CHAPTER IV

RESEARCH FINDINGS AND DISCUSSIONS

This chapter presents all the findings of the data collected and its analysis. Data of this research is presented in the findings while analysis of the research data is elaborated in discussions.

1.1. Findings

In this part, the researcher displayed three different types of sources as the research data. Those data was categorized into certain themes and then coded to support finding and discussion of the research.

1.1.1. Interview

In this research the interview was a semi-structured in-depth interview with open-ended questions. The interview involved two EFL pre-service teachers (1 male, 1 female) from total 75 EFL pre-service teachers (27 males, 48 females) of Microteaching class. These participants were chosen using purposeful sampling technique. The participants consist of 1 high performance EFL pre-service teacher and 1 average performance EFL pre-service teacher with good level of cooperativeness with respect to their interview and classroom observation on their TPACK framework implementation in their classroom. It expected to capture both performances of the whole EFL pre-service teachers upon their views and understanding about TPACK framework implementation during Microteaching performance where they take part. Finally, each participant was interviewed and

recorded in different times and places. After the interviews were conducted, the researcher listened to the audio recording or video in order to transcribe the results of interview into verbatim to be analyzed.

In the interview, the researcher investigates participants' point of view and understanding on the implementation of TPACK framework during Microteaching performance. The results of interview indicated that the implementation of technology that is in accordance with the material and background of students taught is very important. This is based on the conditions where nowadays technology becomes the provision that teachers must possess. The types of technology used by participants in Microteaching classes are mostly PPT, LCD, and video which are visual media. The choice of technology is considered easy in term of designing and implementing it into classroom activities. The technology is believed to be able to assist participants in delivering material effectively and so that learning objectives can be achieved well. Besides, in terms of students, they can easily understand the lesson because it provided with an interesting media. In implementing technology in TPACK context the participants have different strategy that coincides with pedagogy and content. It is because the needs of participants, as well as students and the material taught. The excerpt from transcript of the interview can be seen in table 4.1, while the complete transcription is attached in appendix 1.

Table 4.1 Sample Excerpt of Interview

Transcription 1
Respondent   : EFL Pre-service Teacher A

Time   : 14.06-14.50
Date   : Monday, 10th September 2018
Place   : Central Library of Islamic University of Indonesia

I : Interviewer, **R** : Respondent

Subject	Line	Transcription
I		Is it important to integrate technology, pedagogy, and content together into your teaching? Why? What did you think of it?
R	1	In my ipinion, this is very important. In this advanced era teachers must implement technology in learning and technology must be implemented simultaneously and synchronously among technology, pedagogy and content, so that learning eee the goals can be achieved well.
I		Other than that?
R	2	Eee…I think enough
I		What types of technology that you used to teach in your teaching practice?
R	3	The technology that I used yesterday such as PPT, if I used PPT surely it followed by LCD and projector, speaker. Is video included?

1.1.2. Document Analysis

In this research the documents that are analyzed are three documents, document 1 (participants' lesson plan), document 2 (the teaching materials), and document 3 (participant's self-reflection in teaching practice). The lesson plan or classroom learning guide contains participants' detailed description of the lesson that they teach. The teaching materials as the components of teaching to help the participants to deliver the lesson to students were analyzed in this research. In addition, the participants' self-reflections contain their evaluation on integrating TPACK framework in Microteaching class. The whole documents in this research were gained directly from the participants and the lecturers.

The documents analysis indicates that the use of technology in the context of TPACK framework in Microteaching class is prepared by the participants both in terms of material and technology that supports the teaching and learning process. This is expected to help students understand the material being taught and be able to produce works in improving their language skills through listening, speaking, reading, and writing skills. Table 4.2 shows the sample of lesson plan, while table 4.3 shows the sample of teaching material. More complete documents which used in this research can be seen in appendix 2.
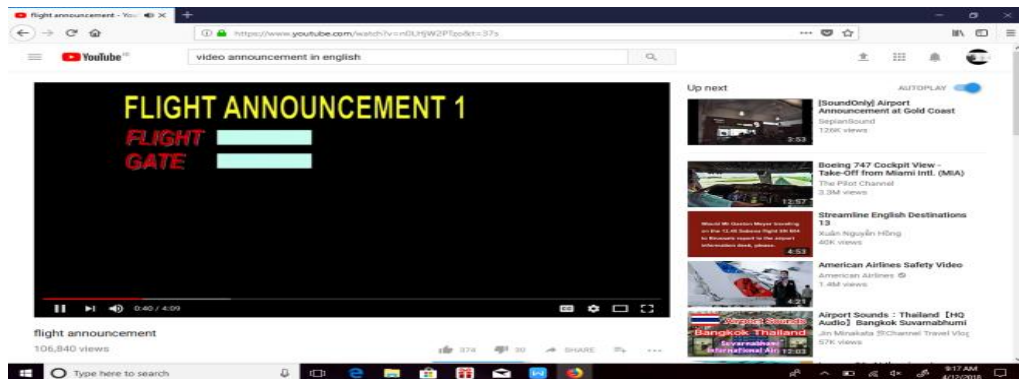
Table 4.2 Sample Excerpt of Document Analysis 1

<div align="center">Parts of Lesson Plan</div>

<u>**Teacher Activity**</u>

1. **Pre-stage**

Step 1:
- The teacher applies whispered game
- Teacher introduces the topic of the day

<u>**Courseware Material/Teacher's Material**</u>

The teacher shows the definition and the structures of announcement through PPT

2. **While-stage**

Step 1:
- The teacher shows the examples of announcement
- The teacher divides the students into groups
- The teacher gives papers to each groups to doing their assignment

Step 2:
- The teacher shows the example of announcement
- The teacher asks the students to do their assignment (fill the gap) based on the video that have showed before
- The teacher asks the students to make a short announcement

Courseware Material/Teacher's Material

3. **Post-stage**

Step 1
- The teacher gives an instruction to the students to come in front of class to introduce themselves
- The teacher gives an instruction to the students' to summarize all the activity.

