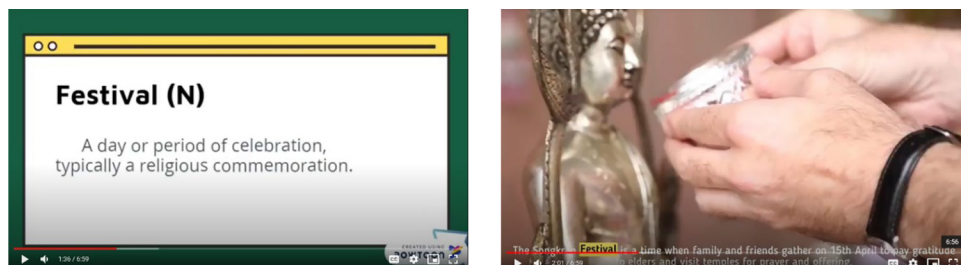
Figure 6. A mix of live and animation videos used by Group 3, "Festival"
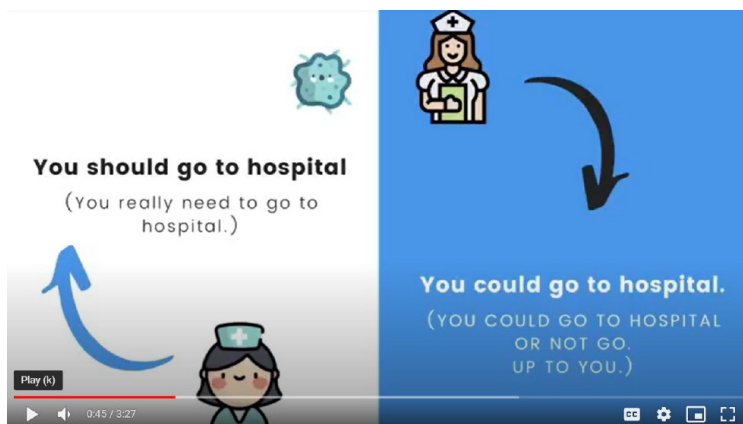

Figure 7. Screen recording videos used by Group 11, "Get Well Soon"

Step 6: After all the teaching materials were developed, each group was asked to evaluate their own materials and adjust them, when necessary, before submitting the project to the teacher. Throughout the integration procedures, the six weeks of the projects, weekly online-consultation sessions between the teacher and each group of students were arranged. In the sessions, the pre-service teachers discussed their progress, obstacles or problems they would

Pre-service Teachers' Opinions about the Integration of Self-generated Online Projects into the ELT Class

The pre-service teachers were asked to reflect on their opinions towards challenges they found as well as advantages they earned from creating the online projects. The content analysis showed that the pre-service teachers revealed both negative and positive feedback on the integration of the projects. The subsequent part reports challenges and drawbacks the pre-service teachers encountered first, followed by advantages found in the integration of the projects.

Challenges and drawbacks of the integration of the self-generated online projects into the ELT class

The reflective journals and group interviews revealed that during working on the online project, the pre-service teachers had encountered a number of challenges. Table 2 illustrates the challenges and ways they used to overcome these difficulties in working on their online projects.

Table 2. Challenges and ways to overcome the challenges during the project production

Challenges	Ways to overcome them
Unexpected planning changes	Adjusted activities and chose other options suddenly to match their lesson objectives and plan.
Multimedia knowledge and skill limitations	Learned by themselves. Asked for technicians' help. Used simple tools that matched their technology skills.
Team communication challenges	Used every communication channel to deal with them (e.g., Line, Zoom, Phone, Shared folder).
Time management problems	Allocated jobs and assembled later.
Creativity limitation	Used existing programs with great designs and templates, e.g., Powtoon or Canva.

The first challenge related to unexpected planning changes. The pre-service teachers admitted that it was difficult for them to do this online teaching project as they had no experience before. They agreed that designing a good English lesson was challenging and even more challenging to design and deliver the lesson via videos. Every group of students had to change their working plans. Since the lockdown was officially announced after the students had finished planning, they had to adjust their plans to fit in the situation. Many of them changed their group video-recording plans to creating animation instead as each of them had to work distantly. To cope with this challenge, the pre-service teachers adjusted activities and chose other options that seemed to match their lesson objectives and plan. The examples of their comments are as follows.

