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TEACHERS' TPACK PRACTICE OF ENGLISH BLENDED LEARNING COURSE IN THE MIDST OF COVID-19 PANDEMIC

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ABSTRACT

This study aims to examine teachers' TPACK knowledge in practice that used in blended-learning course. This study employs a qualitative descriptive research design to analyze phenomena in the teaching and learning process. The observation focused on the three components of TPACK in practice included technological tool, content material, and learning activity. Furthermore, the finding shows that teachers promoted 22 and 24 of the 33 TPACK criteria in practice, which represented the TPACK knowledge. This means teachers have achieved more than 50 % of criteria which representing the TPACK knowledge in practice. In conclusion, the TPACK knowledge help teachers conducted an effective teaching with technology as teachers were able to apply the framework of TPACK in practice during the blended learning activity.

Keywords: Blended-learning, Content Knowledge, Pedagogical knowledge Teachers' Knowledge, Technological Knowledge, Technology Integration TPACK

INTRODUCTION

The sophisticated function of technology has been reached many aspects nowadays. One of technology functions that greatly developed is in educational aspect which has been proved to be one of main roles recently. This is due to Corona Virus Disease or COVID-19 pandemic which forced people to work and learn from home (Mishra & Warr, 2021). COVID-19 outbreak has spread quickly and affected many aspects of social economic including job, business and education. The school and campus activities have been shut down from the face-to-face meeting. Many people have infected by COVID-19 and it made the government in many countries to take a new policy as the prevention of spreading the outbreak. Indonesia is one of those; the government and the Ministry of Education has decided to launch a new policy regarding learning from home since March 2020 by conducting "*E-Learning or Online Learning*" (Menteri Pendidikan dan Kebudayaan RI, 2020). This policy required teachers to design online learning for the time being and the near future which cannot be predicted.

However, the sudden condition influenced the teaching and learning process. Teachers and students did not have any preparation to change and adapt the new teaching and learning strategy. There became an issue and ambiguous regarding what kind of content that appropriated with the online learning, how learning strategy will be conducted, and also what kind of technology tool to support in establishing online learning activities (Ali, 2020). Both teachers and students are struggling to face the new education system as respond to COVID-19 which turning into full online activities. According to Jamal (2020) who investigated the readiness of teaching online strategy in one of senior high schools, the e-learning tendency factor has lower value than the other factors of learning readiness during the pandemic. He stated that it needs more improvement in e-learning tendency factor of readiness. Moreover, the readiness of online learning is not the only issue faced by the institution and the government. Another problem is related to teachers' problem.

Teachers are the one who responsible on how online learning will be conducted. It is stated that teachers are responsible not only on student academic needs but also students mental health and social emotion (Reimers & Schleicher, 2020). Therefore, the new policy of learning from home should be followed by the availability of technology tool and teachers knowledge regarding how to conduct online learning. Technological knowledge will help teachers to conduct teaching and learning with technology effectively. In line with this (Voithofer & Nelson, 2021) agreed that the ability of technology improve students' learning is depended on how teachers practice their TPACK knowledge. TPACK is developed by Koehler & Mishra which previously only consisted of pedagogy and content knowledge as proposed by Shulman (Tseng et al., 2020). By adding the

technology knowledge integrated with pedagogy and content, this combination is aimed to help teachers in conducting teaching with technology.

Furthermore, teachers' knowledge of TPACK provides rich information related to teachers capability in teaching with technology. A study evaluated relation between teachers' TPACK level and teachers' self efficacy in integrating technology, technology literacy and the usage objective of social network. The finding show that the most significant impact is on the teachers' self efficacy in integrating technology (Durak, 2019). On the other hand, study about teachers' perspective of TPACK rated higher in three aspects included the knowledge of content, pedagogy, and content pedagogical knowledge but not on technological knowledge (Aniq et al., 2019). It means, TPACK knowledge in Indonesia remains unexplored. Different from this condition, TPACK studies have been developed in various countries and focus aspect such as teachers' perspective and teachers' self-efficacy. A study with 127 samples is aimed to examine teachers' perception of the seven frameworks TPACK towards pedagogical practice has been conducted by (Reyes et al., 2017). The finding revealed that there is a gap related to educational future concept of teaching 21st century around the theory of TPACK and the actual integration of TPACK. They added that it still needs clarification and discussion regarding the theory of TPACK among policy makers, university-administrator, and teacher-educators.