MATERIALS
1. Textbook
2. Whiteboard

Table 4.3 Sample Excerpt of Document Analysis 2

Notes
The students were asked to :
- Watch the video and fill the gap
- Please make short announcement with your group

1.1.3. **Teaching Practice Observation**

In this research the observation of the participants were done for four times which consist of cycle 2 and cycle 3 of their microteaching from the total 3

cycles of teaching practice for each participant during a semester. This observation is done through observing the video of teaching practice in Microteaching class. Then the researcher transcribes the video to be analyzed further. The observation is aimed to capture the direct activities related to the implementation of TPACK framework during Microteaching performance. From the observations that have been conducted, the researcher gained much information as the confirmatory data source used in this research. The sample excerpt of teaching practice observation is displayed in table 4.4, while the complete data is attached in appendix 3.

Table 4.4 Sample Excerpt of Teaching Practice Observation

Meeting   : 2
Date   : 5th June 2018
Topic   : Descriptive Text
Class Mode : Face-To-Face
Time   : 27.43 Minutes

Time Description	Class Activities	Observation Notes
10.40	- The class was started with a describing game	The use of technology especially PPT in this session
04.45	- The EFL pre-service teacher asked students' prior knowledge about descriptive text	helped the EFL pre-service language teacher to deliver the materials. However, there was
05.50	- The EFL pre-service teacher showed the explanation of descriptive text through the PPT	a comment from student that the color was so bright then she suggested to change the color.
08.06	- The EFL pre-service language teacher asked one student to read components of descriptive text on the PPT	Further, the class situation was very crowded. The students were sometimes buzy with
09.18	- The EFL pre-service language teacher showed the example of descriptive text on the PPT then continued to ask students to read it	theirselves and made noisy when the EFL pre-service teacher is explaining. However, they were

12.37	- The EFL pre-service language teacher asked students to make a group of 3 or 4	enthusiastic in participating the activity especially in group
13.27	- The pre-service language teacher divided a worksheet to the students	work. Also, some students seemed helped each other in
14.36	- She continued to give instructions to do the assignment	doing the activity.
15.15	- While the activity, the EFL pre-service language teacher walked around to check students' works	
18.43	- The EFL pre-service language teacher asked students to read their works	
23.55	- The EFL pre-service language teacher asked students to make a descriptive text based on the picture displayed on the PPT (group work)	
26.30	- The student volunteered herself to read her work	

1.1.4. Thematizing

In this phase, the researcher classified research data into several categories. The categorizations revealed and confirmed the themes which were broken down into more specific sub-themes. The themes itself are in reference to the theory of both TPACK framework and Microteaching in teacher education as explained in the previous chapter. The theme is elaborated in table 4.5.

Table 4.5 Thematizing Matrix

No.	Constructs	Code	Theme	Sub-theme
1	Technological Pedagogical Content Knowledge (TPACK)	TPACK.TK	Technology Knowledge	Technology integration
				Types of technology
				Technology maximization
		TPACK.PK	Pedagogy Knowledge	Teaching methods

		TPACK.CK	Content Knowledge	English Language
		TPACK.BF	The Perceived Benefits of TPACK Implementation	The benefits of TPACK Implementation
2	Microteaching in Teacher Education (MTE)	MTE.BR	*The Briefing* (of Microteaching with TPACK Implementation)	Preparing lesson Analyzing difficulties Problem solving
		MTE.TC	*'The Teach'* (of Microteaching with TPACK Implementation)	Teaching strategies Facilitating learning
		MTE.CR	*The Critique* (of Microteaching with TPACK Implementation)	Teaching evaluation Kinds of evaluation
		MTE.RT	*'The Reteach'* (of Microteaching with TPACK Implementation)	Preparing second teaching Evaluating ideas

1.1.5. Coding

Coding is the process of inputting evidence into categorization based on theme and giving certain code on the evidence. In this research, the researcher created coding system from evidence from all data sources. Table 4.6 displays the coding system for all data from interview, document analysis, and observation.

Table 4.6 Coding Systems

Data Source	Coding Sample	Meaning
Interview	I/1/TPACK.TK/1	'I' (for Interview) means data is gathered from Interview. '1' for

Document Analysis	DLP/1/M.1-P.1/TPACK.TK	EFL Pre-service teacher 1. 'TPACK.TK' is the theme, which is abbreviation from Technology knowledge as the component of TPACK. '1' means it is from interview transcript line 1. 'DLP' for (Document Lesson Plan) means the data is gathered from Document Lesson Plan. '1' for Document number 1. 'M.1-P.1' for Meeting 1 and EFL Pre-service teacher 1. 'TPACK.TH' is the theme, which is abbreviation from Technology knowledge as the component of TPACK
Observation	O/TPACK.TK/1/P.1	'O' (for Observation) means the data is gathered from observation notes 'TPACK.TH' is the theme, which is abbreviation from Technology knowledge as the component of TPACK. '1' means it is from observation transcript on meeting 1 and 'P.1' means from EFL Pre-service teacher 1.

1.2.   Discussion

In this research, the researcher presents the interpretations and analysis on the research data. These interpretation and analysis are resulted in pre-figured theme sequence.

1.2.1. The EFL Pre-service Teachers' Understanding of Technological Pedagogical Content Knowledge (TPACK)

Technological Pedagogical Content Knowledge (TPACK) becomes a framework which implemented to evaluate teacher professional development in integrating technology together with the skill of pedagogy and content into learning. Further, the researcher provided the data which confirmed the three main components of knowledge: Technology, Pedagogy, and Content based on the results of the recent study.

A. Technology Knowledge

The implementation of technology in teaching is very important as shown in the results of interview (I/1/TPACK.TK/1), (I/2/TPACK.TK/1), that in this era, the technology must be implemented in learning because it is needed. In addition, the technology used must be in accordance with the pedagogy and content taught so that the learning objectives can be achieved well.

