

## **The Use of Facebook in a TEFL Program Based on the TPACK Framework**

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### **Abstract**

Facebook is one of the networking sites and platforms that has potential for language teaching and learning in the 21<sup>st</sup> century. Underpinned by the Technological Pedagogical and Content Knowledge (TPACK) framework, this study aims to integrate the use of Facebook into a Teaching English as a Foreign Language (TEFL) program in order to promote students' goals of English language literacy, pedagogical knowledge, and ICT skills. Through a mixed-method approach, the data was obtained from questionnaire, focus-group interviews, and individual semi-structured interviews. This study employed the TPACK framework with Facebook to measure Thai pre-service EFL teachers through a survey. To garner their views and opinions, focus-group and semi-structured interviews were conducted with selected pre-service EFL teachers and their teacher trainers, accordingly. The findings reveal that, on average, the Thai pre-service EFL teachers were able to conduct TEFL classes using Facebook at a high level; however they required supplementary skills for online teaching from their teacher trainers. Most of the teacher trainers were unable to provide such skills because they rarely used Facebook as an educational tool. A formal online training plan to supplement pedagogical skills appears unachievable at this time. Facebook is thus considered as a potentially useful means for teacher-student interactions and sociocultural interchange aspects of TEFL lessons among pre-service EFL teachers. This study sheds light on the prospective integration of educational technologies, online platforms, and English language education in the midst of 21<sup>st</sup> century and the COVID-19 global pandemic crisis.

**Keywords:** English language teacher education, Facebook, pre-service EFL teachers, TEFL program, TPACK Framework

### **Introduction**

Information and Communication Technology (ICT) and educational technology have increasingly brought changes and challenges into 21<sup>st</sup> century English teaching, learning, and communication at a tertiary level in order to prepare graduates to become highly qualified and skilled professionals in Thailand and the ASEAN Community (Phumpho & Nomnian, 2019; Suebwongsuwan & Nomnian, 2020; Tananuraksakul, 2015). As one of the key professions in Thailand, Thai teachers of English have been challenged to apply technological skills integrated

with knowledge necessary for effective teaching (Kwangsawad, 2016). Social networking sites, especially Facebook, are increasingly popular among users nowadays (Ahmad, 2019). With the widespread use of Facebook, there are considerable advantages to be gained from using it as an educational tool, such as creating community collaborations, enhancing interactions between students and teachers, developing computer and language skills, and incorporating students' own cultures into the learning material content (Inphoo & Nomnian, 2019; Shaw, 2017). Facebook as a learning tool helps students discover new knowledge, interact with peers, and share information (Boyd & Ellison, 2007). Facebook incorporated into English activities class results in a positive outcome to improve language learners' learning process (Bailey & Haji, 2017; Barbosa, 2017; Boontham, 2017; Faryadi, 2017; Kasuma, 2017; Khan et al., 2016; Salameh, 2017; Saleem, 2018; Sirivedin et al., 2018; Slim & Hafedh, 2019; Tananuraksakul, 2015). Thus, Facebook's attributes can serve as a source for non-native English speakers' development of language skills (Greenhow & Robelia, 2009).

Regarding the use of technology in the classroom, Mishra and Koehler (2006) propose a technological, pedagogical and content knowledge (TPACK) framework for educators which was adapted from Shulman's (1986) pedagogical content knowledge (PCK) framework. This framework comprises seven domains: (1) Technological Knowledge (TK); (2) Content Knowledge (CK); (3) Pedagogical Knowledge (PK); (4) Pedagogical Content Knowledge (PCK); (5) Technological Content Knowledge (TCK); (6) Technological Pedagogical Knowledge (TPK); and (7) Technological Pedagogical and Content Knowledge (TPACK). TPACK is the framework through which to understand the seven kinds of main knowledge needed by teachers for an effective technology-enhanced learning environment. It has been extensively investigated as a way of teaching through technology (Turgut, 2017a). Thus, teachers' technological competency would appear to be a useful measurement tool of teaching through the TPACK framework (Peng & Daud, 2015).

In Thailand, the Ministry of Education reform has provided information and communication technology (ICT) equipment and infrastructure for Thai schools since 2013, in recognition of the importance of technology in education and training (Ruangrong et al., 2014). Nevertheless, numerous technological problems have arisen such as inadequate hardware, software, and peopleware (Jinda & Bangthamai, 2016). These problems also expose Thai teachers' lack of technological skills and their inability to incorporate technology into their instruction methods (Nomnian & Arphattanon, 2018a, b; Ruangrong et al., 2014). Therefore, in seeking a suitable online platform to be included in classroom activities, due to its popularity, Facebook is a potential learning tool for Thai teachers of English as a foreign language (EFL).

Hence, developing pre-service EFL teachers' technological skills related to their teaching is vital before they can become fully effective in-service EFL teachers. The TPACK framework is concerned with the effective use of technology in the teaching and learning process (Kozikoglu & Babacan, 2019). Moreover, it can potentially reduce the problems of scarce hardware, software, and peopleware in Thai education. These pre-service EFL teachers will later employ such framework to develop their learners' skills, knowledge, and experience by considering the integration of appropriate pedagogy, content, and technology. Well-prepared pre-service teachers can drive new curricular and teaching methods for the next generations of in-service teachers (Kwangsawad, 2017).

The global pandemic crisis of coronavirus (COVID-19) has recently interrupted education in schools, colleges, and universities. To overcome these unprecedented challenges, the Director of UNESCO Institute for Information Technologies in Education, has called for an

emergency response from leading corporations specializing in information technologies and online platforms, including Facebook, to provide educational resources for schools and universities in order to minimize learning disruption worldwide (UNESCO IITE, 2020).

