

## **TPACK FRAMEWORK: CHALLENGES AND OPPORTUNITIES IN EFL CLASSROOMS**

**Lita Liviani Taopan**

[litalivianitaopan@untribkalabahi.ac.id](mailto:litalivianitaopan@untribkalabahi.ac.id)

Department of English Education, Universitas Tribuana Kalabahi,  
Alor- Indonesia

**Nur Arifah Drajadi**

[nurarifah\\_drajati@staff.uns.ac.id](mailto:nurarifah_drajati@staff.uns.ac.id)

Department of English Education, Program Pascasarjana, Universitas Sebelas Maret,  
Surakarta-Indonesia

**Sumardi**

[sumardi74@staff.uns.ac.id](mailto:sumardi74@staff.uns.ac.id)

Department of English Education, Program Pascasarjana, Universitas Sebelas Maret,  
Surakarta-Indonesia

---

### **Abstract**

Technological pedagogical and content knowledge (TPACK) is a dynamic framework for defining teachers' knowledge. This framework is needed for designing, implementing, and evaluating curriculum and instruction with technology. TPACK framework was firstly developed by Shulman (1986) and then expanded by Mishra & Koehler (2006) by adding the technology element. The purpose of this inquiry is to explore and retell the story of an English teacher using the TPACK framework for teaching English. More specifically, the study is intended to know the challenges and the opportunities in using the TPACK framework in teaching English. A narrative inquiry with the thematic analysis used for analyzing the data. To collect the data, the researcher used a semi-structured interview, observation, and document analysis. The participant was an experienced English Teacher in a high school in Indonesia. The study revealed that technology integration in teaching English is quite complicated. The teacher deals with challenges like IT literate, internet connection, and lack of ideas to create meaningful tasks using technology. Otherwise, the technology integration offers some opportunities such as pleasant and flexible classroom, motivate students and teacher to improve themselves and various opportunity to develop the multimodal product. This finding is a useful input related to the EFL research on technology integration. Moreover, this finding also a suggestion for the institution or the stakeholders in which they should aware of the need to support the teaching and learning process in the classroom with sufficient facilities

***Keywords: Challenges, narrative inquiry, opportunities, technology integration, TPACK***

### Sari

TPACK adalah kerangka kerja yang dinamis untuk mendefinisikan pengetahuan guru. Kerangka kerja ini dibutuhkan untuk mendesain, mengimplementasikan dan mengevaluasi kurikulum dan panduannya menggunakan teknologi. Kerangka kerja TPACK pertama kali di kembangkan oleh Schulman (1986) dan kemudian di perluas oleh Mishra dan Koehler (2006) dengan menambahkan elemen teknologi. Tujuan dari penelitian ini adalah untuk mencari tahu dan menceritakan kembali kisah dari seorang guru bahasa Inggris yang menggunakan kerangka kerja TPACK dalam kegiatan pembelajaran. Untuk menganalisis data, saya menggunakan metode analisis tema dalam model penelitian narrative inquiry. Untuk pengumpulan data, saya menggunakan metode wawancara semi –terstruktur, observasi dan analisis dokumen. Partisipan dalam penelitian saya adalah seorang guru bahasa Inggris berpengalaman di salah satu SLTA di Indonesia. Penelitian ini mengungkapkan bahwa integrasi teknologi dalam pembelajaran bahasa Inggris cukup sulit. Guru dihadapan dengan tantangan-tantangan seperti literasi teknologi, jaringan internet, dan kurangnya ide-ide untuk menciptakan pengajaran yang bermakna menggunakan teknologi. Sebaliknya, integrasi teknologi juga memberikan peluang seperti kelas yang fleksibel dan menyenangkan, memotivasi siswa dan guru untuk mengembangkan dirinya dan juga mengembangkan berbagai macam produk multimodal. Temuan ini adalah masukan yang berguna bagi penelitian tentang pengajaran bahasa asing dalam kaitannya dengan integrasi teknologi. Lebih dari pada itu temuan dalam penelitian ini juga sebagai masukan kepada institusi dan pimpinan bahwa mereka harus menyadari pentingnya mendukung proses belajar mengajar di kelas dengan fasilitas yang memadai.

**Kata Kunci:** *Tantangan, narrative inquiry, peluang, integrasi teknologi, TPACK*

---

Received 2019-11-04  
doi. 10.33603/rill.v3i1.2763

accepted 2020-01-10

published 2020-01-31

### INTRODUCTION

Teaching is a complicated process in which many complex processes are involved, such as material selection, classroom activity and many others (Richard & Lochart, 1996). Therefore, many teachers believe technology integration in the classroom helps them carry out the learning process effectively and overcome the complexity of the teaching and learning process (Chamorro & Rey, 2013). However, they become very dependent on technology so that the role of technology becomes excessive.