> "…**this is very important.** In this advanced era teachers must implement technology in learning and **technology must be implemented simultaneously and synchronously among technology, pedagogy and content, so that learning…the goals can be achieved well".** (I/1/TPACK.TK/1)

> "**If I think it is important,** eee because when we teach students… combining technology, pedagogy and content into one that eee if I think it can make students interested…". (I/2/TPACK.TK/1)

The types of technology used includes PPT, LCD, projector, speaker, picture, microphone, video, and computer as shown in (I/1/TPACK.TK/3), (I/1/TPACK.TK/4), (I/2/TPACK.TK/3), and (I/2/TPACK.TK/5). These types of

technology are categorized as advanced or new technology as stated by Mishra and Koehler (2006). In addition, in both cycles the participants often used the same media and for the same usage as shown in (I/1/TPACK.TK/31).

> "The technology that I used yesterday such as **PPT, if I used PPT surely it followed by LCD and projector**, speaker". (I/1/TPACK.TK/3)

> "….**picture.** Because of my voice is loud enough therefore I did not need a microphone." (I/1/TPACK.TK/4)

> "…the technologies that I used are **PPT and video**". (I/2/TPACK.TK/3)

> "…I used **microphone, computer**". (I/2/TPACK.TK/5)

> "…because **the media that I used were the same,** I used PPT, audio and **the media that I used have the same usage** (I/1/TPACK.TK/31)

From the results of interview in (I/2/TPACK.TK/9) and (I/2/TPACK.TK/12) participant B has not fully believed that the technology she used could fully maximize her students' learning. It can be seen when she implemented the PPT, there were some students who did not understand the explanations. However, according to her the technology was quite helpful in teaching because students could refer to the media used such as PPT or video in understanding the lesson.

> "…**I did not really believe**". (I/2/TPACK.TK/9)

> "Because when I teach by displaying PPT it **sometimes they were still unclear they still asked** *"how about this?"* and then so if I think I still did not believe". (I/2/TPACK.TK/10)

> "…**it was not maximal yet**". (I/2/TPACK.TK/12)

> "**Yes InsyaAllah it helpful**". (I/2/TPACK.TK/21)

"…**it is quite helpful**". (I/2/TPACK.TK/23)

"…they did not just fixate on what I talked about, but they also **could see from the PPT and video that I displayed.** So, I think it through PPT and video". (I/2/TPACK.TK/22)

Furthermore, from the results of interviews as shown in (I/1/TPACK.TK/104) and (I/2/TPACK.TK/102) both participants have agreed that the way in choosing the technology in terms of TPACK implementation should adjust to the needs of teachers and students. For example, this adjustment must be based on whether the class is internet-based or not, so students could access it properly. In addition, the chosen media must also be accordance with the level of students' abilities so it not burden learners.

"…**the important thing is this if we want to use any media just adjust it with the needs, adjust it with students, I mean is that media can be accessed or not by the students.** For example I want to use this quiz base internet and then but if I use it in the class with no internet connection it cannot worked…the main this is if we want to use any media adjust it with the needs and is students access it or not". (I/1/TPACK.TK/104)

"**The way I chose technology…is adjusting to our** needs and then…for example this is student's needs **we have to choose the technology that suits them**. So, **not too burden**". (I/2/TPACK.TK/102)

The results of the interview are also supported by data from the document in (DLP/2/M.2-P1/TPACK.TK) and (DTM/3/M.1-P2/TPACK.TK) and from the observation notes below:

Table 4.7 Excerpt of Document Analysis 1 (DLP/2/M.2-P1/TPACK.TK)

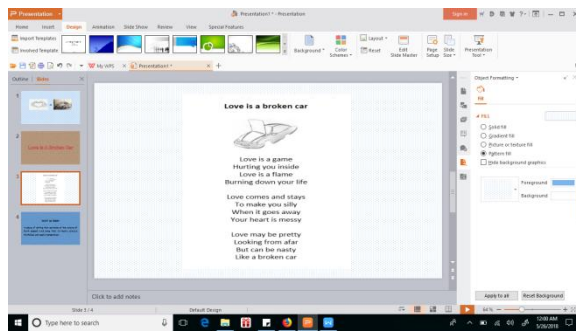|	
PRESENTATION/INTRODUCTION/WARM UP 3. Teacher introduces material of the day – learning poem. (PPT) For example: The teacher telling the definition of the poem. PRACTICE Step 1: Teacher shows the poem of "love is broken car" (after the student guess the title) and then the teacher asks the some students to read that poem and ask all the students to guess the meaning of vocabularies which contain in the poem. Material/ Media (s) PRODUCTION **Step 1**: The teacher showing a picture (little boy) then the students must makes poem related to the picture that has been given by the teacher.	DLP/2/M.2-P1/TPACK.TK

The document analysis 1 revealed that the participant applied Technology Knowledge (TK) in the presentation session. It could be seen from the use of Power Point Presentation to introduce the material being taught. Hence, he chose to use a new technology or advanced technology (PPT) (Mishra & Koehler, 2006). In the practice and production session, the participant applied

Technological Content Knowledge (TCK) as he combined the language content to teach poem. He displayed the poem through PPT in order to show the students about the example of the poem, ask them to guess its meaning, and create a poem.

Table 4.8 Excerpt of Document Analysis 2 (DTM/3/M.1-P2/TPACK.TK)

DTM/3/M.1-P2/TPACK.TK	The students were asked to: Watch the video about asking and giving opinion and mention how many asking opinion on the video!

The document analysis 2 shows the participant implemented Technology Knowledge (TK) in giving assignment. The students were asked to watch the video about the topic being taught and then asked them to mention the expressions they found in the video. Therefore, this knowledge refers to the knowledge about the technology used and its integration into teaching practice (Mishra & Koehler, 2006; Koehler, Mishra, Kereluik, Shin, and Graham, 2014).