Referring to several research that have been conducted above, research of TPACK in teacher teaching practice to evaluate the teachers' level of TPACK has not been explored especially in Indonesia. The teachers are demanded to have ability in teaching with technology to face the new challenge of 21st Century skill and the condition of pandemic which changed education activity into fully online learning. Therefore, this study is aimed to examine teachers' knowledge of TPACK used in English blended learning course. Since, teachers' TPACK knowledge provided information regarding the ability of teaching with technology. It is focused on how teachers use technology and learning strategy to teach the material they provide. This study purposefully evaluated two teachers who have not been introduced to the framework of TPACK before who teach for English Course in one of universities in Surabaya. This study will answer the question of how teachers' TPACK practice in the teaching and learning process of English Blended Learning Course.

LITERATURE REVIEW

Technological Pedagogical Content Knowledge (TPACK)

The use of technological tools in education has been widely addressed in recent years, the question of whether and how technology effect students learning and higher education remains the same, with little progress (Ali, 2020). Despite the fact that technology has advanced dramatically, its application in education has not kept pace. Teachers frequently see themselves as inadequate in terms of integrating technology and do not provide proper training in this area (Wang et al., 2018). This situation forces teachers to develop the method for integrating technology-enhanced classroom activities despite their reluctance. Furthermore, incorporating technology into learning activities is thought to be a difficult task for teachers. It required the acquisition of a variety of complicated knowledge by teachers (Rahimi & Pourshahbaz, 2019). There is also no single technology that is ideal for all types of teachers in all classroom settings and instructional situations. In this scenario, teachers must gain a deeper grasp of both the affordance and the barrier to integrating technology into the classroom.

Understanding the barriers and affordances of integrating technology can assist teachers in creating effective blended-learning with technology. Furthermore, the TPACK framework, which stands for Technological Pedagogical Content Knowledge, discusses the integration of technology in teaching. Koehler & Mishra presented TPACK as a development of Shulman's idea of pedagogical content knowledge (Tseng et al., 2020). The teacher's expertise of integrating technology into learning activities and as part of the teacher's knowledge base is the main point of TPACK. One of the requirements for teachers in conducting the effective teaching is several categories of basic knowledge (La Velle & Flores, 2018). Furthermore, the experts stated that the conceptualization of a teacher's knowledge base is challenging since it connects to other teaching domains such as understanding teaching and learning activities, conceptualizing topic knowledge, and understanding how knowledge is conveyed. This teacher knowledge base is made up of intricate relationships between numerous primary categories of knowledge, such as content, pedagogical, and technology information.

TPACK is described as technology-enhanced learning, which includes three complicated relationships between content, pedagogy, and technology. It is a phrase for a skill that a teacher must master in order to effectively use technology into the teaching and learning process (Yeh et al., 2021). Blended learning, in particular, requires the integration of technology, as well as the design of classes that include online activities. This prerequisite should be in line with the teacher's competence and knowledge of TPACK. As it have disconnected between what teachers expect and their capacity to teach in practice. The integration of ITC in

teaching practices, according to Reyes et al. (2017), produced a deep gap with their perception of TPACK. In this scenario, understanding TPACK information is critical for blended-learning teachers. The more teachers are exposed to TPACK, the more difficult it will be to provide teaching strategies that use technology (Valtonen et al., 2020). As a result, teaching methods will change, and students will be more interested in studying the material.

Blended-Learning

Blended learning is a learning technique that combines two modes of learning included traditional classroom learning and online distant learning (Li et al., 2020). It has been implemented at all levels of education, including higher education. Blended learning has grown in popularity as the necessity to integrate technology has become a top focus for various level of education (Rasheed et al., 2020). Furthermore, the investigation related to blended learning effectiveness have been expanded in the last ten years (Müller & Mildenberger, 2021). It is reported that the growth of technology and skills that are promoted by the needs of the recent era have influenced blended-learning strategies. The benefit of blended learning integration has been proved in various topics including students' outcome, student's autonomy and self-direct learning, professional learning and many others. Learners require learning experiences that aid in the development of their skills, and blended-learning meets these requirements.