Regarding the use of technology in the classroom, the Indonesian government has regulated or strongly encouraged an accelerated integration of technology in the educative process. As cited in the Standard of Primary and Secondary Education

Processes (Regulation of the Minister of Education and Culture of the Republic of Indonesia, 2016): the learning process in the education unit is held in a manner of interactive, inspiring, fun, challenging, motivating learners to actively participate, and providing sufficient space for the initiative, creativity, and independence in accordance with talents, interests, and physical and psychological development of students. Therefore, following the graduates' competency standards and the content standards, then, one of the learning principles used is the utilization of information and communication technology to improve learning efficiency and effectiveness. It means that the government supports any technology integration in the classroom to enhance the efficiency and effectiveness of the teaching and learning process.

Technology integration for teaching and learning has gained popularity among the researcher and technology itself facilitates the learners' learning (Chien, 2016). Moreover, Redmann & Kotrlik, (2004) defines technology integration as "employing the internet, computers, cd ROMs, interactive media, satellites, teleconferencing, and other technological means in instruction to support, enhance, inspire and create learning". In line with this, Ramorola, (2014) defines technology integration as bringing together or combining technology with teaching and learning strategies to meet the curriculum standards and learning outcomes of each lesson, unit, or activity. This study also reported several significant challenges in technology integration such as unavailability of policy on technology, technophobia, insufficient resources, a lack of qualified technology teachers, maintenance and technical problems, risks and security problems, poor parental involvement, insufficient time, and computer jargon. These challenges generally occur in all fields of education.

In addition to this, Lubis, (2018) reported that although ICT integration in Indonesia has good impacts and gives positive perception, the benefits of the integration are still focused on the technical level, not on the communicative and functional in student learning. Also, time allocation and technical problems are the main obstacles in the integration of ICT in the EFL classroom in Indonesia. Most teacher using technology without any consideration related to the crucial aspect such as the pedagogy and the content. Therefore, this study intended to reveal the challenges and the opportunities

offered by technology integration through the existing framework called Technological Pedagogical and Content Knowledge (TPACK).

### **TPACK Framework**

According to Koehler (2010), Technological Pedagogical and Content Knowledge (TPACK) is about what teachers need to know regarding technology integration in the classroom. The TPACK framework provides theoretical lens of describing whether a teacher can effectively design and conduct technology-enhanced instruction and describe the kinds of knowledge needed by a teacher for effective pedagogical practice in a technology-enhanced learning environment (Lehiste, 2015; Lin et al. 2013; Angeli & Valanides 2005, Mishra and Koehler 2006;2009 ). In line with this, Schmidt et al., (2009) stated that TPACK is a useful framework for thinking about what knowledge teachers need to integrate technology into teaching and how they might develop this knowledge. Moreover, the use of TPACK as a framework for measuring teaching knowledge could probably have an impact on the type of training and professional development experiences that are designed for both pre-service and in-service teachers (Lehiste, 2015).

Mishra and Koehler's definitions of content knowledge (CK), pedagogical knowledge (PK), and pedagogical content knowledge (PCK) are similar to Shulman's: CK was seen as "knowledge about the actual subject matter that's to be learned or taught". This definition includes teachers' deep understanding of subject contents and the nature of knowledge among the fields; pedagogical knowledge (PK) was defined as "deep knowledge about the processes and practices or methods of teaching and learning". What Mishra and Koehler added in this framework were the definitions of technology knowledge (TK), technological content knowledge (TCK), technological pedagogical knowledge (TPK), and technological pedagogical content knowledge (TPACK) as seen in the following figure:

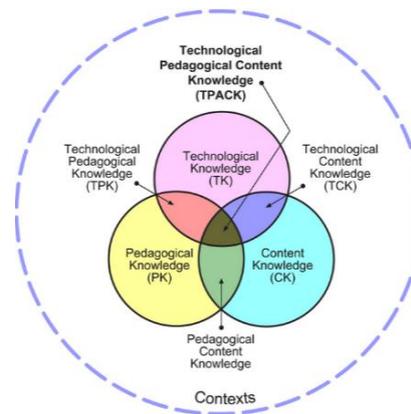


Figure 1: Mishra and Kohler TPACK framework (2006)

TPACK includes three bodies of knowledge and intersections among them: Technological knowledge (TK) refers to the teachers' ability to operate a variety of technologies for instructional purposes; Pedagogical knowledge (PK) deals with their competency of utilizing particular teaching strategies to improve student learning; Content knowledge (CK) is associated with their knowledge and skills of the subject matter. Technological pedagogical knowledge (TPK) involves their ability to employ teaching strategies supported by technologies; Technological content knowledge (TCK) concerned with their knowledge of using technologies to improve student learning of subject matter; Pedagogical content knowledge (PCK), is known as their knowledge of employing various teaching strategies to represent subject matter; Technological pedagogical and content knowledge (TPACK) requires the teachers to help their students acquire content using particular teaching strategies via the use of specific technologies.

TPACK framework gives some opportunities in teaching (Bugueño, 2013). Firstly, a good teaching framework with technology integration requires an understanding of the concepts of technology usage. Secondly, it presents pedagogical techniques that use technologies in practical ways to teach subject matter, knowledge of what makes subject difficult or easy to learn and how technology can help to solve some of the problems that faced by students. Finally, it represents knowledge of students' basic knowledge and theories of epistemology, and knowledge of how technologies can be used to build

on existing knowledge and to develop a new theory of knowledge or strengthen old ones (Mishra & Koehler, 2006).