Table 4.9 Excerpt of Teaching Practice Observation (O/TPACK.TK/1/P.1)

Meeting : 1
Date :
Topic : Announcement
Class Mode : Face-To-Face
Time : 16.39 Minutes

Time Description	Class Activities	Observation Notes
06.44'	- He continued with the explanation of 'announcement' *by displaying it on the PPT*	The EFL pre-service teacher used PPT to display any key sentences that might help
09.00'	- The EFL pre-service teacher showed the example of 'announcement' on the PPT then	him to remember what to be delivered to the students. The students looked very engaged

10.59'	asked students to analyze it - He continued to <u>play the audio (listening task)</u> while students did the assignment (At first, he would like to show the video but because it could not work he changed it into audio)	with the lesson and explanations. They were actively responded to the questions and group discussion. The EFL pre-service teacher also often re-explained lesson or <u>re-played the audio</u> to make sure the students have understood the lesson.
12.14'	The EFL pre-service teacher <u>replay the audio</u>	

From the above findings it can be concluded that nowadays EFL pre-service teachers should have knowledge to implement technology in classroom synchronously with the pedagogy and content. In line with the theory stated by Barzaq (2007) on one requirement to be prospective teacher, that EFL pre-service teachers are required to have enough pedagogy skills such as in applying technologies. In addition, the implementation of technology in terms of TPACK framework provide EFL pre-service teacher with many advantages such as in developing methods to facilitate them in delivering information to students (Ekrem & Recep, 2014).

B.   Pedagogy Knowledge

In terms of pedagogy knowledge, the way on how planning and delivering materials, managing classroom environment, and evaluating students' work are needed (Mishra & Koehler, 2006; Koehler & Mishra, 2009). It is proven by the results of interview in (I/1/TPACK.PK/26), (I/1/TPACK.PK/27), (I/1/TPACK.PK/28), (I/2/TPACK.PK/30), (I/1/TPACK.PK/70) and (1/2/TPACK.PK/42) that the participants organized their lesson plans by adjusting

to the technology and the content they want to teach. Also, they checked the students' works in order to evaluate it.

> "Ohh…if yesterday my strategy was…due to my first topic is announcement so, **to choose the appropriate media in announcement I have to display the real example of announcement, after that because it can help students in understanding what is announcement**?...students can know the types of announcement such as announcement in the airport, announcement in the hospital, announcement in the school etc." (I/1/TPACK.PK/26)

> "**Because it can help the process of teaching…**in the process of teaching and learning activities". (I/1/TPACK.PK/27)

> "…**the main important is the goal can be achieved**". (I/1/TPACK.PK/28)

> "…**I fitted the lesson plan with what I teach.** In the cycle 2 I…in the cycle 2 and cycle 3 I fitted the technology, pedagogy and content I adjusted them". (I/2/TPACK.PK/30)

> "…the evidence is students, **when I gave them assignment they can work on it while their work were correct** I mean the goals are the students are able to eee make a poem and in the end of learning the students could make a poem and I mean eee they made that poem based on the structures that I have explained and that is". (I/1/TPACK.PK/70)

> "**Yes, I checked** (Students' works)". (1/2/TPACK.PK/42)

The data from interview is supported by the data in the document analysis as shown in (DLP/1/M.1-P.1/TPACK.PK) and (DTM/2/M.2-P.1/TPACK.PK). Also, the data from the teaching practice observation in (O/TPACK.PK/1/P.2).

Table 4.10 Excerpt of Document Analysis 1 (DLP/1/M.1-P.1/TPACK.PK)

Courseware Material/ Teachher's Material

The teacher <u>shows the definition and the structures of announcement through PPT</u>
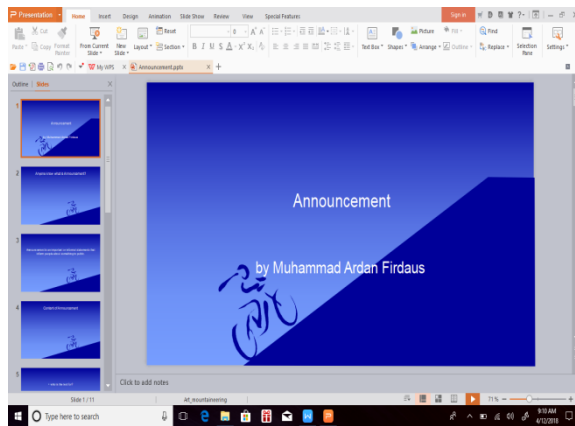
DLP/1/M.1-P.1/TPACK.PK

2. While-stage
Step 2:
- The teacher <u>shows the example of announcement</u>

The document analysis 1 revealed that the participant implemented the Technology Knowledge (TK). He delivered the material through the help of PPT to show the students about the definition of announcement. In addition, the participant also delivered the material by adjusting it to the technology used. It revealed that the participant applied the Pedagogical Knowledge (PK) in his teaching. These analyses are in line with the theory by Mishra and Koehler (2006) about technology used and its integration process into teaching.

Table 4.11 Excerpt of Document Analysis 2 (DTM/2/M.2-P.1/TPACK.PK)

DTM/2/M.2-P.1/TPACK.PK	<u>Make a poem related to the picture of "LITTLE BOY"!</u>

The document analysis 2 indicated that the participant tried to include the knowledge of Content (CK) into the assignment. As defined by Mishra and Koehler (2006), this knowledge involves the knowledge of ideas or concepts in teaching specific subject that related to language content. In this case, the participant asked the students to create a poem based on the given picture. The assignment must follow the structures of poem as explained by the EFL pre-service teacher in the presentation session. As the result, the students could create a poem by themselves and successfully included the structures of poem as shown in the result on the interview.

Table 4.12 Excerpt of Teaching Practice Observation (O/TPACK.PK/1/P.2)

Meeting   : 1
Date   : 25th April 2018
Topic   : Asking and Giving Opinion
Class Mode : Face-To-Face
Time   : 40.22 Minutes

Time Description	Class Activities	Observation Notes
07.35	- The EFL pre-service teacher have <u>showed a video and asked students to write any expression of 'asking and giving opinion' in the video</u>	Some students seemed very engaged with some activities especially <u>they were paid attention when watching the video by writing any information they got from the video</u> and actively participate in the dialogue session

Further, from the results of document analysis and teaching practice observation it indicated that the participants presented the learning activities with

the help of technological tools that could make teaching and learning more effective. As according to Koehler (2006) this knowledge is required for teachers in order to adapt with an advanced technology and combine it with the content or task.