Blended learning, on the other hand, provides a variety of learning styles as well as a variety of material resources. Furthermore, as technology advances, so do the possibilities for conducting blended-learning. There are various model of blended learning including flipped learning, station rotation, lab rotation, flex, ala carte and enriched virtual (Hrastinski, 2019). Blended learning has affected the way learning activity is carried out. Between 1990 and 2010 blended learning focused on the classroom instruction (Müller & Mildenberger, 2021). In the year 2000, it was characterized by a study on the efficiency of blended learning in a French language course. Between 2000 and 2005, there was an increase in blended-learning research, and between 2003 and 2006, the integration of face-to-face and online learning began to be examined (Chapelle & Sauro, 2017). However, the same authors said that the majority of blended-learning studies focus on the effectiveness of online learning versus offline learning strategies. Research on the usefulness of blended learning in improving language skills has been growing in recent years. Yang & Kuo (2021) investigated EFL students' global literacy through blended learning program which focused on cross-cultural communication. The findings revealed that blended-learning program provides opportunity to communicate, build, share and use new insight related to global literacy with the outcome of student's autonomy and English skill improvement.

RESEARCH METHOD

The information was gathered from classroom interactions in an English Blended Learning Course at one of Surabaya's institutions. The English blended learning course is a curriculum designed for first and second semester students at this university. Blended learning course used in this study involved two kinds of teaching strategies. Those were included offline face to face classroom activity and students' independent online learning through "English Discoveries Platform". However, due to global pandemic of Covid-19, the face to face activity changed into virtual meeting through zoom meeting. The data in this study is limited only two blended learning teachers who just started teaching with technology for academic year 2020/2021. The information was gathered in two fundamental classes which used several technologies such as English Discoveries platform as the main technology integration. Other additional technologies such as Google classroom, PPT, Kahoot, Video recording, audio of podcast were also used during the learning process.

In addition, the researcher employed a descriptive qualitative method to examine the data collected in this study. The key data to be analyzed in this study was the phenomenon of teaching practice that happened in the natural setting of teaching and learning activity. As the data is taken based on the TPACK framework theory, the data was observed in particular of classroom interaction which included the teaching approach, the subject or learning content, and the technology tools used. The data was collected through field notes taken while watching classroom interaction during the learning process. Another piece of information obtained from the English platform that provided detailed information regarding the learning goal and material.

Moreover, the collected data were analyzed by using theory of TPACK-in practice. In order to get information regarding teachers' TPACK practice in providing technology-enhanced activity, the observation was conducted four times for each teacher. TPACK knowledge is related to the way teachers designing learning with technology. In this case, technological, pedagogical and content knowledge are the three main components observed in the teaching process. Instructors' TPACK practice could Jamani and Figg developed the TPACK instrument in practice. This included three primary qualities that indicated teachers' TPACK knowledge. These are TPCK in practice, TCK in practice, and TPK in practice. All those three qualities provided several characteristics leading to success. Furthermore, each characteristic has several samples of teachers' action that could be observed in the learning process. The framework of TPACK in practice was shown in the table below.

Table 1. Framework TPACK in Practice

Component of TPACK in Practice	Characteristics Leading to Success	Samples of Teacher Actions in Practice
TPCK in Practice (Knowledge about how to design technology-enhanced instructional experiences for different models of teaching (e.g., Direct Instruction, Problem-based Learning, Inquiry-based Learning) to meet content learning goals)	Repertoire of technology-enhanced activity types representing content knowledge	Analyze structure of technology-enhanced activity type
		Select most effective technology- enhanced activity type
	Knowledge of content-based models of teaching appropriate for technology-enhanced activity types	Analyze type of knowledge to be learned
		Select appropriate Model of Teaching for technology enhanced instruction
TCK in Practice (Knowledge about content-appropriate technologies (knowledge of tools of a discipline and ability to appropriately repurpose tools across disciplines) and teachers' ability to use the tool (personal attitudes, skills, and comfort level with these technologies)	Knowledge of content appropriate technologies (see section called knowledge of content-appropriate technologies)	Matching discipline-specific tools to content
		Repurposing tools of other disciplines to match the content
	Competence with content-appropriate technologies (see section called competence with content-appropriate technologies)	Identifying technical skills needed for discipline-based tool use
		Identifying personal skill levels of tool use
TPK in Practice (Knowledge of practical teaching competencies (use e.g., classroom management, differentiated support, and assessment) to plan and implement technology-enhanced lessons)	Assessment	Match assessments to technology-enhanced learning activities
		Create assessment instruments using technology
		Use technology to conduct assessments
	Activity choices	Select activities based on subject matter learning outcomes/goals
		Incorporate a variety of technology-based activities
		Refine activities through collaborative review
	Sequencing	Build technology and content skills within lesson and unit
		Develop technical skills in increments through content activities
	Differentiation for technical competence	Introduce few technical skills in a lesson
		Chunk technical skills into simple procedures
		Adapt lesson or online activities