Several points related to the TPACK framework can be highlighted: First, technology is seen as a tool that helps in the learning process and helps students stay engaged ( Bugueño, 2013; Mishra & Koehler, 2006; Waddel, 2015; Mareco, 2017). Moreover, representations of the content enhanced by using technology in the classroom. Second, TPACK is a constructivism approach (Chai & Koh, 2017; ). Constructivism is a theory that equates learning with creating meaning from experience (Ertmer & Newby, 1993; Bednar et al., 1991). For the constructivist, both learner and environmental factors are critical, and the specific interaction between these two variables creates knowledge. Moreover, good teaching involves learners actively participating, reflectively think and collaborating with one another and the technology integration allows learners to engage in rich learning possibilities (Maor, 2003; Maor & Roberts, 2011). Finally, the natural order of technology integration into the classroom dictates that after goals have been identified, a representation of the concept is chosen, and then a piece of technology is matched to the idea or certain activity (Bugueño, 2013). In line with this, Guymon (2014) argued that before goal identification, there should be an identification of the relative advantages. This refers to the need analysis process. Following the goal or objective determination, the pedagogy should be considered in order to prepare and choose the instructional environment or the appropriate pieces of technology.

### **TPACK and Classroom Practice**

Presenting the learners with supporting learning situation is a good pedagogical process in the classroom (Shulman, 1986). Olatoye, Nleya, & Batane (2013) reported that good classroom teacher needs to help the students to develop the spirit of inquiry through various simulative materials. This will help out teachers in activity-based strategies than expository or lecture method that was tag as a teacher-centred approach in learning.

Frequently, teachers are involved in pedagogical reasoning processes in order to create learning experiences that are of value to their students. Teachers combine their knowledge of how students learn with content-specific knowledge through pedagogical reasoning. It is the synergy of which creates learning environments that are in tune with

the particular needs of their students. This, in itself, is a great challenge (Maor, 2006). However, the emergence of networked and mobile technologies suggests that teachers are also required to acquire a level of technological competence to make connections with contemporary students. This complexity is added to teachers' pedagogical reasoning processes (Cox & Graham, 2009; Mishra and Koehler, 2006).

TPACK takes into account that every classroom context is unique due to variations in the professional development school climate and available resources. The framework help teachers remember to start with their content and pedagogy and then layer in technology. Sometimes the teacher gets excited about new technology and then design a lesson around that particular tool, but in doing so, it's easy to lose sight of goals and objectives for student learning. TPACK reminds us that technology is just part of great teaching, and it is truly an intricate combination of content pedagogy and technology that meant for innovative teaching and learning. Moreover, Niess, (2011) reported that the dynamic framework presented by Technological pedagogical and content knowledge (TPACK) for describing teachers' knowledge is required for designing, implementing, and evaluating curriculum and instruction with technology. Understanding of the time, place and manner to use domain-specific knowledge and strategies for guiding students' learning with appropriate information and communication technologies is including in TPACK strategic thinking (Niess, 2011).

In describing and developing teachers' TPACK, different visual and verbal portrayals reveal the evolving recognition of teacher educators and educational researchers as they have struggled to respond to the challenges. This broad indication draws the historical acceptance of pedagogical content knowledge (PCK) with the emerging views of and challenges with TPACK. Potential insights, values, and challenges for guiding future academic implementations are described through a review of empirical progress within the investigation of TPACK. It designed to spot a teacher's learning trajectory in the development of a more robust and mature TPACK for supporting them in teaching with current and emerging technologies.

In line with this, Liu et al. (2014) reported that in China, the scarcity of exposure to natural English speaking environments is limited and lack of opportunities in real-time communications with native English speakers generated the EFL learners to depend on technology for learning authentic English heavily, especially listening and speaking. This situation strengthens the assumption that technology application in EFL classroom is essential. Therefore, EFL teachers need to "technologize" their professional knowledge, and in other words, to integrate technology into their PCK; Mishra & Koehler, 2006).

The question that arises next is how teachers integrate technology into their teaching? In order to treat teaching as an interaction between what teachers know and how they apply what they know in the unique circumstances or contexts within their classrooms, an approach is needed (Koehler & Mishra, 2009). In addition to this, Taopan, et al, (2019), reported that TPACK framework, with its integral elements, offers a new perspective for teachers related to their practice in the classroom, which including technology integration. However, for English language teachers, a similar question also emerged during the classroom, and when the TPACK framework is the answer to the question, teachers face another question about how to deal with it. Therefore, this paper aims to reveal the story of an English teacher dealing with the implementation of the TPACK framework in teaching English, and reveal what are the challenges and the opportunities using the framework in the EFL classroom.

## **Methods**

Clandinin & Connelly (2000) as cited in Clandinin, (2006) states,

Experience happens narratively. While the narrative inquiry is a form of narrative experiences. Therefore, educational experiences should be studied narratively.