To fill the gaps in TPACK research in the Thai educational context, this study aims at integrating Facebook into a TEFL program based on the TPACK framework for pre-service EFL teachers and teacher trainers. With this aim, the research questions that guided this study are the following:

1. What are the Thai pre-service EFL teachers' competency levels teaching English through Facebook based on the TPACK areas of knowledge?
2. What are the Thai pre-service EFL teachers' perceptions towards their teacher trainers' use of Facebook in their teaching?
3. What are the Thai pre-service EFL teachers' perceptions towards their use of Facebook in their teaching?
4. What are the perceptions of the teacher trainers towards the use of Facebook in their teaching?

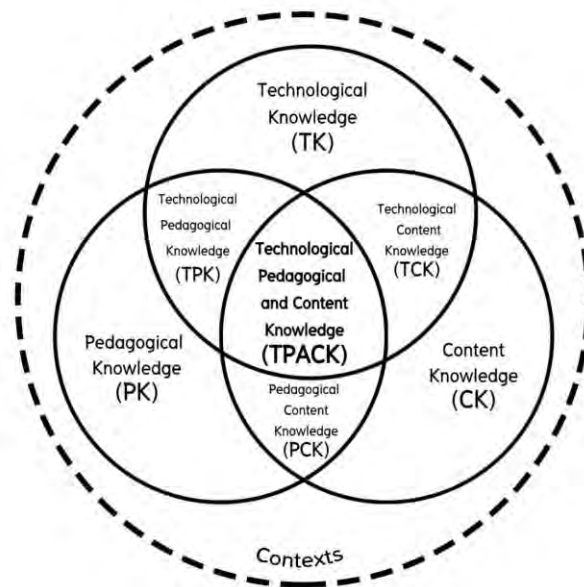
## **Literature Review**

The two main concepts reviewed in this study are: (a) TPACK framework and (b) Facebook as an educational resource.

### **TPACK Framework**

The Technological, Pedagogical and Content Knowledge (TPACK) framework was presented by Mishra and Koehler (2006), which aims at the effective integration of available technology, pedagogy, and content. This model was developed based on Shulman's (1986) Pedagogical Content Knowledge (PCK) model, which emphasizes the blending of content and pedagogy domains as sources of student's knowledge. Mishra and Koehler (2006) extended the PCK foundation by focusing more on "the connections, interaction, affordances, and constraints between and among content, pedagogy, and technology" (p.1025). These two frameworks are based on the social-culture concept according to Vygotsky's theory which states that societal and cultural components can construct cognitive progress through interactions and conversations (Jhaiyanuntana & Nomnian, 2020; Kozulin et al., 2003; Nomnian, 2018). For this reason, the integration of technology, pedagogy, and content can provide an ideal platform on which to build the students' knowledge as proposed by the TPACK model (Adam, 2017).

The TPACK framework comprises three main areas of knowledge: Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK). Additionally, this framework consists of four areas of knowledge, namely Technological Pedagogical Knowledge (TPK), Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK), and Technological, Pedagogical and Content Knowledge (TPACK); each of which is illustrated in Figure 1.



**Figure 1. Technological, Pedagogical, and Content Knowledge Framework (Mishra & Koehler, 2006)**

This TPACK framework describes each areas of knowledge introduced by Mishra and Koehler (2006) as follows:

1. Technological Knowledge (TK) is about the ways the teacher works with various technological resources.

2. Content Knowledge (CK) means the teacher has “knowledge about actual subject matter that is to be learned or taught” (Mishra & Koehler, 2006, p. 1026).

3. Pedagogical Knowledge (PK) is the approach to teaching, including students’ learning, class management, lesson planning, and learner assessment; all of which are also emphasized simultaneously.

4. Pedagogical Content Knowledge (PCK) is Shulman’s idea of delivering subject matter to learners in multiple ways within the teaching process.

5. Technological Content Knowledge (TCK) refers the subject content and student practice taught through appropriate technology.

6. Technological Pedagogical Knowledge (TPK) is knowledge of the various technologies that can be used to drive the teaching processes.

7. Technological Pedagogical and Content Knowledge (TPACK) is knowledge required to deliver lesson through technology as an appropriate part of the teaching process.

To sum up, the TPACK framework is appropriate for this study since it provides key areas of knowledge underpinning competency and the perceptions of Thai pre-service EFL teachers and their teacher trainers towards the integration of Facebook into their teaching and learning in a TEFL program.

### **Facebook as an Educational Resource**

Facebook is recognized as the most popular social networking site today (Ahmad, 2019). Mark Zuckerberg created Facebook in 2004 for use among students at Harvard University, and it has since spread to millions of users around the world (Shaw, 2017). Facebook users can fully use the platform after connecting to the Internet. During the COVID-19 crisis, Facebook has been employed as an online education platform that offers lesson plans, activities, videos, and other resources to help teachers, students, and families become empowered through the creation of safe, healthy, and supportive digital communities (UNESCO IITE, 2020). Shaw (2017) explains that Facebook users can create their own account and profile containing basic information such as birthday, relationship status, group community, contact information, photos, and general background. Moreover, they can share links or posts with other users, catch up on the news, share information and discuss issues on Facebook. Therefore, this platform can be promoted to deliver content to students and incorporated into the different teaching methods of instructors.

As a classroom management tool, Kalelioglu (2016) claims that most of the pre-service teachers in his study were satisfied with Facebook for sharing course material, messaging, uploading files, discussing, and receiving notifications. Focusing on sharing ideas by asking questions and discussing in closed-group learning, higher education students advanced their learning using Facebook (Schoper & Hill, 2017). Moreover, students active in Facebook groups had positive perceptions towards communication, community, dialogue creation, and material sharing among group members (Davidovitch & Belichenko, 2018). Likewise, Duncan and Barczyk (2016) state that students in higher education engage in positive community practices and learning enhancement activities more than non-Facebook users. Consequently, Facebook forums are commonly used as a learning platform among university students because their maturity allows them the greater self-control and discipline necessary to maximize the advantages of online learning.