		for students
		Create specific learning objects for students
		Use of technology enhanced activities with multiple modes
	Backup instruction	Plan alternate lesson activities
		Plan for alternate technologies
	Technology practice	Practice with technological tools in instructional settings
		Obtain peer feedback
	Digital classroom Resources for teacher and student use Collect online resources in link list or Diigo site	
	Modelling technology Use To and For Students	Model best practices for technological tool use
		Model generic functions across applications
		Use teacher-created exemplars
		Have students model technical skills
	Classroom management	Use grouping techniques to support technical skill and content development
		Use appropriate demonstration techniques in technology-enhanced lessons
		Use techniques for engaging students with technology during lessons

Teachers' knowledge of TPACK could be seen from the teaching practice and analyzed by using this framework. TPACK in practice involved three components included TPCK in practice, TCK in practice and TPK in practice. As presented in the table each component has characteristics leading to success and each characteristic provided several samples of teacher's action. This study used teacher's action of this table to analyze teachers' teaching practice of TPACK knowledge. Observation checklist and explanation about the activity of teaching interaction were used during the evaluation of TPACK knowledge. The researcher observed the teaching practice four times for each teacher to collect the data from the online virtual meeting.

FINDING

During the teaching and learning process, both teachers not only used one technology tool of ED platform but also combining several technologies tools such as PPT, Google Classroom, Kahoot and also WA. Teachers supported students' activity with different technology tool for different purpose. Teachers used GC to introduce the material by posting several questions or file, and then used PPT to deliver and explain the material. In the end of activity, teachers

engaged students to have quiz related to the topic through kahoot. Before, closing the activity, teachers reminded students to do the practice provided in ED platform at home. In addition, based on the observations of two teachers, the finding showed that teachers promoted 22 and 24 out of 33 samples action based on the theory. The finding is presented in the following table based on the three components of TPACK in practice.

The first aspect showed in table is TPCK which refers to the understanding of how teachers integrated technology teaching into various learning models that are appropriate for the learning aim. The collection of technology-enhanced activity types for learning and understanding of based-model teaching for technology integration were two aspects of TPCK in practice. These two characteristics were defined in a teaching practice activity that included analyzing the structure of technology for learning type, selecting the most effective technology for learning, analyzing the type of content material, and selecting the most appropriate model of technology for instruction. Teachers' actions in identifying the sort of material are referred to analyzing the content of material whether it is included on conceptual, factual, metacognitive or procedural.

Table 2. Teachers' Observation Checklist

TPACK in Practice	Samples Criteria of Teacher Actions in Practice	T1	T2
TPCK in Practice	Analyze structure of technology-enhanced activity type	-	-
	Select most effective technology- enhanced activity type	✓	✓
	Analyze type of knowledge to be learned	-	-
	Select appropriate Model of Teaching for technology enhanced instruction	✓	✓
TCK in Practice	Matching discipline-specific tools to content	✓	✓
	Repurposing tools of other disciplines to match the content	✓	✓
	Identifying technical skills needed for discipline-based tool use	-	-
	Identifying personal skill levels of tool use	-	-
TPK in practice	Match assessments to technology-enhanced learning activities	✓	✓
	Create assessment instruments using technology	-	-
	Use technology to conduct assessments	✓	✓
	Select activities based on subject matter learning outcomes/goals	✓	✓
	Incorporate a variety of technology-based activities	✓	✓
	Refine activities through collaborative review	-	-
	Build technology and content skills within lesson and unit	✓	✓
	Develop technical skills in increments through content activities	✓	✓
	Introduce few technical skills in a lesson	✓	✓