This study grounded in narrative inquiry for yielding the critical stories that describe the experience of teachers who apply the TPACK framework in teaching English. I used an oral narrative with the semi-structured interview, observation, and document analysis for the data collection, and thematic analysis with a single case study was applied for the data analysis (Barkhuizen, Benson, & Chik, 2014). The research took three months from February to May 2019. The participant of this narrative inquiry was selected

purposely, and the participant should meet three criteria: (a) taught first or second grade of high school (b) had five years or more of teaching experience, and (c) familiar with the TPACK framework. Based on the criteria, the participant of this inquiry is a 51 years old female teacher who has been teaching for 25 years and now she is working on one of high school in Indonesia. She is a bachelor degree in English education and masters in school management. She has been using technology in the English language classroom since the beginning of her teaching carrier. She participated in the various workshop on technology for teaching and learning, e.g., the workshop about TPACK, Edmodo, Ted-Ed, Paddle, Kahoot and etc.

### **Data Analysis**

In this study, I used the thematic analysis to analyze the narrative data. The model of thematic analysis is proposed by Barkhuizen et al., (2014) which consists of single case studies and multiple case studies. For this study, the researcher used a single case study to analyze the data from one participant. Moreover, Barkhuizen proposed three main activities in the thematic analysis (Barkhuizen et al., 2014). First, repeatedly reading of the data. Second, coding and categorizing the data extracts and the last recognizing the thematic headings. In order to define the thematic heading which is about the TPACK framework, an interview protocol was adapted from (Schmidt et al., 2009). Furthermore, I used method triangulation to validate the findings and to make the final results more reliable (Wilkinson & Birmingham, 2003). I used the interview, observation and document analysis to ensure the trustworthiness. For this research, the triangulation process took several and constant revisions in order to end with meaningful and accurate information.

## **RESULT AND DISCUSSION**

### **Anne' Story**

Ramorola, (2014) mentioned several challenges of technology integration in the educational field such as unavailability of policy on technology, technophobia, insufficient resources, a lack of qualified technology teachers, maintenance and technical problems, risks and security problems, poor parental involvement, insufficient time, and computer jargon. This study revealed almost the same story. However, I found

that all the challenges are the common challenges that could happened in any circumstances when technology integration is involve. The following is the story of Anne, an English teacher in Indonesia when dealing with the challenges and also how she perceives the opportunities of using technology in teaching through the implementation of TPACK Framework.

### **Challenges in using TPACK framework for teaching English**

#### 1. IT literate

Term IT literate refers to individuals who have the knowledge and skills to use a computer and other related technology (Techopedia,2018). It also refers to the basic knowledge and skills required to run software products such as an operating system, a software application, or an automated web design tool. The IT literacy itself affects the implementation of TPACK framework in Teaching English since the focus of TPACK framework is related to the integration of technology with pedagogy and content knowledge of teaching (Mishra & Koehler, 2006). Therefore, the lack of this capability becomes a challenge for the teacher in using the TPACK framework for teaching English. She realizes that she must learn continuously about technology as she said,

"I have been teaching for almost 25 years and using technology is not something new for me. Even though I have familiar with the simple technology for teaching, it doesn't mean that I am a techno-savvy teacher. I need to learn since technology is rapidly changing, and somehow I realize that I always stay behind.

Anne realized that she is not a techno-savvy teacher and sometimes she feels left behind when it deals with the modernization. Although she has been using technology since a long time ago, Anne admitted that when it dealing with the technical issues, she still need help. Moreover, during the implementation of technology in the classroom, she is required to be the source of information about the technology or the application, which definitely required a good understanding of all technical matters regarding the technology. However, she admitted that mostly, the students are more capable of dealing with technical matters as she mentioned,

The technical problem is not an issue for me during the implementation of technology in the classroom as mostly my students are more capable of dealing with it. For instance, when I tried to connect the projector, in case it failed, my student could fix it in a moment.

She realized that students in this era are IT literate. They have sufficient knowledge about the technology because they deal with technology every day. She added that in

the school, each class management has the IT team which trained to fix the technical problem related to the technology. As a teacher, she never hesitated to ask for help and to learn about the technical matter from the student while continuing to learn from all available opportunities to learn as she explained,

I know that the world changes every second and as a teacher,, being up to date for the latest information is important in order to fit out myself with the knowledge of technology. I never missed any chance to learn from the workshop and any opportunities to make sure that I am ready to use any appropriate technology in my classroom.

For effective technology integration to take place, she realized that teachers need to be trained first. Therefore, besides browsing for the latest apps on the internet for teaching English, she also participated in the workshop which related to the technology for teaching, for example, the workshop about Edmodo and etc.

## 2. Internet connection and technical problem

When teachers willing to use the technology in the classroom, they should consider the factor such as the availability of internet connection. In this study, the workplace of the participant has supported all classroom with an internet connection. But sometimes, the connection does not work properly. This situation becomes a challenge for the teacher when they rely on the internet to apply the technology in the classroom. However, she realized that dealing with technology means that she need to be creative, especially in an unexpected situation such as unavailability of internet connection as she explained,

I am not good when dealing with technical matters or the hardware problems. If an error occurs, I would immediately ask for help from the students who are in charge to handle technical matters in the classroom. In this school, every classroom has a classroom' administrator team who is responsible for managing equipment in class and responsible to fix the error of the devices. If we cannot solve the problem, I called the school's officer who was in charge. Sometimes, they cannot fix the failure immediately because of the time limitation, or they need further coordination. If that was the situation, I would consider for replacing the teaching scenario with the backup scenario that I have prepared before.