However, when using Facebook as a teaching tool, there are some limitations for teachers and students. Shaw (2017) states that teachers should be aware of Facebook's challenges and limitations. First of all, teachers risk transgressing on students' online space when accepting a friend request, which can lead to students feeling uncomfortable using Facebook; therefore, teachers need to focus on maintaining a professional classroom environment. Secondly, students may not be aware of security issues regarding sharing inappropriate or personal content that might harm or cause negative impacts on their lives; thus, a closed group should be created by teachers to create privacy among students and teachers. Thirdly, Facebook should be used judiciously as it can impede concentration for both teachers and students. Lastly, teachers need to be acquainted with the digital infrastructure supporting high-speed internet so that it can be easily accessed and user-friendly for students. It is, therefore, advisable for teachers to understand the fundamentals of digital technology and networking prior to employing Facebook as a tool for language instruction.

This study aimed to determine the competency and perceptions of Thai pre-service EFL teachers and their teacher trainers towards delivering English instruction through Facebook. The adapted TPACK framework presented in this study is shown in Table 1 and Figure 2.

**Table 1: Adapted TPACK Framework**

Abbreviations	Original Version	Adapted Version
TK	Technological Knowledge	Facebook Knowledge
CK	Content Knowledge	English Knowledge
PK	Pedagogical Knowledge	Pedagogical Knowledge
PCK	Pedagogical Content Knowledge	Pedagogical English Knowledge
TCK	Technological Content Knowledge	Facebook English Knowledge
TPK	Technological Pedagogical Knowledge	Facebook Pedagogical Knowledge
TPACK	Technological Pedagogical and Content Knowledge	Facebook Pedagogical and English Knowledge

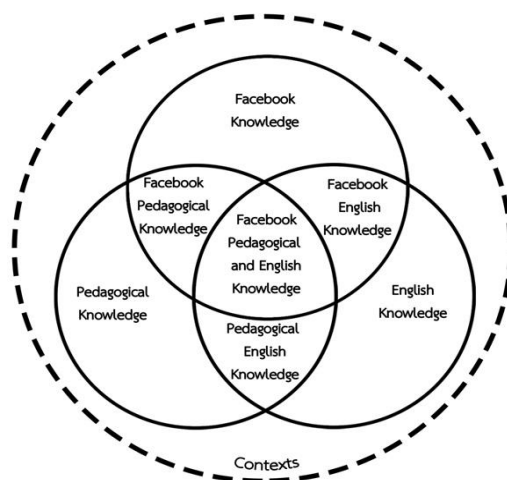
**Figure 2. Facebook, Pedagogical, and English Knowledge Framework**

Figure 2 shows the seven main areas of knowledge of the adapted framework used in this study; each of which is described as follows:

1. Facebook Knowledge (TK) is the way of considering different functions of features available. There are various protocols for teaching and learning through this platform. Significantly, English teachers can apply a suitable method for delivering English content through convenient accessibility.

2. English Knowledge (CK) means knowledge of the language, which is a key attribute of English teachers who are experienced and have expertise in both theory and practices. English content instruction should also be considered along with students' proficiency levels.

3. Pedagogical Knowledge (PK) addresses language teaching methods, approaches, and techniques required for effective language teaching along with appropriate content.

4. Pedagogical English Knowledge (PCK) refers to the teaching methods used by teachers to deliver suitable English language content to learners.

5. Facebook English Knowledge (TCK) is a reference to teachers' strategies used to receive and share English language content through the Facebook platform.

6. Facebook Pedagogical Knowledge (TPK) refers to knowledge of Facebook functions that can be incorporated into classroom activities.

7. Facebook Pedagogical and English Knowledge (TPACK) is the teacher's ability to teach English using multiple teaching methods by means of appropriate functions available on Facebook users.

These seven components underpin the analysis of this study.

## Methodology

### Setting and Participants

Case study was employed as a research design in this study because it provides an in-depth investigation of a situated context with identified groups of people whose experiences, perceptions and emerging issues can be explored in detail (Duff, 2014). A mixed-method approach was employed to collect data from a questionnaire survey, focus-group interviews, and individual semi-structured interviews. This study was undertaken at a university in Chiang Rai, Thailand. This University is a non-profit public higher education institution that offers a bachelor degrees in education with the aim of producing highly qualified teachers who have successfully completed compulsory courses in pedagogical knowledge and practicum.

Regarding the survey of the respondents, all 177 Thai pre-service EFL teachers were purposively selected as they met the research criteria in that they were studying for a Bachelor of Education (English major) at the university's Faculty of Education, and they were also Facebook users. The students ranged from 1<sup>st</sup> to 4<sup>th</sup> year levels in the 2019 academic year (See Table 2).

**Table 2: Number of Respondents**

Groups	Number of Respondents
1 <sup>st</sup> year pre-service EFL teachers	53
2 <sup>nd</sup> year pre-service EFL teachers	25
3 <sup>rd</sup> year pre-service EFL teachers	45
4 <sup>th</sup> year pre-service EFL teachers	54
Total	177

Furthermore, the purposive sampling technique was employed to conduct interviews in order to gain qualitative data. Firstly, a focus-group interview was conducted with 20 volunteer students; five from each of the four years. They provided further data based on TPACK scale.

With regard to the perceptions of the teacher trainers towards the use of Facebook, nine individual semi-structured interviews were undertaken with volunteer teacher trainers, including TEFL experts, instructional technology experts, educational foundation experts, and external experts outside the Faculty of Education: the TEFL experts were in charge of the TEFL courses offered to pre-service EFL teachers; the instructional technology experts provided knowledge and skills of technology related to language teaching; the educational foundation experts gave instructions on educational foundations; and the external experts from outside of the Faculty of Education taught relevant knowledge related to sociocultural contexts. The total number of interviewees for each group is shown in Table 3 below.