	Chunk technical skills into simple procedures	✓	✓
	Adapt lesson or online activities for students	✓	✓
	Create specific learning objects for students	-	-
	Use of technology enhanced activities with multiple modes	✓	✓
	Plan alternate lesson activities	✓	✓
	Plan for alternate technologies	✓	✓
	Practice with technology tools in instructional settings	✓	✓
	Obtain peer feedback	-	-
	Collect online resources in linklist or Diigo site	-	-
	Model best practices for technology tool use	✓	✓
	Model generic functions across applications	✓	✓
	Use teacher-created exemplars	✓	-
	Have students model technical skills	✓	-
	Use grouping techniques to support technical skill and content development	✓	✓
	Use appropriate demonstration techniques in technology-enhanced lessons	✓	✓
	Use techniques for engaging students with technology during lessons	✓	✓

Teachers performed two criteria in the TPCK in practice that were observed in the teaching practice**.** Those are **s**electing successful technology-enhanced learning and selecting a suitable teaching style for technology instruction. Teachers chose effective technology for learning because both of them used a variety of technical tools to assist online learning. Teachers employed a variety of electronic resources, including English Discoveries, Google Classroom, Google Meeting, Zoom Meeting, Power Point, YouTube videos, and podcasts. Furthermore, teachers employed and integrated various technology instruments with varied purposes and activities.

Teachers used PPT for teaching grammar or sharing reading and writing materials, video/audio recording for teaching listening and speaking, and ED is used for student practice. The combination of audio recording and video may be the best method for teaching students how to listen in situations where they require some input before they can improve. Students' speaking skills were assessed using the model and example offered by the speaker on YouTube and audio. This is one of the criteria used to identify acceptable model learning based on instructors' knowledge of content-based models. The usage of audio recording is intended for teaching listening when students must determine whether the sentence said in the recording corresponds to what they are thinking. Students were given the best model of how to speak like a native speaker in this scenario.

The second criterion is Technological Content Knowledge in practice. TCK is described as knowing how to use technology that is appropriate for the content. This included understanding of technical tools as well as the ability to

experiment with the use of technology for various learning objectives. The knowledge and teachers' competency in content-appropriate technology are among the criteria of TCK knowledge. Teachers' actions of matching specific learning tools and content, as well as repurposing technology used for other topic material, revealed their knowledge of content-appropriate technology. TCK also includes instructors' knowledge of content-appropriate technology in practice. This competence could be observed by the action of teachers in the teaching and learning process which included identifying technical skill regarding how to use technological tool and identifying personal skill level of the use technology.

There are only two actions are found in the observed lesson based on the four sample actions. Matching technology to specific learning goals and modifying technical tools to promote learning are two of them. Teachers used specific technologies to teach students about a specific learning objective. To teach listening skills, the teacher used podcast audio of a native speaker. This signifies that the podcast selection corresponded to the listening skill learning content. Since the native speaker in the podcast provided a real-life example of a conversation and how to pronounce the sentence, students were able to learn more effectively. Podcasts also offered a variety of material domains from which teachers may select according on the needs of their students. Teachers' efforts to support students' learning revealed the appropriateness of technology and learning content. Further, another sample action is repurposing a technical tool that was previously utilized for multiple disciplines. One of them is the evidence of incorporating podcasts into teaching and learning activities. The usage of YouTube videos and Instagram in the learning process is another example of this model activity. Neither of these applications is designed for teaching and learning. Teachers, on the other hand, modified YouTube's function for material examples and Instagram's function for adding descriptive text alongside the photo submitted. In this situation, Instagram's social media function is repurposed as a learning tool. Podcasts were created for pleasure and substance rather than for instructional purposes. Teachers were able to repurpose the usage of podcasts that suited the learning material in this scenario.