C. Content Knowledge

In teaching practice, the participants have presented material that could improve students' linguistic skills such as speaking and writing through several activities. It aimed to support students to achieve learning goals at the end of the class. It involves the knowledge of ideas, theories, concepts, facts as well as knowledge of the approaches on how to relate those ideas to existing evidence (Koehler & Mishra, 2009). The results from the interview in (I/1/TPACK.CK/33), (I/1/TPACK.CK/35), (I/1/TPACK.CK/36), and (I/2/TPACK.CK/33) shows how the participants included content of ELT into their teaching.

> "…so students **can know how is the announcement delivered by native speakers so students can understand it**". (I/1/TPACK.CK/33)

> "**Listening and speaking,** because from the previous activities I gave them example and then I asked them to make an announcement later they worked in a group then one student from each group came forward to read the announcement". (I/1/TPACK.CK/35)

> "**The skill is speaking**." (I/1/TPACK.CK/36)

> "**If in cycle 2 I more focused on speaking** so I taught…I gave a video and then I asked them to write what such as about that asking and giving opinion then later they were in pairs like asking and giving opinion to their friends and after that they came forward to practice. Is that correct? I forgot the cycle 2. Then in cycle 3 eee I gave them worksheets in group later they described for example Borobudur and then…was about Panda and then beach **if in cycle 3 I was focused on writing I think** ". (I/2/TPACK.CK/33)

Furthermore, according to participants A and B the content of ELT in their teaching could facilitate students' language learning in class. It can be seen from the results of interview (I/1/TPACK.CK/40), (I/1/TPACK.CK/42), (I/2/TPACK.CK/37), (I/2/TPACK.CK/38), (I/2/TPACK.CK/39), (I/2/TPACK.CK/40), and (I/2/TPACK.CK/41) that students could finish the task well. For example in participant A, when he gave the task to create a poem, students were able to do it well. Students were also able to implement the structures of poem as explained by the EFL pre-service teacher in the presentation session. Meanwhile, in participant B, students were able to improve their speaking and writing skills as proven by their speaking activities in the production session.

> "**Yes, they achieved it**. In addition, I gave students a picture of a kid then **they were required to describe that kid through a poem**". (I/1/TPACK.CK/40)

> "…it facilitated because I gave examples about a poem. Also, I taught and explained what are the structures of poem and **I think it could be facilitate this…students' language learning in language because…they already known how are the structures and then I also gave examples of poem that I have explained**." (I/1/TPACK.CK/42)

> "**It (the activities in the practice session related to asking and giving opinion and descriptive text) helped in terms of speaking and writing**". (I/2/TPACK.CK/37)

> "…**in the cycle 2 it (materials related to asking and giving opinion) helped students to…improve their speaking** and then **in the cycle 3 was writing yeah in improving students' writing**". (I/2/TPACK.CK/38)

> "they got it, **achieved**". (I/2/TPACK.CK/39)

> "…**because their speaking was good so I think it achieved. Also, I think there was no obstacles anymore**". (I/2/TPACK.CK/40)

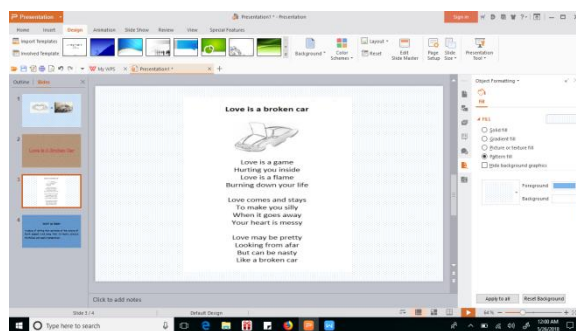> "Yes, **they were able in writing too**". (I/2/TPACK.CK/41)

Besides the results of interview, it also proven by the results of document analysis as shown in (DLP/2/M.2-P.1/TPACK.CK) and (DTM/1/M.1-P.1/TPACK.CK) then strengthened by the results of teaching practice observation

Table 4.13 Excerpt of Document Analysis 1 (DLP/2/M.2-P.1/TPACK.CK)

PRACTICE	
Step 2: After the students know about the vocabularies, so the teacher <u>asks to the students to interpret the meaning of the poem.</u> Material/ Media (s) 	DLP/2/M.2-P.1/TPACK.CK
PRODUCTION	
Step 1: The teacher showing a picture (little boy) then <u>the students must makes poem related to the picture that has been given by the teacher.</u>	

In the document analysis 1 the participant implemented Content Knowledge (CK) and Pedagogical Knowledge (PK) (Mishra & Koehler, 2006). The implementation of CK could be seen in the practice session where the participant asked students to interpret the meaning of the poem they have understood. It was related to the students' understanding of the vocabularies in the poem. In addition, in the production session, the students were required to create a

poem based on the students' understanding of the material being taught. While the implementation of PK could be seen in the participant's stages of delivering material from one activity to another activity as shown in the document. Therefore, the activities provided above have covered the component of delivering materials and evaluating students' work based on Mishra and Koehler's elaboration of Pedagogical Knowledge in TPACK.

Table 4.14 Excerpt of Document Analysis 2 (DTM/1/M.1-P.1/TPACK.CK)

DTM/1/M.1-P.1/TPACK.CK	The students were asked to : - Please <u>make short announcement with your group</u>

The document analysis 2 shows the implementation of Pedagogical Knowledge (PK) based on Mishra and Koehler (2006) theories of TPACK. He asked students to create a short announcement then asked them to read it in front of other students. It aimed at evaluating students' ability in creating a poem in order to check whether they have understood the material or not.