> …we cannot work together so our plan has changed a lot. [S8]

> …we change some plans such as change the situation video from the original record in person into voice over with animation… [S13]

> …At first, we aimed to record the video by using smart tv at IC building to teach because we think it's more interesting than making just video and narration. We planned to do a role play to make learners see the real situation. We had recorded for 1/3 of the lesson. However, we cannot go out to record video anymore because COVID situation, so we have to change teaching method to just showing the lesson and narrate it. [S23]

Second, the pre-service teachers admitted that they did not have enough knowledge and skills to use multimedia and technology to create online lessons. This limitation caused them to spend much time learning how to use technology devices or online programs (e.g., Powtoon, Google form) in order to create their online lessons. They also found that video editing is a very hard and tiring job. This job not only needs some special skills, but it is also time-consuming. They, however, overcome these obstacles by trying to learn by themselves, asking for technicians' help, or using simple tools that matched their technology skills. Examples of these opinions are as follows.

> …we need to use the high-quality equipment, … we cannot borrow equipment from the (IT) staff. [S12]

> …we had no idea how to use a camera and other devices, so we asked some official officers to help us. [S30]

> …our computers and the programs are not good enough to do the animated teaching videos, so it takes a large amount of time to do that. [S31]

> The basic knowledge about the video is not enough. We watched how to edit a video from YouTube. [S47]

> …in editing video, it can be one or two members in the group who can edit, so it quite hard and tired. [S12]

> The only obstacle we had is video editing. [S21]

> …my team have never made an online lesson before. Thus, we spent a lot of time learning how to editing video to make the video interesting. [S51]

Moreover, the pre-service teachers agreed that it was very hard for them to communicate with their team members to run the project during the lockdown. Since they cannot go out, online communication was the only way to communicate, and this was not convenient for them. Some students also thought this can cause misunderstanding about the work and can slow their project progress. They tried to use different channels, e.g., Line, Zoom, Phone, to communicate to each together. The following are examples of this kind of comments.

> We cannot meet together, so it's very hard to explain something. [S9]

> Doing a group work through online systems is always hard; the team members cannot communicate immediately, so the work is done slowly. [S33]

> …we did not make an appointment to meet in person since the COVID 19 outbreak, so it made it complicated to brief our duties for each part of the work. [S45]

> …it is challenging to arrange and organise the work without misunderstanding. It is hard to communicate without having an outline picture presenting to everyone, so the members tend to not see the whole picture of the work. [S49]

The pre-service teachers also thought that some of them had management problems. Some groups could not find the time to meet as everyone had their own responsibilities. However, they thought this depended on personal skills in time management. So they decided to allocate jobs for each memeber and assembled them later. The examples are shown below.

> …The obstacle of making this final project for our group is the time schedule of our members….since we have our own personal works…. [S13]

> …it would be about arranging a time for meeting as we have a different personal schedule. [S37]

> …we didn't have much time to share opinion with other members due to the assignments that each member had from other courses too. [S41]

Finally, the pre-service teachers believed that the Covid-19 situation limited their online lesson creativity. They then used existing programs with great designs and templates, e.g., Powtoon or Canva, to help them create the lessons.

> …the creativity in making a lesson video is restricted due to the pandemic, so the video is not showing full potential of students. [S25]

> And we planned a lot of creative and interesting teaching that it must be done by filming. Unfortunately, we cannot do any part of our plan. [S33]

Advantages of the integration of the self-generated online projects into the ELT class

Despite the challenges of the project integration, the pre-service teachers admitted that after completing the projects, they had realised several benefits of creating their online projects. Most believed that the self-generated online projects increased their motivation, enhanced their teaching and digital skills, and improved their transferable skills, such as project planning and monitoring, problem-solving, creativity and collaboration.

The pre-service teachers believed that it was good and sensible to change the original English camp project to be the online one for secondary school students during the COVID-19 pandemic. When they thought about how useful their online lessons would be for students at secondary school, they were motivated to create this online project no matter how hard it was. The teachers positively believed that their online lessons would help secondary school students to learn better.