Referring to what she mentioned before that there always be a backup scenario to overcome the unexpected situation, she always tries to control the situation when the technology doesn't support, or another failure happened. This demand shows that being a teacher not only about delivering the material, but also about how to be creative and wise to face any situation. Including when technology cannot function as it should be.

## 3. Creating the meaningful task

Creating the meaningful task using technology is another challenge for the teacher in applying the TPACK framework for teaching English. The integration of all aspects of TPACK should produce a meaningful task. She explained,

For me, TPACK framework is new. In my point of view, TPACK is more about designing a learning model. I understand that TPACK is a combination of technology, pedagogy and content in which these three aspect should be in balance.

Anne believes that when she could use technology with the right pedagogy to deliver the content, the meaningful task with technology is possible. She realized that in the past she only focus to gain the students' attention and motivation to learn by using the simple technology such as video or audio. On the contrary, when the role of technology becomes excessive, she knows that students will more focus on how to use the technology rather than how to comprehend the material. Deal with this challenge, again, teachers need to be creative but careful as she mentioned,

"Before using the application, I will check first and make sure that the application is suitable for the content and method. Sometimes, the content doesn't fit the application and I have to make some arrangement to make it fit. It takes time because I have to make sure that it will work."

Anne believes that being skeptical is quite good when she has to deal with the decision making regarding the use of technology or application for teaching. She explained that before using an application in class, she has to prepare it first in detail and try it by herself. She must ensure that the material to be delivered will be understood by students with the help of the technology or application she uses.

### **Opportunities for using the TPACK framework in teaching English**

#### 1. Motivate the teacher and students

Nowadays, technology plays a vital role in education yet, the massive change in technology and the emergent existence of the internet have changed students more than ever for the last decade. Today's students were born and grew up with developing technology, access to the internet anytime, anywhere available. They have become familiar with mobile phones, computers, digital cameras, console games, etc. as soon as they were born. As a result of these innovations, students are no longer thinking and getting the information as they may have had in the past. Technology has influenced students related to how they learn, how they get the information, think and communicate. Moreover, students have become cooperative, independent, tentative and

attached learners. This change including teaching method in learning English. Quoted what she said,

Nowadays, students are depending on the technology and as a teacher I cannot ignore that fact. Using technology could be the way to approach them. I know that they are happy when learn with technology. When they are happy, the result of learning would be better. As a teacher, when I have students with the good grade or achievement, it motivated me to improve, myself better in term of content delivery. Therefore, I need to learn more”

Anne added that during the first year of her teaching experience, she only focused on the use of textbook in the classroom as the only source of teaching material and as the guide for her teaching method. Even though she used video or audio for teaching listening, she felt that sometimes student are exhausted. She then realized that this situation did not stay long because the world is changing rapidly and it becomes a modern world, as well as the students, also have turned out to be the modern students. Technology also becomes a good opportunity because most of the student like challenges and to use technology in the classroom challenge the students. Moreover, the use of technology in the classroom has a good impact on teacher professional development, as she said,

As an experienced teacher, using technology, in this case through the implementation of the TPACK framework, is a good challenge for me since the framework requires understanding and creativity in order to make it works effectively in the classroom. Through this situation and demands, I learn plenty of things and it challenges myself to never stop learning about new technology.

For the English language teacher, she also realized that technology becomes challenging for teaching English, and the challenges could be a good thing for teacher' professional development.

## 2. Pleasant and flexible classroom.

Technology integration in the classroom has great potential as it encourages students to be more attentive in class, and more eager to learn. Moreover, technology can help teachers as well as students in making the classroom a fun and interactive place to learn.

Every time I use any technology or application in the classroom, which makes me happy is those smiling faces and enthusiasm in learning the material even the material is a new for them and difficult. In my classroom, students are allowed to use their gadget with some agreement. Therefore when my explanation is not enough, they are free to find it from another source using their device. Although some students may use the phone or gadget for their social media interaction, as long as they can follow the learning process, it will be okay.

She found that when the learning circumstances is fun, students will be ease and they always ask for extra time to learn. She explained that during the teaching and learning process, students are allowed to use their gadget such as laptop and mobile phone as long as they can follow the class well. She admitted that social media is a big distraction for the students, however they have made agreement about when and how they use the gadget in the classroom. She pointed out that when the students are happy they will have a good learning environment, highly motivated and have good enthusiasm in learning.

### 3. Various opportunity to develop multimodal products

Learning process is expected to provide tangible results for students. Not only the final score but hopefully a skilled based product,

I want my student to produce something that we called multimodal product which includes aspects such as text, audio, video, and image. To make it happen, I gave them a task in which to complete the task they have to use technology. For example, for the theme report text student should write a good report text or news in English, then they have to make a video recording to present the text or the news. After the recording, they should submit the result in the Google classroom application and post it on social media. I will give comment or feedback on social media.