**Table 3: Number of Interviewees**

Groups	Number of Interviewees
1st year pre-service EFL teachers	5
2nd year pre-service EFL teachers	5
3rd year pre-service EFL teachers	5
4th year pre-service EFL teachers	5
Teacher trainers	
(1) TEFL experts	3
(2) Instructional technology experts	2
(3) Educational foundation experts	2
(4) External experts from outside the Faculty of Education	2
Total	29

### Research Instruments

A questionnaire and interviews were the research instruments in this study. The TPACK questionnaire (see Appendix 1) was employed to determine Thai pre-service EFL teachers' competency in teaching English through Facebook based on self-reported data, adapted from Mishra and Koehler's (2009) TPACK framework. The TPACK questionnaire consists of three parts, including: Part 1) 28 standard questions based on 5-point Likert scale; Part 2) four Faculty Model questions related to the teacher trainers according to the 5-point Likert; and Part 3) two TPACK Model supplementary questions created on a 4-point scale (Table 4). Both Faculty Model and TPACK Model parts investigated the teacher trainers' levels of the integration of Facebook into their class.

Table 4: TPACK Questionnaire

Parts	Question Numbers
Part 1	
TPACK Areas of Knowledge	1-6
TK	7-9
CK	10-16
PK	17
PCK	
TCK	18
TPK	19-27
TPACK	28
Part 2	
Faculty Model	1-4
Part 3	
TPACK Model	1-2
Total	34

The reliability of the original 28-item TPACK questionnaire of Mishra and Koehler (2009) was calibrated according to the reliability of scores provided by Schmidt et al. (2009) as



shown in Table 5. Moreover, a pilot test of the Thai-English version was also conducted. The Cronbach's coefficient alpha revealed a value of .90, and according to Tayakol and Dennick (2011), an alpha value of between 0.70 and 0.95 is acceptable.

**Table 5: Reliability of the TPACK Questionnaire (Schmidt et al., 2009)**

TPACK Areas of Knowledge	Internal Consistency (alpha)
Technology Knowledge (TK)	0.82
Content Knowledge (CK)	0.75
Pedagogy Knowledge (PK)	0.84
Pedagogical Content Knowledge (PCK)	0.85
Technological Pedagogical Knowledge (TPK)	0.86
Technological Content Knowledge (TCK)	0.80
Technological Pedagogical and Content Knowledge (TPACK)	0.92

The interviews were categorized into focus-group interviews and semi-structured individual interviews that explored in more depth the perceptions and views of pre-service EFL teachers and teacher trainers towards the use of Facebook based on the TPACK scales through open-ended questions (see Appendices 2 and 3).

### Data Collection and Analysis

Prior to conducting the actual research, the research instruments and data collection process were reviewed and approved by IPSR-Institutional Review Board (IPSR-IRB) committee and the Committee for Research Ethics (Social Sciences) of Mahidol University under the project No. IRB0001007 and COA. No. 2019/11-451. The data collection process was implemented as follows:

Firstly, the English-Thai questionnaire was submitted online through Google Forms to obtain quantitative data. Secondly, a letter outlining the purpose of the study was delivered to the Faculty of Education for consent and permission, which was granted by the Dean of the Faculty of Education. Each student chair for the undergrads in years 1 to 4 at the English Department was contacted in order to link up with the respondents. Finally, Google Forms were distributed to the target respondents via link and QR code. Respondents answered the questionnaire and submitted their responses via the Google Forms survey.

The survey data obtained from the 177 questionnaires was analyzed by SPSS with descriptive statistics. Answers to the original TPACK Areas of Knowledge and Faculty Model questions were analyzed according to five-point Likert scale as shown in Table 6.

**Table 6: Five-point Likert Scale Interpretation (TPACK Areas of Knowledge and Faculty Model)**

Levels	Ratings	Score Ranges	Interpretation
5	Strongly Agree	4.21 – 5.00	Very high
4	Agree	3.41 - 4.20	High
3	Moderate	2.61 – 3.40	Average
2	Disagree	1.81 – 2.60	Low
1	Strongly Disagree	1.00 – 1.80	Very low

Furthermore, answers to the supplementary TPACK Model questions in Part 3 were also analyzed based on a four-point Likert scale as illustrated in Table 7.

**Table 7: Four-point Likert Scale Interpretation (TPACK Model)**

Percentages	Interpretation
76% - 100%	Very high
51% - 75%	High
26%-50%	Low
Less than 25%	Very low

After receiving the questionnaire answers from the respondents, an appointment was made with each group of the respondents to conduct the focus-group interviews as a follow-up stage to the questionnaire results. Twenty interviewees completed consent forms confirming their willingness to take part in the interviews, which took approximately an hour in a private room at a library building. Semi-structured interviews were conducted with nine teacher trainers who completed consent forms to participate in the research interview. Each interview took about 30 minutes and were held at the Faculty of Education building.

A mobile phone device was used to record the focus-group and semi-structured interviews. The interview data was recorded digitally, transcribed verbatim, and categorized according to Mishra and Koehler's (2009) TPACK framework underpinning the research questions. Interview transcripts were then coded and interpreted in order to present the perceptions and views of the pre-service EFL teachers and teacher trainers according to the TPACK questionnaire.