The third criterion is TPK which required a combination of technological and educational understanding. This knowledge included everything that was important in the teaching and learning process, such as lesson planning and implementation, learning techniques and strategies, student evaluation, learning, and classroom management. The planning, preparation, and implementation qualities of leadership success of this knowledge are classified into three categories. The planning characteristics found in the observed lesson were involved assessment, activity selection, sequencing, and technical competency differentiation. All of these qualities resulted in a number of example activities

that could be monitored during the learning process and served as the foundation for creating successful technology-enhanced learning.

Moreover, the preparation characteristic comprised of two characteristics: technological practice and digital classroom tools. Technology practice aided two sample instructors' actions, which included using a technological instrument in the classroom and receiving peer feedback. However, just one action was discovered during the teaching practice that was related to the use of a technology practice tool in the classroom. The teachers did not illustrate how to obtain peer input. Teachers and students both experience using the technology tool during the learning session. In the online meeting, teachers explained and demonstrated how to use technology tools. This includes the use of ED features such as the writing tool, the speaking tool, and the magazine features. Teachers not only taught how to use it, but also demonstrated it in action. Digital classroom tools for instructors and students are also a feature of TPK in practice of preparation. Collecting resources from online sources of material in Linklist or Diggo bookmarks is an example action in this trait. Teachers used and blended materials from a variety of sources, including teach-this.com, podcasts, YouTube, busyteachers.com, and learnenglish.britishcouncil.org, among others. Teachers, on the other hand, did not gather and deliver those resources for pupils during the meeting.

Furthermore, the implementation characteristic was consisted of two features of successful technology-enhanced activity implementation. Those two were in charge of creating a technology tool for pupils to use as well as classroom management. Modelling the use of technology was aided by the actions of four teachers. Three examples of teachers' actions were included in the classroom management section. Modelling the use of technology sample actions included modelling technological tool practices, providing a model of technology for various purposes, providing a teacher-created example, and asking students to model the use of technological tool. Teacher 1 completed all four samples of action, whereas the other teacher completed only two samples of model the practice and growing the use of technology into other functions.

DISCUSSION

TPCK in Practice

TPCK in practice was defined as the understanding of how to develop technology that may be utilized as an educational tool for various learning models (Rahimi & Pourshahbaz, 2019). This approach possessed two traits that contributed to its success: collection technology for learning that displayed the content material and knowledge of the content material that was compatible with the technology. These two characteristics resulted in four action samples. Analyzing the framework of technology type for learning, selecting the effective

technology for learning, analyzing the kind of content material, and selecting the appropriate model of technology for instruction are examples of sample actions covered in both characteristics. Teachers did not encourage the two sample actions of examining the technology utilized for successful learning and analyzing the type of content material in their teaching practice.

Teachers chose the most effective technology for learning by examining the fit between the technological tool and the topic material being taught. Teachers aided in the teaching process by customizing a variety of technology tools to the activity and purpose. Understanding the purpose of technology tools is believed to have aided teachers in selecting appropriate technology-enhanced learning that benefits students (Tavares & Moreira, 2017). Teachers used ED, GC, PPT, Zoom Meeting, Kahoot, and other tools such as Whatsapp, Instagram, Podcasts, Video, and Audio. The tactics for using those tools were determined by both the topic and the activity. Teachers, for example, utilized GC to exchange materials, host a discussion forum, and submit student work. The content material and the function of the technology tool were used to determine the activity and instructional technique. The way teachers integrated and used technology revealed their knowledge in practice. This aligns with typical teachers who are conversant with the usage of various technologies and have successfully implemented the proper tool for their learning objectives (Choi & Young, 2021).

Another example of a teacher's action is choosing an acceptable teaching model of technology used that is aligned with the learning goal. As it is explained that TPACK related to teachers activity in selecting the type of pedagogical activity that matched with learning objective (Mouza et al., 2017). This included applying technology to develop and improve students' learning. Since, the power of technology usefulness is depended on teachers' ways in integrating technology in the practice (Voithofer & Nelson, 2021). Teachers employed technology that was appropriate for the topic and learning objective. Several technological lessons were observed in the observed session, including a podcast used to teach listening and a YouTube movie utilized as the material in a spoken learning activity.

The choice of tools was made in accordance with the specific learning aim in the area of listening skill. Students needed input from sample hearing from a variety of languages, so the podcast offered a variety of listening material with several language variations. It is believed that the beneficial technology in education context is seen from the ability to represent and support the teaching and help students learning (Su & Zou, 2020). The technology selection in the observed learning is appropriate for the learning objective and is designed to assist students in learning the topic. Podcasts and videos are very useful for training listening and speaking skills.