In the classroom, students should produce something that meaningful. Anne mentioned that during her first time of teaching English, she only focuses on how the student can produce good writing, speak with good pronunciation and understand instruction in English. Lately, she felt that it wasn't enough for the student. They should produce a multimodal product. In her point of view, multimodal product means that all aspect of learning is included such as text, audio, video, and image. To make it happen, conventional teaching methods are certainly not appropriate. Therefore, using technology is the solution. She added that the activity was fun and encouraged them to be confident and share their work. Through the given task using technology, students have the opportunities to develop and produce multimodal products.

## **DISCUSSION**

Technology provides meaningful learning experiences (Costley, 2014). This is in line with the constructivism theory which suggests that humans construct knowledge and

meaning from their experiences (Maor & Roberts, 2011). In addition, TPACK model enables teachers transfer the content knowledge to the students and helps students learn better through the practice and their experience dealing with the technological term (Misirli, 2016). Hereafter, the finding of present study shows that the itegration of technology in the classroom especially for the English language classroom has good impact for the learning process and also for the learners in senior high school level (Costley, 2014; Lubis, 2018). Although, teacher deals with several challenges such as IT literate, technical issue such as internet connection, time allowance and also teacher deals with the question of how to create meaningful task. Those challenges is common in the teaching and learning process. This is where the TPACK framework has to be considered by the teacher because it helps teacher to deal with technology integration in the classroom (Bagueño, 2013; Kurt, 2018). However, providing technology resources without effectively integrating them into instruction will not produce better learners (Tolmie, 2001; Ziphorah, 2014). Unless simultaneous innovations occur in pedagogy, assessment, and other primary areas of education reform, technology by itself would not help improve education but instead continue to reinforce many educators' cynicism about fads based on magical machines (Dede, 2000; Ziphorah, 2014).

As mentioned before that TPACK framework should be considered in order to create the effective learning situation with technology. When technology fits the content, the teaching method has to support both the content and the technology. Bagueño, (2013) suggested that TPACK as the teachers' knowledge, allows them to integrate technology in the language class. Therefore, it has to promote and achieve communicative competence among students. To reach this goal teacher should be equipped with sufficient knowledge and IT literacy is demanded since they will take the role as the facilitator also the information provider in the classroom (Jagtap, 2016). For the novice teachers, things will be more natural if dealing with technology because they were born with technology itself. While for the old teachers, technology integration is difficult because they have to learn and change their perspective for the new knowledge of technology.

Furthermore, lack of facilities is another consideration for integrating the technology in the classroom. Teacher as the learning source be responsible of preparing the material, determining how the material is delivered and what are the technological tools that appropriate to help them for better delivery of the material. Afterwards, when it comes to the supporting facilities, it depends on the stake holder of the institution where the teacher teaches. If the institution supports the availability of technological equipment such as LCD projectors, computers / laptops and internet connections, then the teachers will be easier to integrate any application or technology for teaching. In this study, the institution has supported the classroom with the multimedia tool for each class. However, the problem is the internet connection and other technical issues caused by the insufficient multimedia tool. Therefore, teacher is forced to be creative and seek for another opportunities such us using her own internet data or using the blended learning which allows the student to work online at home.

In addition to this, having access to technology does not mean that students' academic abilities will change dramatically, but technology should be used to provide students with opportunities to enhance their performance. Moreover, creating a meaningful task which suitable with the provided application or technology is a big challenge for the teacher. Time for preparation is demanded before the technology is being used in the classroom. Since the TPACK framework is the unity of three main elements and the intersection among them, the teacher needs to be careful in choosing the technology. She has made sure that the pedagogy fits into the content and the technology should meet the need of the teacher to deliver the material effectively. If those aspects are failed to be balanced, the role of the technology will be exceeded. One professor once said during a presentation that technology should not be a replacement of the teacher in the learning process but technology should be an innovation or transformation of the teacher to be better in the teaching and learning process (So, 2019).

Furthermore, besides the challenges faced by the teacher, the technology integration in the classroom also brings good opportunities for the learning process and also for the teacher and students. First, a challenging task which motivated students to actively joining the classroom activity also motivates the teacher to develop better in term of her

personal development. Students in this the modern era were born with technology which makes them to always curious about the technology itself. When they are curious, they will search and they will learn about the technology while the teacher delivering the material as well. The teacher also has the opportunities for learning new things related to the technology in which they have not known before and improve themselves in term of their professional development. Second, it is believed that when some are happy in doing something, the result will be better than when he or she is being forced. Consequently, when students are happy during the teaching and learning process they will get better result (Willis, 2007). Therefore, Anne realized that to create a pleasant classroom environment, technology integration is one of the solutions in which could give the students opportunities to produce the multimodal product. In line with this, Himmelsbach, (2019) reported that by the integration of technology there are countless resources for enhancing education and making learning more fun and effective.