## Results and Discussion

This section reports on the findings based on the research questions as follows:

**Research Question 1:** *What are the Thai pre-service EFL teachers' competency levels of teaching English through Facebook based on TPACK areas of knowledge?*

**Table 8: TPACK Areas of Knowledge**

Areas of Knowledge	$\bar{X}$	SD	Interpretation
TK	3.87	0.817	High
CK	3.67	0.712	High
PK	3.48	0.731	High
PCK	3.63	0.669	High
TCK	3.70	0.707	High
TPK	3.41	0.869	High
TPACK	3.51	0.721	High
Overall	3.61	0.747	High

As seen in Table 8, the results of all TPACK areas of knowledge were found to be at a high level ( $\bar{X}=3.61$ ). In particular, the results were as follows:

TK: Thai pre-service EFL teachers could use Facebook effectively ( $\bar{X}=3.87$ );

CK: Thai pre-service EFL teachers had sufficient English skills ( $\bar{X}=3.67$ );

PK: Thai pre-service EFL teachers understood the concepts behind teaching approaches and classroom management ( $\bar{X}=3.48$ );

PCK: Thai pre-service EFL teachers could combine their teaching approaches with their English skills ( $\bar{X}=3.63$ );

TCK: Thai pre-service EFL teachers had their strategies to apply their English skills through Facebook ( $\bar{X}=3.70$ );

TPK: Thai pre-service EFL teachers had new ideas for teaching using Facebook ( $\bar{X}=3.41$ ): and

TPACK: Thai pre-service EFL teachers were able to conduct English classes incorporating Facebook by applying various language teaching methods ( $\bar{X}=3.51$ ).

The findings indicate that the Thai pre-service EFL teachers possessed the English teaching skills needed for using Facebook in class, and, according to answers to the TPACK areas of knowledge, had high levels of competency ( $\bar{X}=3.61$ ). The Thai pre-service EFL teachers also possessed the requisite English skills, teaching approach, and Facebook mastery to be combined appropriately into their lessons to foster positive teaching and learning outcomes. This finding is consistent with Kozikoglu and Babacan (2019) in that technology was blended into English instruction to produce highly positive TPACK areas of knowledge that led to highly positive attitudes on the part of the Turkish EFL teachers concerned. Additionally, the TPACK framework has the potential to improve EFL teachers' performance by integrating technology into the teaching process to reinforce relationships among subject matters, teaching methods, and technology (Oktalia & Drajadi, 2018). Moreover, both male and female pre-service English language teachers improved their technologically-driven language teaching skills according to the TPACK framework (Ersanl, 2016).

**Research Question 2:** *What are the Thai pre-service EFL teachers' perceptions towards their teacher trainers' use of Facebook in their teaching?*

The Thai pre-service EFL teachers' perceptions towards their teacher trainers' use of Facebook in class were exhibited in answers to the Faculty Model and TPACK Model questions as presented in Tables 9 and 10, respectively.

**Table 9: Faculty Model**

Items	Statements	$\bar{X}$	SD	Interpretation
1.	My TEFL experts use an appropriate teaching method that combines English, Facebook, and other teaching approaches in their teaching.	1.71	0.552	Very low
2.	My instruction technology experts use an appropriate teaching method that combines content, Facebook, and other teaching approaches in their teaching.	1.66	0.552	Very low

Items	Statements	$\bar{X}$	SD	Interpretation
3.	My educational foundation experts use an appropriate teaching method that combines content, Facebook, and other teaching approaches in their teaching.	1.44	0.511	Very low
4.	My experts from outside of the Faculty of Education use an appropriate teaching method that combines content, Facebook, and other teaching approaches in their teaching.	1.37	0.487	Very low

According to the Faculty Model results presented in Table 9, all items were rated at a very low level ( $\bar{X}$ =1.55). These results suggest that teacher trainers rarely integrated Facebook-based activities into their class.

**Table 10: TPACK Model**

Items	Statements	$\bar{X}$	SD	Interpretation
1.	In general, approximately what percentage of your teacher trainers at the Faculty of Education have provided an effective model of combining content, Facebook and teaching approaches in their teaching?	1.81	0.640	Very low (Less than 25%)
2.	In general, approximately what percentage of your experts from outside of the Faculty of Education have provided an effective model of combining content, Facebook and teaching approaches in their teaching?	1.68	0.688	Very low (Less than 25%)
Overall		1.75	0.664	Very low

Table 10 shows that the pre-service EFL teachers considered that teacher trainers hardly ever incorporated Facebook activities into their lesson planning, possibly because they did not regard Facebook as being useful and applicable for teaching in class (see Extracts 1 and 2)

Extract 1

Our professors do not use Facebook for teaching directly, but they create closed groups for sharing important information and connecting with us (Aoy, 1<sup>st</sup> year).

Extract 2

We never learned through Facebook with our professors. They only introduced some useful Facebook Fanpages for learning English (Som, 3<sup>rd</sup> year).

In the survey results, the pre-service EFL teachers revealed that their teacher trainers rarely used Facebook in their lessons. In fact, Facebook appeared to have only been utilized for communication purposes between the students and their teachers in a closed-group format. This finding is similar to Oz's study (2015) in that non-EFL professors were rated at less than 25% based on the TPACK Model. EFL professors, on the other hand, were rated at 51%-75% (Oz, 2015). Within reference to the TPACK Model, Turgut (2017b) suggests that the use of technology in the classroom depends on the degree to which teachers create an environment that is supportive and conducive to students' learning.

**Research Question 3:** *What are the Thai pre-service EFL teachers' perceptions towards their use of Facebook in their teaching?*

Although the TPACK survey recorded a high score ( $\bar{X}=3.61$ ), the four groups of students had different perceptions regarding their readiness to deliver English lessons through Facebook. The 1<sup>st</sup> year students felt they were not ready to teach English through Facebook. Even though they could use Facebook, as newcomers to the TEFL program, they did not have sufficient knowledge of English and teaching skills (see Extract 3).

Extract 3

I am not ready yet because my English knowledge and teaching skills are insufficient. I only use Facebook. Moreover, I am new to this TEFL program. I have to learn more (Yam, 1<sup>st</sup> year).