TCK in Practice

TCK in practice is concerned with technological knowledge and content material as a combination in practice. This is primarily concerned with teachers' ability in selecting the appropriate technology tool to present the specific topic (Tavares & Moreira, 2017). The Knowledge and competence in content appropriate technology are two aspects of leading success highlighted in this TCK in practice. Knowledge of content-appropriate technology resulted in two examples of action: matching the use of a specific tool with the content and reusing other discipline tools with the content material. Identifying technical skill and personal level skill required for technology tool use are the other two examples of action in the characteristic of competence content-appropriate knowledge.

Furthermore, teachers promoted the matching technology tools and repurposing technology from different disciplines. Teachers' usage of technology in conjunction with content material was examined in terms of how they employed technology to achieve their learning objectives. The conventional technology is employed for its intended function and teachers are asked to adopt the innovative strategy that appropriate with the learning theory and objective (Choi & Young, 2021). Teachers encouraged students to learn by using technology that was appropriate for the learning objective. Specific technology was employed for specific academic material, such as using ED as a practice activity for students, using audio recording for listening skills, and using a speaking tool for speaking skills. The technology that supported students' study of ED was specifically designed for English learning, and students practiced all English skills in ED. For students' listening exercise, audio recording is widely employed. Teachers in this situation offered a specific technological instrument that was suited for the substance of the curriculum.

Moreover, teachers gave specific technology that was previously used in other disciplines to meet with the topic material. The implementation of various technology provide many different ways to deliver the material and support students communication (Tavares & Moreira, 2017). Teachers offered technology that was designed to be used in the classroom. Podcasts, YouTube, and Instagram are just a few of the technology tools available. These tools are not intended for use in teaching and learning activities. As a result, the usage of these tools is included in the example action of repurposing technology that is appropriate for learners. Repurposing technology included the ability to modify the use of technology that matched with the learning goal. It is in line with the technology standard requirement for teachers that focused on basic technology skill to adapt constructive approach for technology instruction (Voithofer & Nelson, 2021). One example of repurposing technology for pedagogical purposes is using Instagram

to post and create descriptive text. Teachers must be aware that different technology tools have varied functions and applications. The successful use of technology for learning was demonstrated by getting to know and be familiar with technology for various disciplines (Valtonen et al., 2020). One of the hallmarks of content-appropriate technology knowledge is the ability to reproduce function for other areas of function. Teachers, on the other hand, did not have the ability to create technology-appropriate coursework. Because the sample action entailed determining technical and personal level skills related to the technology in use. This identifying activity was meant to show up in teachers' practice before they started teaching, and it was usually processed in their minds.

TPK in Practice

TPK is a term that refers to the ability to apply technological and pedagogical skill which appropriate with the context of teaching and students' situation (Huang & Lajoie, 2021). This knowledge centred on the use of technology as an instructional method, which included classroom management techniques and the organizing of teaching strategies. Knowledge of technology related teaching which included the planning, preparation, and implementation of technology used for learning (Sailer et al., 2021). These three primary features were used to reflect teacher' TPK in practice. The first feature is planning, which consisted of five categories for designing technology-assisted learning. Assessment, activity selection, sequencing, technical competency differentiation, and backup training are some of these. For the assessment characteristic, teachers promoted two of the three qualities, according to the findings. One of them is to match evaluation with technology education. This attribute referred to teachers' capacity to select the type of assessment instrument that was most appropriate for the technology-enhanced learning aim (Seufert et al., 2021). This means that assessment criteria should be tailored to the type of technology utilized and the learning objective.