> Hopefully, we wish students and teachers enjoy our teaching materials. [S20]

> …we want them (the secondary school students) to learn the lesson without the feeling of learning something too academic. …the feeling of joy and excitement in the house (in the video) will encourage them to learn better. [S50]

The pre-service teachers also admitted that they had learned how to plan a project and monitor their work to accomplish their project goal.

> …our plan has changed a lot. So we decided to adjust our plan by dividing into two groups, doing different jobs and having a meeting once a week. [S8]

Apart from that, doing the online projects helped them build their team spirit and cooperative skills. Working with their teammates increased their problem-solving skills. Some students also admitted that they had learned a lot from overcoming problems during the project work.

> …there is not much obstacle for my group as we plan together and separate parts that each member will take, and the members are very operated. [S37]

> …everything goes smoothly. Besides, I really appreciate my group because everyone helps each other and also shares their ideas. So, the results are quite great for me. [S22]

> …how difficult the contexts should be if we are going to teach the Matthayom (secondary school) students, I considered it as a part of the processes. So, it is not an obstacle. [S4]

> …the obstacles become the lesson for me as well. [S35]

DISCUSSION

This qualitative study uncovers how self-generated projects were integrated into the Linguistics and English Language Teaching course at a Thai university amid the COVID-19 pandemic and what the pre-service teachers thought about creating their projects. In addition, the present study revealed the working procedure used by these teachers during the project production as well as the advantages and challenges found in integrating the projects.

The six steps of self-generated project integration were the results of taking into accounts the seven key dimensions of project-based multimedia learning (Simkins et al., 2002): core curriculum, real-world connection, extended timeframe, student decision-making, collaboration, assessment, and technology. All the self-generated projects were designed to include a clear set of learning goals of the ELT course (core curriculum). That is, the pre-service teachers were able to apply the ELT theories and approaches learned (e.g., teaching vocabulary, teaching grammar, and material design) into the real-life world (real-world connection). These teachers worked in groups of five (collaboration) since the first step—brainstorming and planning—until the last step—project evaluation— within the final six weeks of the semester (extended timeframe). They had the freedom to design and produce their multimedia products (technology) based on the consensus among group members. At every of six steps, the pre-service teachers made their own decisions on components of the teaching projects (Step 1), training session (Step 2), topic and content selection (Step 3), lesson planning and design, and storyboard creation (Step 4), designing and producing videos (Step 5), and project self-evaluation (Step 6). Their working procedures reflected the decision-making dimension in project-based multimedia learning. Their projects were also continually evaluated (assessment) to monitor project progress, adjust the media products to fit the changing situations, and final self-assessment of their own projects. These main characteristics of the project-based multimedia learning enabled the pre-service teachers to be ELT content creators as well as multimedia designers (Hasic, 2004).

Apart from the practical ways of project integration, the pre-service teachers agreed that the online ELT projects benefited them as ELT teachers in the COVID-19 pandemic. The pre-service teachers believed that the online projects increased their 21st century skills, such as problem-solving, creativity, collaboration skills. More importantly, the projects helped the students to apply their teaching knowledge and digital skills to real-world practice (Chen, 2019; Marwan, 2015). This reflects that the students realised the significance of these skills for them as future teachers. It is a good way to develop these pre-service teachers to be qualified English language teachers who have the technology, pedagogy and content knowledge (Poonpon, 2021; Thomas, 2017) and are capable of being creative, collaborative, critical, and problem-solving oriented (Ananiadou & Claro, 2009).

However, the pre-service teachers admitted that they had a difficult time doing the group projects during this challenging situation (Sompakdee et al., 2021; Yuliansyah & Ayu, 2021). Obstacles encountered during the project included a sudden change of learning and teaching modes from onsite to being 100% online. This was a shock for them. They also believed that their limited technology and multimedia skills, inconvenient online communication, project time limitations, and inexperienced management skills delayed their work in the COVID-19 lockdown.