Some of the 2<sup>nd</sup> year students thought they were ready to teach English through Facebook; yet, they were worried that it might not be fully effective. Furthermore, some of them felt they lacked sufficient English and teaching skills as they were only halfway through their course (see Extract 4).

Extract 4

I am ready to teach English on Facebook. But I can only do it with my current skills, which might not be effective because I am still studying in English pedagogy courses (View, 2<sup>nd</sup> year).

As for the 3<sup>rd</sup> year students, they preferred to conduct English classes face-to-face rather than online. They were not ready to teach English on Facebook because, in general, they were not confident with their English and teaching skills (see Extract 5).

Extract 5

I am confident and ready to teach English in a normal class. But I am not sure if I can use Facebook in my teaching. I do not know the strategies for teaching through Facebook. I can only use Facebook (Som, 3<sup>rd</sup> year).

Lastly, the 4<sup>th</sup> year students revealed that they were ready to teach English on Facebook. They had some experience teaching English in practicum classes, but felt their skills needed support from their teacher trainers to further boost their confidence (see Extracts 6 and 7).

Extract 6

We are ready, with all the skills, but we are not confident enough to use Facebook to teach. We would like more support from teachers experienced at teaching English on Facebook (Toy, 4<sup>th</sup> year).

Extract 7

Overall, I think 4<sup>th</sup> year students are ready because we did a lot of teaching practicum in normal classes. We can adjust our teaching by using Facebook if we have a chance to do it (Wave, 4<sup>th</sup> year).

Moreover, most of the Thai pre-service EFL teachers expected to learn how to use Facebook for teaching English. They had positive attitudes towards teaching English with Facebook since they needed new teaching paradigms and interesting teaching techniques, which Facebook could provide. They considered Facebook to be the most suitable online method for teaching at the beginning and useful for teaching practicum at school and part-time online teaching in the future, as expressed in the following extracts.

Extract 8

I think in the future, teachers will have to learn to teach online, not only with Facebook, but also other digital platforms. However, Facebook is reasonable for the beginning steps and then I can develop onto other platforms afterwards (Som, 3<sup>rd</sup> year).

Extract 9

I have only learned the concepts for teaching with Facebook so far, and am currently waiting for the Facebook training course. I think if I become an expert at using Facebook for teaching, I can establish online courses on Facebook as a part-time job (Pong, 4<sup>th</sup> year).

Extract 10

After training, I will be confident enough to apply Facebook in my classes next year during the school practicum. I think it will help me a lot in my teaching (Bell, 4<sup>th</sup> year).

It is recommended that Thai pre-service EFL teachers be equipped with supplementary skills for English teaching through Facebook in their TEFL program. The students in this study were determined to achieve their profession based on TPACK areas of knowledge using new teaching methods and techniques which could be adapted for their teaching practicum and online classes via Facebook. Their perceptions are similar to the findings in Kozikoglu and Babacan's (2019) study where technological skills were necessary for support during pre-service teacher training in order to produce positive attitudes through the use of technology. In that case, the teaching and learning outcomes of pre-service EFL teachers were improved in terms of quality by virtue of TPACK-based instruction methods used by the teacher (Oz, 2015). In addition, Chookaew et al. (2017) suggest that after training in the use of technology for teaching, in-service vocational teachers developed more positive learning motivation. Thai education should take heed of this and recognize the importance of technological training for in-service teachers (Adulyasas, 2017), especially as it is clear that Thai pre-service EFL teachers wish to be equipped with teaching skills that take advantage of social media such as Facebook coupled with other development that fosters self-confidence in their online instruction.

**Research Question 4:** *What are the perceptions of the teacher trainers towards the use of Facebook in their teaching?*

The pre-service EFL teachers' responses to the Faculty Model ( $\bar{X}$ =1.55) and TPACK Model ( $\bar{X}$ =1.75) reveal the relatively low levels of their teacher trainers' integration of Facebook into their instruction. To confirm these results, the following extract illustrates that only one TEFL expert used Facebook in class, and that was for developing writing skills (see Extract 11).

#### Extract 11

I have taught here for seven years and I used Facebook at the beginning year. At that time, I used it to connect with students because I could get in contact with them quickly. In the past, I was interested in research relevant to developing writing through Facebook because Facebook seemed to help peer teaching. Consequently, I decided to introduce Facebook into my academic writing class, so at least I could assess their writing using Facebook's comment box. It was convenient to do it that way because they could read their friends' ideas and adapt them for themselves. However, some students simply copied their friends' writing structures and ideas. There are advantages and disadvantages of teaching with Facebook for my class (TEFL Expert 1).

However, most of the teacher trainers did not suggest Facebook for pre-service EFL teachers due to their lack of experience using it for teaching purposes. As for the instructional technology experts, they aimed to introduce other platforms as educational tools since the pre-service EFL teachers were already familiar with Facebook and could learn effectively by themselves. Moreover, Facebook alone is insufficient, and pre-service EFL teachers should learn and integrate a variety of online platforms as alternative instructional media (see Extracts 12 and 13).

#### Extract 12

I have no suggestion for them for teaching using Facebook because I have never used it myself for teaching. I only use it for interactions (TEFL Expert 3).

#### Extract 13

Actually, it's possible to teach with Facebook, but I have to focus on other important technologies for education first. Facebook is used by students every day, so they might be more skillful than me at self-study. Currently, Facebook is not a platform that our department recommends for teaching (Instructional Technology Expert 1).

According to Extracts 14, 15, and 16, the teacher trainers did not focus specifically on Facebook as an educational tool, but taught with other basic educational software programs not related to social media. Remarkably, they rarely seemed to offer lessons using Facebook as an educational tool for their students.

#### Extract 14

I think they should be trained to teach through Facebook because nowadays entrepreneurs can make profits in many ways with this platform. Although we have no plan currently, I can assist them any time (TEFL Expert 1).