Table 4.15 Excerpt of Teaching Practice Observation (O/TPACK.CK/2/P.1)

Meeting : 2 Date : 26th May 2018 Topic : Poem Class Mode : Face-To-Face Time : 20.57 Minutes		
Time Description	Class Activities	Observation Notes
11.46' 14.15'	- The EFL pre-service teacher <u>asked several students to mention the meaning of the poem and wrote the answers on the white board</u>	<u>The EFL pre-service teacher were mostly displayed the PPT for all activities.</u> Further, the students seemed very engaged in classroom

14.35'	- The EFL pre-service teacher showed the picture of 'a kid' on the PPT then <u>asked students to read it</u> - The EFL pre-service teacher asked students to <u>make a poem based on the picture of 'a kid' which displayed on the PPT</u>	activities. They actively asked the unclear information that delivered by the pre-service foreign language teacher.

Finally, it can be concluded that both participants not only included the content of ELT into practice activities, but also into the production activities in order to check whether the students have already understood the lesson or not. In addition, it indicates the focus on students' linguistic content learning through varied activities designed to support the improvement of their language skills.

1.2.2. The EFL Pre-service Teachers' TPACK Implementation during Microteaching Performance

Microteaching in teacher education is designed as procedure for pre-service teacher to practice specific teaching skills within a few spans (Choudhary, Choudhary, & Malik, 2013). It aimed to provide them with good ability to be able to perform good teaching performance in real classroom. Below the researcher presents the result of the data from this theme regarding to the stages of microteaching by Wallace (1991). Wallace divided the stages into four main stages: *The briefing*, *'the teach'*, *the critique*, and *'the reteach'*.

A. *'The Teach'* (of Microteaching with TPACK Implementation)

This stage includes the teaching process in the form of micro-lessons of a trainee to their fellow or real students (Wallace, 1991). The stage may include the

process on how the participants practice their lesson plan they have organized before. In addition, in this case the participants implemented the TPACK framework during their Microteaching performance. The results of the interview in (I/1/MTE.TC/58), (I/2/MTE.TC/59), (I/2/MTE.TC/60), (I/2/MTE.TC/61), (I/1/MTE.TC/59), (I/1/MTE.TC/60), (I/1/MTE.TC/62), (I/2/MTE.TC/62) and (I/2/MTE.TC/33) shows that the language teaching model used by both participants are Cooperative Language Learning (CLL) or collaborative learning which includes pairs and groups activities. The use of this strategy has helped students to produce language through the implementation of technology tools such as PPT, video, images and audio. They worked in pairs and groups in carrying out the activities so that the information that they have understood can be practiced directly with their friends. For example they were participated in dialogue session, describing picture and creating an announcement.

> "If the method I prefer to **for example use CLL method** so, I did not just stand in the front, explain and scream to explain, but I walked around and always checking students' understanding and walk around while asking *"have you understood?"* after that eee when they do the task I asked if they have understood my explanation or not…" (I/1/MTE.TC/58)

> "Yes **collaborative**". (I/2/MTE.TC/59)

> "**In cycle 2 was in pairs and then in the cycle…was in group**". (I/2/MTE.TC/60)

> "**The activities in the cycle 2 yeah is pairs**…they did it and later came forward". (I/2/MTE.TC/61)

> "The activities if in cycle 2…**the first is announcement I explained what is announcement,** the main important is related to announcement. What is announcement and then where usually announcement is made and then announcement is consist of three, there are 3 points the first is to whom it is made for, what is the event

and what else…I forgot the last point. **After that, I explained about that then I gave example, gave example about the announcement then after giving the examples I asked them to be volunteer to read the announcement then I gave a task for them to make announcement**". (I/1/MTE.TC/59)

"For the cycle 3 the activity were same for example I explained what are the points, I gave example of the poem and there was guessing, after **that I gave pictures and they should describe the picture through poem**". (I/1/MTE.TC/60)

"for the task **I usually do not give for individual but group**". (I/1/MTE.TC/62)

"…in cycle 2 asking about…asking and giving opinion and then in the **cycle 3 they were in groups describing something**". (I/2/MTE.TC/62)

"…I gave a video and then they eee **I asked them to write what such as about that asking and giving opinion then later they were in pairs like asking and giving opinion to their friends and after that they came forward to practice.** Is that correct? I forgot the cycle 2. Then in cycle 3 eee **I gave them worksheets in group later they described for example Borobudur** and then what eee yesterday was about Panda and then beach if in cycle 3 I was focused on writing I think". (I/2/MTE.TC/33)

The data also supported by the data in document analysis in (DLP/1/M.1-P.1/MTE.TC) and (DTM/3/M.1-P.2/MTE.TC). Also, the data from teaching practice observation in (O/MTE.TC/1/P.1).

Table 4.16 Excerpt of Document Analysis 1 (DLP/1/M.1-P.1/MTE.TC)

| |
|---|
| **Teacher Activity** |
| **2. While-stage** |
| Step 1: |
| - The teacher <u>shows the examples of</u> <u>announcement</u> |
| - The teacher <u>divides the students into groups</u> |
| - The teacher <u>gives papers to each groups to</u> <u>doing their assignment</u> |
| Step 2: |

- The teacher <u>shows the example of announcement</u> - The teacher <u>asks the students to do their assignment (fill the gap) based on the video</u> that have showed before - The teacher <u>asks the students to make a short announcement</u> Courseware Material/ Teachher's Material	DLP/1/M.1-P.1/MTE.TC
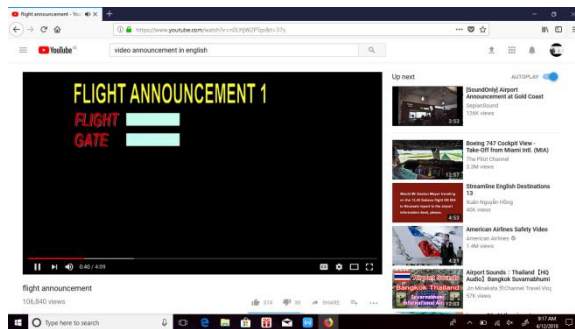
The document analysis 1 revealed that the participant understood the Pedagogical Knowledge (PK) as indicated in the process of delivering materials (Mishra & Koehler, 2006). In step 1 the participant showed the examples of announcement, divided students into group (applied CLL strategy), and divided papers to each group to do the assignment. In step 2 the participant showed the example of announcement, asked students to do the assignment, and asked them to create an announcement.