Moreover, teachers only performed two sample actions in the activity choice characteristic. Those are selecting activity that is appropriate for learning material and incorporating technology resources for learning. Teachers offered technology tools that were intended to be used for a specific learning objective. PPT was utilized by the teachers as a discussion tool. The activity discussion using PPT is acceptable because it allows teachers and students to share ideas about the topic. For the specific learning goal of listening, the activity of filling in the blanks and listening comprehension utilizing podcast is appropriate. It is noted that learning using technology improve students ability to think more effectively and train their creativeness regarding to the lesson (Santos & Castro, 2021). In addition, teachers implemented a variety of technological tools to support the

learning activity which included in incorporating various technology of sample action. These technologies were employed not just during the course, but also for specific learning objectives. Teachers used GC, PPT, and Kahoot to teach a specific grammatical issue in the observed class. The topic was introduced via GC by sharing a reading piece and asking students for feedback. PPT was used in the classroom for discussions about grammar, as well as teachers' explanations of the structure and function. As a multiple-choice quiz, Kahoot was used to assess students' understanding of the grammar topic.

Furthermore, teachers were observed to be performed the characteristics of sequencing, differentiation for technical competence, and back up instruction in planning characteristic. Teachers promoted sample action of developing technical skill step by step through the content activity and building technology and content skill in the learning activity. Developing both technical and content skills during a lesson meant incorporating technical skills into the learning activity rather than teaching the technical skill separately. In the sequencing learning activity, both technical skill and content material were taught in the same activity. Teachers required to be a role model in using the technology for learning (Seufert et al., 2021). Teachers improved students' technical skills by allowing them to practice using technology during class.

Another differentiated technical competence is using technology in diverse modalities. It is noted that teachers need to exposed various technological skill and knowledge since they will teach the Gen-Z who have already familiar with the various digital tool (Santos & Castro, 2021). To fulfil this requirement, teachers have provided various digital tools to support student’s different learning style. During the lecture, teachers also gave several means of technology integration. Audio from a podcast, video from YouTube, a photo on Instagram, a reading passage shared through GC, and an ED platform that encompassed many forms of learning were among them. It gave students the ability to fulfil their individuality by providing those numerous modalities in technology-engaged learning. Additionally, teachers also gave alternate technology to deal with unforeseen events as included in back up instruction characteristic. It was mentioned that teachers are expected to develop the content of instruction or change the instruction focus to meet the pedagogical goal of technology transformation (Guggemos & Seufert, 2021). Teachers responded by providing technical tools to address the same issue. Teachers modified the PPT presentation exercise by incorporating a forum discussion through the WA group. Teachers in this scenario ditched the PPT and virtual meeting technologies in favour of using WA as a substitute.

Another characteristic of TPK in practice performed by teachers is the sample action of technology practice that included in the preparation. Teachers

performed the sample action of using technology in the classroom. This means that the technical ability of using technology should be practiced in the classroom as part of a class activity rather than as a separate personal activity. Practicing the technical skill in an instructional situation supplied teachers with information on technological affordance and constraints in order overcome every problem that might not go according to the plan (Seufert et al., 2021). Teachers became more conscious in this situation of the importance of selecting technology and activities that are appropriate for both class activities and students' independent pursuits. During the learning exercise, teachers put their technical skills to the test with a variety of tools. This involved practicing the usage of the ED tool as well as the speaking tool.

The last TPK in practice is implementation characteristic which consisted of modelling technological tool and classroom management sample action. There were four different actions in the modelling technical instrument that found in the observed lesson. Modelling the use of technology in practice, modelling the use of technological tools across disciplines, employing teacher-created exemplars, and having students imitate the technological tool utilized are all examples of this. It is important to integrate technology that allowed students to practice and explore their potential skill and benefit for problem solution of learning (Durak, 2019). Furthermore, teachers are required to have awareness and sufficient skill in order to give example of using technology in the classroom practice. While classroom management featured three sample actions, including group technique exercise, appropriate technology display, and technique to engage students in technology. Here, teachers provided technology tools that appropriated with the activities. This is in line with the design of digital lesson proposed by Sailer et al., (2021) that using various digital technologies such as LMS, digital learning scenario, educational software are important skill that can develop personal skill and instructional design in the classroom.

CONCLUSION

The teacher promotes 24 and 22 of the 33 components of TPACK in practice. These components represent teacher TPACK knowledge used in teaching practice, including practical TPCK, practical TPK, and practical TCK. In addition, teachers find ways to integrate various technology tools in addition to the main platform used by students. These include Google Classroom, Zoom Meeting, WhatsApp, Instagram, Kahoot and a student self-contained online learning center platform called the "English Discovery" platform.

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