#### Extract 15

I never use Facebook for teaching directly, but I use it for connecting with students. I always create closed groups among the students for whom I'm responsible in order to share information (Instructional Technology Expert 1).

#### Extract 16

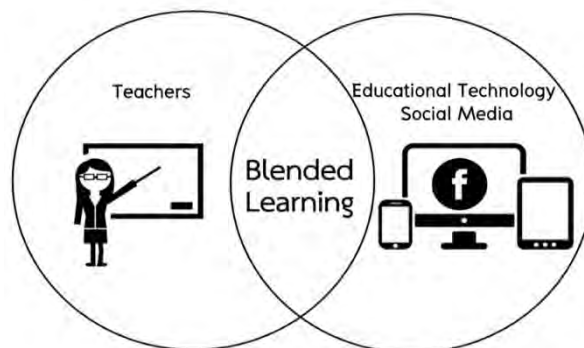
I teach with other basic educational platforms now; I don't focus on Facebook specifically for education. Anyway, it's better to mix it with other teaching platforms because different functions can support each other more effectively. So, they can contact me anytime if they

want my help with Facebook, but a Facebook training plan is not possible at the moment (Instructional Technology Expert 2).

As such, most of the teacher trainers viewed Facebook more as a broadcast medium for sharing information and connecting learners in closed groups rather than as a means to transform instructional procedures. Moreover, they rarely introduced Facebook as an instructional platform because they believed that their pre-service EFL teachers were already regular users of Facebook; thus, they could construct their own teaching knowledge. In fact, traditional class methods are still necessary for pre-service EFL teachers because of the need to prepare them to become highly qualified teachers with well-rounded skills simultaneously. Therefore, they preferred to employ other important education tools rather than social media such as a Facebook since such media was not well established as a direct tool for teaching and had limited functionality. Remarkably, they had no plan for formal training with Facebook since they only played a role as advisors to pre-service EFL teachers in case of questions. These findings correlate with Espinosa's (2015) study in that traditional class techniques and Facebook-assisted learning should be balanced, especially given that alternative platforms have proved to be less challenging and therefore less risky.

### **Pedagogical Implications of the Study**

Drawing upon the findings, the pre-service EFL teachers were fully able to comprehend Facebook functions and receive training from teacher trainers with English online teaching experience in order to enable them to incorporate technological innovations into traditional classroom methodologies. The appropriate pedagogical models implemented in this study consist of a blended-learning paradigm. This learning system is defined as hybrid learning between face-to-face instruction and online instruction (Caner, 2012). With the propagation of 21<sup>st</sup> century education skills and the global education disruption caused by COVID-19 crisis, face-to-face and online teaching, together with the use of appropriate technology, should be considered as a contextualized method capable of promoting learners' achievement. Furthermore, blended learning can support informal learning methodologies through which studies might gain access to new academic content beyond that available in traditional classrooms and simultaneously enhance their technological skills and encourage self-study. To clarify, Figure 3 illustrates a blended-learning concept as follows:



**Figure 3: Blended-Learning Paradigm (Peek, 2014)**



As far as previous studies of blended learning using Facebook are concerned, Carreon (2018) claims that blended learning can promote students' skills development for online education. Moreover, Erdem and Kibar (2014) also note that Facebook blended learning received positive responses from students interacting as part of a shared work project. Hence, the popularity of using Facebook blended together with active learning process could potentially increase Thai pre-service EFL teachers' teaching knowledge as described in the TPACK framework. In addition, it may be possible for them to manage their classes by balancing face-to-face instruction and Facebook instruction.

To accomplish an effective blended-learning paradigm, it is advisable for teachers and students to be well-equipped and trained, and educational technology readily available and prepared. To establish this, first there needs to be continuous professional development and a learning community so that TEFL teacher trainers and English teachers can keep themselves up-to-date and undergo regular teacher training with alternative educational technology and social media platforms in order to ensure that their English language teaching skills remain applicable to their learners' English language learning styles, motivations, and interests (Hockly, 2018). Teacher trainers should also recognize and assess their educational contexts to determine whether blended learning is appropriate for their students and courses and thereby strike the right balance between face-to-face and online teaching modes (Dzuiban et al., 2018). Second, students should be flexible, adaptive, and versatile enough to deal with various combinations of face-to-face and online pedagogical methods that can broaden their access to education (Gaol & Hutagalung, 2020). Third, but no less important, a comprehensive digital infrastructure, and training in ICT and the use of social media applications for education is essential, requiring investment, on-going development and sustainment in order to enhance equitable quality education for all teachers and students, especially in remote areas (Nomnian et al., 2020).

## Conclusions and Recommendations

This study investigated Thai pre-service EFL teacher's competency and perceptions towards English teaching through Facebook based on the TPACK framework. Responses to a TPACK questionnaire indicated that the respondents possessed high competency levels for all areas of knowledge, including TK, CK, PK, PCK, TCK, TPK, and TPACK. Moreover, the interview data revealed that they had positive attitudes towards teaching English through Facebook and were able to apply TPACK strategies in their teaching together with Facebook. However, they were not confident in conducting online classes themselves, and preferred to rely on the support of teacher trainers at this time due to their lack of experience.

According to almost all of the teacher trainers, Facebook was useful in interactions and social interchange aspects of lessons, but less so in their academic activities. With respect to the technological education experts who participated in this study, they expanded the use of technology as an instructional tool beyond Facebook because the Thai pre-service EFL teachers were capable of learning Facebook functions by themselves. Therefore, currently, none of the teacher trainers planned to fully integrate Facebook into their teaching methodology, although the pre-service EFL teachers themselves wished to learn how to do so. Despite its non-generalizability, the results and pedagogical implications of this case study provide TEFL educators and researchers some insight into perceptions and practices related to the use of social media in the classroom that can help guide their English language education in meeting the growth demand for ICT-driven language pedagogy in the midst of 21<sup>st</sup> century.