Table 4.17 Excerpt of Document Analysis 2 (DTM/3/M.1-P.2/MTE.TC)

DTM/3/M.1-P.2/MTE.TC	The students were asked to : - <u>Watch the video about asking and giving opinion and mention how many asking opinion on the video!</u> - <u>Make a short dialogue based on the word already provided!</u> - <u>Practice the dialogue that has been</u>

	<u>created with your friends in front of the class!</u>	

The document analysis 2 consists of the students' tasks about asking and giving material. This revealed that the participant implemented Technology Knowledge (TK) and Content Knowledge (CK) (Mishra & Koehler, 2006). The use of TK could be seen in the process of asking student to watch the video about asking and giving opinion. The participant used the video as the technology in teaching. In addition, the use of CK could be seen in the process of giving assignment where the participant implemented some ideas or concept. For example the students required to find any expression of asking and giving opinion, create a short dialogue based on the given words, and practice it with their friends.

Furthermore, the data from the lesson plan and teaching materials show that the participants expected students to be able to understand the topic from the teacher's explanation through several activities provided. It also proven that students much required to produce their works by themselves in order to check whether the learning objectives have been achieved.

Table 4.18 Excerpt of Teaching Practice Observation (O/MTE.TC/1/P.1)

Meeting　　: 1
Date　　　 :
Topic　　　: Announcement
Class Mode : Face-To-Face
Time　　　 : 16.39 Minutes

Time Description	Class Activities	Observation Notes
06.44'	- He continued with the explanation	<u>They were actively</u>

09.00'	of 'announcement' <u>by displaying it on the PPT</u>	<u>responded to the questions and group discussion</u>.
10.59'	- The EFL pre-service teacher <u>showed the example of 'announcement' on the PPT then asked students to analyze it</u>	
14.10'	- He continued to <u>play the audio (listening task) while students did the assignment</u>	
	- In the production session, the pre-service language teacher <u>divided the colorful paper to the students then asked them to make the announcement based on a given situations (group works)</u>	

Other evidences as shown in teaching practice observational notes that students seemed very engaged with the activities. They were actively participated in those activities such as in responding to the questions and group discussion, reading a poem, guessing subject, and describing activity.

B. ***The Critique* (of Microteaching with TPACK Implementation)**

In this stage the trainee receives input on the teaching that has been performed previously. Also, in this stage the trainee's video can be played for further discussion (Wallace, 1991). From the results of the interview in (I/1/MTE.CR/79), (I/1/MTE.CR/86), (I/2/MTE.CR/75), (I/2/MTE.CR/72) and (I/2/MTE.CR/73) indicated that the critique session in Microteaching class is done after the teaching practice immediately through oral feedback. The critique comes from lecturer and other EFL pre-service teachers.

"**Comment**". (I/1/MTE.CR/79)

"…**after the immediate teaching they were free to comment anyone**". (I/1/MTE.CR/86)

"…**oral**". (I/2/MTE.CR/75)

"Yes **Ms. delivered the feedbacks after teaching (related to TPACK framework implementation in the teaching practice)**". (I/2/MTE.CR/72)

"…**after teaching I was given continuous feedbacks from my friends after I finished teaching, they were given me feedbacks too (the feedbacks consist of the evaluation after implementing TPACK framework and other components on how teaching should be)**". (I/2/MTE.CR/73)

Furthermore, in the interview session, both participants could not deliver their feedbacks clearly because they have little bit forgot those feedback either from lecturer or other EFL pre-service teachers. In TPACK implementation especially in technology integration, the PPT used by participant B was too bright. However, by considering this feedback the participant re-designed it to make the PPT better than in the previous cycle. Furthermore, the examples used related to the content of material is needed to be added. The participants also were required to prepare their pedagogy skill in implementing TPACK in teaching.

"If yesterday the feedback was from the lecture that if in announcement **because the examples of announcement are still less**". (I/1/MTE.CR/72)

"If from Ms. maybe this…**I was lacking in delivering material, I still not ready yet**". (I/2/MTE.CR/76)

"…**less preparation**. And then if **from my friends sometimes my explanation was not understood yet**. If in cycle 3 they were actually, if from the comments, **the PPT was good, the color in the cycle 3**…". (I/2/MTE.CR/77)

"…maybe if in TPACK maybe just it and yesterday **I think there was a critique that the writings on PPT were very bright**". (I/1/MTE.CR/74)

Furthermore, the data from the interview can be confirmed by the data from the document which shows the participants' self reflections on their teaching practice in Microteaching class as shown in figure 4.1
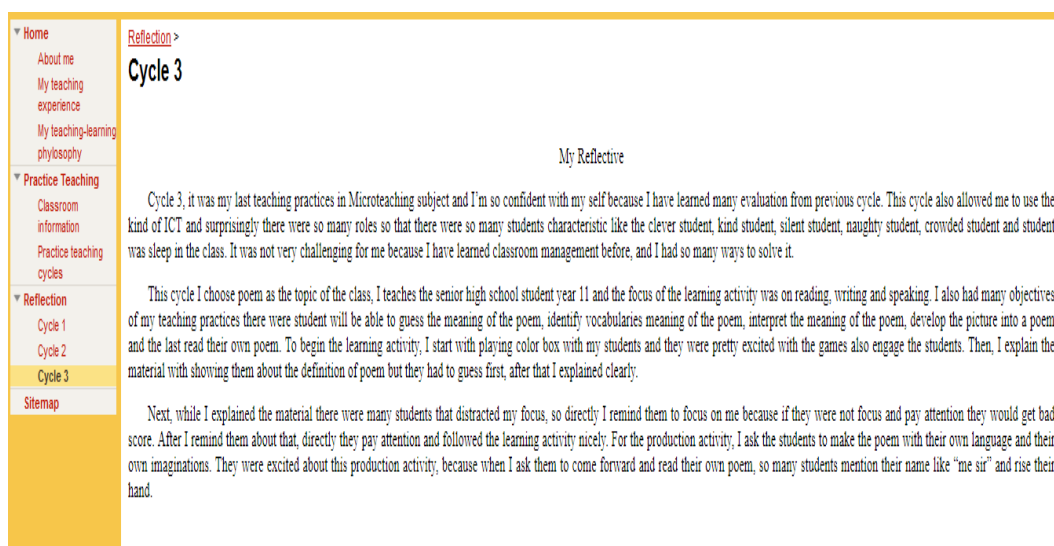