## **CONCLUSION AND RECOMENDATION**

In this article I presented the story of an English teacher who has experience in using the TPACK framework for teaching English in high school. The experience reveals the challenges and the opportunities when using the TPACK framework in EFL classroom as follows: First, related to the challenges of using the framework in the English language classroom, the teacher deals with IT literate, internet connection, and lack of ideas to create meaningful tasks using technology. Second, the opportunities for using the framework are challenging, fun and flexible, and various opportunity to develop multimodal products. Through these findings, I can conclude that in English language teaching, using the same method will not produce a good learning environment and without a good learning environment, the result will not be as good as expected. Therefore, technology comes with an attractive offer where provides the innovation that enables teachers and students to develop better. In this research, technology does not stand alone but it comes together with other aspects and the combination is called the TPACK framework that consists of three main elements and the four intersections among them. This framework gives a new perspective to the English language teacher in teaching English. However, the teacher should consider that during the implementation, there will be no perfect method or framework. There always weakness

and strength of every method and framework. The teachers need to be creative and take any good chance to combine any method or framework to get a better result.

The present study provides a fascinating insight into the use of TPACK framework in the EFL classroom, it has limitation in terms of field research, numbers of participants, and different point of view. Firstly, the TPACK framework actually is a framework applicable in any field of education. Therefore, further research of various field in education is needed to enrich the understanding of the framework. Secondly, in the present study, there is only one participant which makes the story does not vary. Everyone has a different experience even though it related to the same topic, therefore further research with numbers of the participant is needed in order to presents a varied story. Lastly, this study presents the story from the teacher point of view. How about the student?. Further research from a different point of view is needed in order to provide more perspective on the TPACK framework. Despite these weaknesses, the present study is a good input for the English teachers, institution and the researcher itself related to the application of the TPACK framework.

## REFERENCES

- Angeli, C., & Valanides, N. (2005). Preservice elementary teachers as information and communication technology designers: An instructional systems design model based on an expanded view of pedagogical content knowledge. *Journal of Computer Assisted Learning*, 21(4), 292–302. <https://doi.org/10.1111/j.1365-2729.2005.00135.x>
- Barkhuizen, G., Benson, P., & Chik, A. (2014). *Narrative Inquiry in Language Teaching and Learning Research*. New york: Routledge.
- Bugueño, W. M. R. (2013). *Using TPACK to promote effective language teaching in an ESL / EFL classroom*. University of Northern Iowa UNI ScholarWorks. UNIVERSITY OF NORTHERN IOWA. Retrieved from <https://scholarworks.uni.edu/grp/150>
- Chai, C. S., & Koh, J. H. L. (2017). Changing teachers' TPACK and design beliefs through the Scaffolded TPACK Lesson Design Model (STLDM). *Learning: Research and Practice*, 3(2), 114–129.

<https://doi.org/10.1080/23735082.2017.1360506>

- Chamorro, M. G., & Rey, L. (2013). Teachers' Beliefs and the Integration of Technology in the EFL Class Las creencias de los profesores de inglés sobre la integración de la tecnología en la clase. *Colombian Journal for Teachers of English*, (October), 51–72. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1128086.pdf>
- Chien, C. W. (2016). Taiwanese EFL undergraduates' self-regulated learning with and without technology. *Innovation in Language Learning and Teaching*, 13(1), 1–16. <https://doi.org/10.1080/17501229.2016.1264076>
- Clandinin, D. J. (2006). Research Studies in Music Education. *Society for Education, Music and Psychology Research Additional*. <https://doi.org/10.1177/1321103X060270010301>
- Costley, K. C. (2014). The Positive Effects of Technology on Teaching and Student Learning. *Telematics and Informatics*, 19(1), 27–40. <https://doi.org/10.1177/1742766510373715>
- Cox, S., & Graham, C. R. (2009). Using an Elaborated Model of the TPACK Framework to Analyze and Depict Teacher Knowledge, 53(5).
- Ertmer, P. A., & Newby, T. J. (1993). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly*, 26(2), pp.43–71. Available at: <http://search.proquest.com/doc>. *Performance Improvement Quarterly*, 6(4), 43–71. <https://doi.org/10.1002/piq>
- Guymon, D. (2014). The 5 Steps of Effective Technology Integration. Retrieved July 13, 2019, from <https://www.gettingsmart.com/2014/02/5-steps-effective-technology-integration/>
- Himmelsbach, V. (2019). Technology in the Classroom in 2019: 6 Pros & Cons The pros: Retrieved July 17, 2019, from <https://tophat.com/blog/6-pros-cons-technology-classroom/>
- Jagtap, P. (2016). Teachers Role As Facilitator in Learning. *Scholarly Research Journal*, 3(17), 3904–3905. Retrieved from [www.srjis.com](http://www.srjis.com)
- Koehler, M. J. (2010). The History of TPACK 1999-Present (2010). Retrieved April 22, 2019, from [http://matt-koehler.com/hybridphd/hybridphd\\_summer\\_2010/wp-](http://matt-koehler.com/hybridphd/hybridphd_summer_2010/wp-)

content/uploads/2010/06/history\_of\_tpack.pdf.