The results of the study call for training these pre-service teachers to successfully use technology for educational purposes (Kawinkoonlasate, 2020). This kind of need is also in line with Poonpon's study (2021), focusing on the professional development needs of 4,220 in-service ELT teachers in Thailand and revealing that the teachers' technological needs are very significant during the Covid-19 outbreak. Especially in this case, these pre-service English language teachers should be trained to use different kinds of multimedia in designing and producing instructional materials for their students (Oeamoum & Sriwichai, 2020). Even though the pre-service teachers in the current study seemed to be the younger generation, they may learn how to use technological applications and social media platforms (e.g., Facebook, Line, Instagram) in their daily lives or in '*learning*' language. However, ELT teachers still lacked digital skills to create their online or multimedia lessons (Barron et al., 2021; Li & Lalani, 2020). It is urgent that they are equipped with technological knowledge, and its application to remote online classes as the new normal in the future ELT will be far more technology-driven (Anderson et al., 2021).

CONCLUSION

This qualitative study reports the lessons learned from integrating self-generated online projects into an English language teaching (ELT) class at a Thai university and their impact on pre-service teachers' learning experience during the COVID-19 pandemic. The paper also uncovered working procedure, advantages and challenges reported by the pre-service teachers in designing and completing their self-generated online projects. The study provides important theoretical and pedagogical implications. First, it is expected to be useful for English language teachers to use project-based multimedia learning in their courses. The integration procedure found in the study may guide the teachers to prepare pre-service teachers for the massive shift to online teaching. Second, the present study suggests that technology or multimedia knowledge and skills should be included in ELT courses as it is important for pre-service English teachers to adjust themselves for the technology-oriented society and classrooms. The study, however, has some limitations. First, it only relied on qualitative data. Future research should consider a mixed-method approach for data triangulation. Moreover, the study was conducted during the sudden and unexpected educational transformation and in a short and quick-thinking period, the data elicited from the pre-service teachers may not reflect all aspects of the project integration and all opinions regarding the end products. Future research

should be designed to gain this data more thoroughly in a more reasonable time period. Finally, the generalisability of the study is limited as the study was conducted using convenience sample with a group of pre-service English language teachers during the unusual academic environment.

REFERENCES

Ananiadou, K., & Claro, M. (2009). 21st century skills and competences for new millennium learners in OECD countries. *OECD Education Working Papers,* No. 41*,* OECD Publishing, Paris. https://doi.org/10.1787/218525261154

Anderson, J., Rainie, L., & Vogels, E. A. (2021, February 18). *Experts say the 'new normal' in 2025 will be far more tech-driven, presenting more big challenges*. Pew Research Centre. https://www.pewresearch.org/internet/2021/02/18/experts-say-the-new-normal-in-2025 -will-be-far-more-tech-driven-presenting-more-big-challenges/

Barron, M., Cobo, C., Munoz-Najar, A., & Ciarrusta, I. S. (2021). The changing role of teachers and technologies amidst the COVID 19 pandemic: Key findings from a cross-country study. *Worldbank.* https://blogs.worldbank.org/education/changing-role-teachers-and -technologies-amidst-covid-19-pandemic-key-findings-cross

Chen, J. C. (2019). Designing online project-based learning instruction for EFL learners: A WebQuest approach. *MEXTESOL Journal*, *43*(2), 1–7.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches.* Sage.

Hasic, S. (2004). *Project based multimedia learning using a student-centred Intranet.* Stu's EduWeb! https://stuhasic.com/eduweb/

Kanchai, T. (2021). EFL teachers' ICT literacy acquisition to online instruction during COVID-19. *LEARN Journal: Language Education and Acquisition Research Network*, *14*(2), 282–312.

Kanoksilapatham, B. (2021). OER as language online lessons to enhance Thai university students' English language skills in the COVID-19 pandemic era. *3L: Language, Linguistics, Literature® The Southeast Asian Journal of English Language Studies*, *27*(2), 130–143. http://doi.org/10.17576/3L-2021-2702-10

Kawinkoonlasate, P. (2020). Online language learning for Thai EFL learners: An analysis of effective alternative learning methods in response to the Covid-19 outbreak. *English Language Teaching*, *13*(12), 15–26. https://doi.org/10.5539/elt.v13n12p15

Khyzhniak, I., Tsybulko, L., Viktorenko, I., & Mohyliova, N. (2021). Implementing the theory of multiple intelligences into project-based multimedia learning at primary school. *Information Technologies and Learning Tools*, *82*(2), 18–31. https://doi.org/10.33407/itlt. v82i2.4326

Li, C., & Lalani, F. (2020, April 29). *The COVID-19 pandemic has changed education forever. This is how*. World Economic Forum. https://www.weforum.org/agenda/2020/04/ coronaviruseducation-global-covid19-online-digital-learning/

Marwan, A. (2015). Empowering English through project-based learning with ICT. *TOJET: The Turkish Online Journal of Educational Technology*, *14*(4), 28–37.