On a last note, this paper calls for an emergency response from policy makers, educational administrators, English language teachers, educators, technology specialists, families, and digital communities to synergize their expertise, knowledge, skills, experience, and support for teachers and students to combat the global education disruption. Online learning technology and social media may potentially give rise to blended English language education that requires further exploration and advancement in responding to these current unprecedented challenges of COVID-19 and beyond.

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## APPENDIX 1

### TPACK QUESTIONNAIRE

#### PART 1: TPACK Areas of Knowledge

**Instruction:** Please indicate your choice with “√” in the appropriate box to provide the answer you may have skills most strongly about (Strongly agree = 5, Agree = 4, Moderate = 3, Disagree = 2, Strongly disagree = 1).

TPACK Areas of Knowledge	5	4	3	2	1
<b>TK (Technology Knowledge)</b>					
1. I know how to solve my own technical problems.					
2. I can learn Facebook use easily.					
3. I keep up with important up-to-date Facebook.					
4. I frequently play around the Facebook.					
5. I know about a lot of different Facebook functions.					
6. I have the technical skills I need to use Facebook.					
<b>CK (Content Knowledge)</b>					
7. I have sufficient knowledge about English.					
8. I can use an English way of communication.					
9. I have various ways and strategies of developing my understanding of English.					
<b>PK (Pedagogical Knowledge)</b>					
10. I know how to access student performance in a classroom.					
11. I can adapt my teaching based-upon what students currently understand or do not understand.					
12. I can adapt my teaching style to different learners.					
13. I can assess student learning in multiple ways.					
14. I can use a wide range of teaching approaches in a classroom setting.					
15. I am familiar with common student understandings and misconceptions.					
16. I know how to organize and maintain classroom management.					
<b>PCK (Pedagogical Content Knowledge)</b>					
17. I can select effective teaching approaches to guide student communicating and learning in English.					
<b>TCK (Technological Content Knowledge)</b>					
18. I know about Facebook that I can use for understanding and doing English.					
<b>TPK (Technological Pedagogical Knowledge)</b>					
19. I choose Facebook that enhance the teaching approaches for a lesson.					
20. I choose Facebook that enhance students' learning for a lesson.					
21. My teacher education program has caused me to think more deeply about how Facebook could influence the teaching approaches I use in my classroom.					
22. I am thinking critically about how to use Facebook in my classroom.					
23. I can adapt the use of Facebook that I am learning about to different teaching activities.					
24. I select Facebook to use in my classroom that enhance what I teach, how I teach and what students learn.					
25. I can use strategies that combine English, Facebook and teaching approaches in my classroom.					

26. I can provide leadership in helping others to coordinate the use of English, Facebook and teaching approaches at my school and/or district.					
27. I can choose Facebook that enhances English for a lesson.					
TPACK (Technological Pedagogical and Content Knowledge)					
28. I can teach lessons that combine English, Facebook and teaching approaches appropriately.					

**PART 2: Faculty Model**

**Instruction:** Please indicate your choice with “√” in the appropriate box providing the answer you may have skill most strongly about (Strongly agree = 5, Agree = 4, Moderate = 3, Disagree = 2, Strongly disagree = 1).

Faculty Model	5	4	3	2	1
1. My TEFL experts use an appropriate model that combines English, Facebook, and teaching approaches in their teaching.					
2. My instructional technology experts use an appropriate model that combines content, Facebook, and teaching approaches in their teaching.					
3. My educational foundation experts use an appropriate model that combines content, Facebook, and teaching approaches in their teaching.					
4. My external experts outside of the Faculty of Education use an appropriate model that combines content, Facebook, and teaching approaches in their teaching.					

**PART 3: TPACK Model**

**Instruction:** Please indicate your choice with “√” in the appropriate box to provide the answer you may feel most strongly about (The highest level = 100%-76%, High level = 75% - 51%, Low level = 50% - 25%, Very low level = Less than 25%).

TPACK Model	100%-76%	75% - 51%	50% - 25%	Less than 25%
1. In general, approximately what percentage of your teacher trainers at the Faculty of Education have provided an effective model of combining content, Facebook and teaching approaches in their teaching?				
2. In general, approximately what percentage of your external experts outside the Faculty of Education have provided an effective model of combining content, Facebook and teaching approaches in their teaching?				

**APPENDIX 2**  
**FOCUS-GROUP INTERVIEW QUESTIONS**

1. Which technologies do you learn English through?
2. Which is your favorite platform for learning English?
3. Which social media do you often use in daily life?
4. How often do you use Facebook in a day?
5. What are your purposes on Facebook use?
6. How do you use Facebook for learning and improving English?
7. Which skills have you gained the most from learning English through Facebook?
8. What are the advantages of Facebook for learning and teaching English?
9. What are the disadvantages of Facebook for learning and teaching English?
10. Have you ever seen your teacher trainers using Facebook in their instruction?
11. How do your teacher trainers recommend on Facebook for learning or teaching platform?
12. How will you create the English class through Facebook in your school practicum?
13. Do you want to attend the training of Facebook for teaching from teacher trainers?



**APPENDIX 3**  
**INDIVIDUAL SEMI-STRUCTURED INTERVIEW QUESTIONS**

1. How long have you been teaching in the Faculty of Education and this university?
2. What technologies do you often use for instruction?
3. Which social media do you often use in daily life?
4. What are your purposes on Facebook use?
5. How have you applied Facebook into your instruction?
6. What are the advantages of Facebook for instruction?
7. What are the disadvantages of Facebook for instruction?
8. How did you advise Facebook for instructional platform for pre-service EFL teachers?
9. How do you think of Facebook as an educational tool?
10. Have you got the plan of Facebook for instructional training to pre-service EFL teachers?