- Koehler, M. J., & Mishra, P. (2009). What is Technological Pedagogical Content Knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60–70. <https://doi.org/10.1177/002205741319300303>
- Lehiste, P. (2015). a Study From Estonia. *Problems of Education in Th 21st Century*, 66, 18–28.
- Lin, T. C., Tsai, C. C., Chai, C. S., & Lee, M. H. (2013). Identifying Science Teachers' Perceptions of Technological Pedagogical and Content Knowledge (TPACK). *Journal of Science Education and Technology*, 22(3), 325–336. <https://doi.org/10.1007/s10956-012-9396-6>
- Liu, S., Liu, H., Yu, Y., Li, Y., & Wen, T. (2014). TPACK : A New Dimension to EFL Teachers ' PCK. *Journal of Education and Human Development*, 3(2), 681–693.
- Lubis, A. H. (2018). Ict integration in 21st-century Indonesian english language teachingmyths and realities. *Cakrawala Pendidikan*, 37(1), 11–21. <https://doi.org/10.21831/cp.v37i1.16738>
- Maor, D. (2003). Teacher's and students' perspectives on on-line learning in a social constructivist learning environment. *Technology, Pedagogy and Education*, 12(2), 201–218. <https://doi.org/10.1080/14759390300200154>
- Maor, D., & Roberts, P. (2011). Does the TPACK framework help to design a more engaging learning environment? Literature Review: Why are we using the TPACK framework? In *World Conference on Educational Multimedia, Hypermedia and Telecommunications*. Chesapeake, VA.: Research gate.
- Mareco, D. (2017). Ten Reasons Today's Students Need Technology in The Classroom. Retrieved July 10, 2019, from <http://www.securedgenetworks.com/blog/10-Reasons-Today-s-Students-NEED-Technology-in-the-Classroom>
- Mishra, P., & Koehler, matthew J. (2006). Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- Misirli, Z. A. (2016). Integrating Technology Into Teaching and Learning In. D William. *Ihlara Journal of Educational Research*, (December), 37–48.
- Niess, M. L. (2011). Investigating TPACK : Knowledge Growth in Teaching with Technology, 44(3), 299–317. <https://doi.org/10.2190/EC.44.3.c>

- Olatoye, M., Nleya, P., & Batane, T. (2013). Effective classroom management and the use of TPACK: Implication for pedagogical practices. *Journal of Education and Practice*, 4(15), 119–125. Retrieved from <http://www.iiste.org/Journals/index.php/JEP/article/view/6829>
- Ramorola, M. Z. (2014). Challenge of effective technology integration into teaching and learning. *Africa Education Review*, 10(4), 654–670. <https://doi.org/10.1080/18146627.2013.853559>
- Redmann, D. H., & Kotrlik, J. W. (2004). Analysis of Technology Integration in the Teaching-Learning Process in Selected Career and Technical Education Programs. *Journal of Vocational Education Research*, 29(1).
- Richard, J., & Lochart, C. (1996). *Reflective Teaching in Second Language Classrooms* (15th ed.). New York: Cambridge University Press.
- Schmidt, D. A., Baran, E., Thompson, A. D., Mishra, P., Koehler, M. J., & Shin, T. S. (2009). Technological Pedagogical Content Knowledge (TPACK): The Development and Validation of an Assessment Instrument for Preservice Teachers. *Journal of Research on Technology in Education*, 42(2), 123–149. <https://doi.org/10.1007/978-1-60761-303-9>
- Shulman, L. (1986). Those Who Understand: Knowledge Growth in Teaching. *Journal of Curriculum Studies*, 15(2), 4–14.
- So, H.-J. (2019). *TPACK ( Technological Pedagogical Content Knowledge ) and Multimodal Literacy in Education*. Surakarta.
- Taopan, L. L., Drajadi, N. A., & Sumardi. (2019). Discovering the teacher's beliefs in TPACK framework for teaching English in high school. *Indonesian Journal of Informatics Education*, 3(1).
- Waddel, J. (2015). The role of the teacher in the educational process. Retrieved July 10, 2019, from <https://edwp.educ.msu.edu/green-and-write/2015/the-role-of-technology-in-the-educational-process/>
- Willis, J. (2007). The Neuroscience of Joyful Education. *Educational Leadership*, 64(1), 26–33.
- Ziphorah, R. M. (2014). Information and Communication Technology Integration: Where to Start, Infrastructure or Capacity Building? *Procedia - Social and Behavioral Sciences*, 116, 3649–3658.

<https://doi.org/10.1016/j.sbspro.2014.01.818>

### **Acknowledgment**

This research is supported by LPDP scholarship program

### **Author Biography**

**Lita Liviani Taopan** is a master student in Universitas Sebelas Maret (UNS) and an awardee of LPDP scholarship. Her current research focuses in narrative inquiry and teachers' belief in technology integration for teaching. (Corresponding author)

**Nur Arifah Drajati** currently teaches undergraduate and graduate student in UNS. She contributed to book chapters and researches on the area of TPACK, literacy and informal digital learning.

**Sumardi** teaches undergraduate and graduate student in UNS. His research interest is in evaluation and assessment in teaching. He is a reviewer in several journal of English language teaching in Indonesia and some countries.