Melvina, M., Lengkanawati, N., & Wirza, Y. (2020). EFL leaners' view on online learning implementation during Covid-19 outbreaks. *Advances in Social Science, Education and Humanities Research*, *513*, 351–357. https://doi.org/10.2991/assehr.k.201230.130

Mofareh, A. A. (2019). The use of technology in English language teaching. *Frontiers in Education Technology*, *2*(3), 168–180. https://doi.org/10.22158/fet.v2n3p168

Oeamoum, N., & Sriwichai, C. (2020). Problems and needs in English language teaching from the viewpoints of pre-service English teachers in Thailand. *Asian Journal of Education and Training*, *6*(4), 592–601. https://doi.org/10.20448/journal.522.2020.64.592.601

Office of Basic Education Commission, Ministry of Education. (2014). คู่มือการจัดการเรียนการสอนภาษาอังกฤษ แนวใหม่ตามกรอบมาตรฐานความสามารถทางภาษาอังกฤษที่เป็นสากล [*Guidelines for designing English language teaching and learning based on The Common European Framework of Reference for Languages (CEFR)*]. Bangkok, Thailand: Office of Basic Education Commission.

Özdamli, F. (2011). The experiences of teacher candidates in developing instructional multimedia materials in project-based learning. *Procedia Social and Behavioral Sciences*, *15*, 3810–3820. https://doi.org/10.1016/j.sbspro.2011.04.378

Poonpon, K. (2011). Enhancing English skills through project-based learning. *The English Teacher*, *XL*, 1–10.

Poonpon, K. (2021). Professional development needs of in-service English language teachers in Thailand. *ThaiTESOL Journal*, *34*(2), 1–25.

Qisthi, N., & Arifani, Y. (2020). The application of project-based learning via Instagram to improve EFL students' speaking skill. *Proceedings of the Borneo International Conference on Education and Social Sciences (BICESS)*, *Indonesia*, *1*, 201–209. https://doi.org/10.5220/0009018802010209

Rahmawati, A., Suryani, N., Akhyar, M., & Sukarmin. (2020). *Technology-integrated project-based learning for preservice teacher education: A system literature review*. *Open Engineering*, *10*(1), 620–629. https://doi.org/10.1515/eng-2020-0069

Simkins, M., Cole, K., Tavalin, F., & Means, B. (2002). *Increasing student learning through multimedia projects*. Association for Supervision and Curriculum Development (ASCD).

Sompakdee, P., Chompurach, W., Thanamaimas, W., & Kotmungkun, S. (2021). Applying the matrix model in an English for presentation online class during COVID-19 pandemic: A case study of an undergraduate class in Thailand. *English Language Teaching*, *14*(9), 12–23. https://doi.org/10.5539/elt.v14n9p12

Stoller, F. (2013). Establishing a theoretical foundation for project-based learning in second and foreign language contexts. In G. H. Beckett, & P. C. Miller (Eds.), *Project-based second and foreign language education: Past, present, and future* (pp. 19–40). Information Age Publishing Inc.

Sukman, K., & Mhunkongdee, T. (2021). Thai EFL learners' voices on learning English online during the COVID-19 pandemic. *International Journal of English Language Teaching*, *9*(2), 1–9. https://doi.org/10.2139/ssrn.3824069

Thomas, M. (2017). *Project-based language learning with technology: Learner collaboration in an EFL classroom in Japan*. Routledge. https://doi.org/10.4324/9781315225418

Yimwilai, S. (2020). The effects of project-based learning in an EFL classroom. *Journal of Liberal Arts, Maejo University*, *8*(2), 214–232.

Yuliansyah, A. & Ayu, M. (2021). The implementation of project-based assignment in online learning during Covid-19. *Journal of English Language Teaching and Learning*, *2*(1), 32–38.