Figure 4.1 The Participant's Self-reflection of Teaching Practice

The figure above consists of the participant's self reflections of his teaching performance. It revealed that the participant applied Pedagogical Knowledge (PK) and Content Knowledge (CK) (Mishra & Koehler, 2006). In PK, he found several conditions of classroom and some characteristics of the students. However, he could face it by implementing his knowledge of classroom management in the classroom. Hence, in CK the participant taught the material by focusing the target language such as reading, writing, and speaking. The students were also required to be able to guess the meaning of the poem, identify the meaning of vocabularies, interpret it's meaning, and develop the picture into a poem.

Furthermore, the data above was proven by the data from the teaching observation.

Table 4.19 Excerpt of Teaching Practice Observation (O/MTE.CR/1/P.2)

Meeting : 1
Date : 25th April 2018
Topic : Asking and Giving Opinion
Class Mode : Face-To-Face
Time : 40 Minutes

Time Description	Class Activities	Observation Notes
18.47' 20.45' 24.25'	- The lecturer gave feedbacks to the EFL pre-service teacher about giving a more elaborated role play in the production session, involve more people in the activity, and it is better to relate the warming activity to the lesson - The lecturer practiced the warming activity by showing the pictures and continued to simulate it. - The lecturer suggested to display the expressions of asking and giving opinion on the PPT after the elicitation, select the expressions based on students' levels, do not read the expressions on the PPT, asked students to read after you, asked students to make a statement from a given words that showed on the PPT then do a role play	Also, there was a discussion between students and lecturer in feedback session about the practice and production activities.

The evidence is supported by the data both from document and teaching practice observation transcripts. In document analysis, the participants stated their self-reflections on the teaching practice clearly and in detail. In addition, the data

from teaching practice observation indicated that they obtained feedbacks related to the implementation of TPACK framework from both lecturer and classmates. As satetd by Ogeyik (2009) that the feedbacks given aimed at evaluating self-teaching performance and providing participants with good ability to be able to perform good teaching performance in real classroom.

C.   *'The Reteach'* (of Microteaching with TPACK Implementation)

In this stage the participant taught for the second time by considering the feedback that has been received in the previous teaching performance (Wallace, 1991). In *'the reteach'* stage both participants prepared their teaching in term of re-implementing TPACK framework maximally as could be seen through the interview results (I/1/MTE.RT/87), (I/2/MTE.CR/82), (I/2/MTE.RT/91), and (I/2/MTE.RT/99). It indicated that participant A improved his performance in cycle 3 by considering the feedbacks in his previous cycle. If in cycle 2 the examples (material about announcement which displayed on the PPT) he gave is still less than in cycle 3 he gave more examples and showed pictures to make students can easily guess the title of the material to be taught. It aimed to make students more understand the content of the material. Meanwhile, participant B has prepared more material that would be taught especially in terms of PPT and the assignments given to avoid mistakes when teaching. As stated by Mudra (2018) that teaching will be better if it followed by a maximal preparation.

> "…the lecture told the examples were still less. Then **here I have to be really gave example that for me can make students really understand.** Yeah the example such as the first example and then the second I made picture so that students can guess the aim of

guessing is to make me easy in checking that student have really understood or not…" (I/1/MTE.RT/87)

"…the preparation…**I was really looking for the material** I like descriptive text therefore, when **I was teaching in the class there was no obstacles I think in cycle 3 so I prepared well in terms of PPT and tasks**". (I/2/MTE.CR/82)

"…**in terms of technology I prepared an interesting PPT in terms of color and font**…" (I/2/MTE.RT/91)

"**It was better in terms of PPT display and then I gave a prepared task for students, more prepared**". (I/2/MTE.RT/99).

In terms of their teaching in the cycle 3 in implementing TPACK frameworks in cycle 3 according to them have reached the criteria. It can be seen on how learning objectives they have planned can be achieved (I/1/MTE.RT/101), (I/2/MTE.RT/97), and (I/2/MTE.RT/98).

"**Because that students I mean the goals were achieved, I mean the goals in my lesson plan were all achieved** ".(I/1/MTE.RT/101)

"…**I think it was reached a criterion**". (I/2/MTE.RT/97)

"**Because in the cycle 3 I think I was better than in cycle 2 (the TPCK implementations in teaching practice)**". (I/2/MTE.RT/98)

From the results of interviews as shown in (I/1/MTE.RT/104) and (I/2/MTE.RT/102) both participants have agreed that the effective implementation of TPACK framework should be adjusted to the needs of teachers and students. For example, this adjustment must be based on whether the class is internet-based or not so students can access it properly. In addition, the chosen media must also be accordance with the level of students' abilities so it not burden learners.

"…**the important thing is this if we want to use any media just adjust it with the needs, adjust it with students, I mean is that media can be accessed or not by the students.** For example I want to use this quiz base internet and then but if I use it in the class with no internet connection it cannot worked…the main this is if we want to use any media adjust it with the needs and is students access it or not". (I/1/MTE.RT/104)

"**The way I chose technology…is adjusting to our** needs and then…for example this is student's needs **we have to choose the technology that suits them**. So...**not too burden**". (I/2/MTE.RT/102)

The data from interview is proven by the data from documentation and teaching observation.

Table 4.20 Excerpt of Document Analysis 1 (DLP/2/M.2/MTE.RT)

PRESENTATION/INTRODUCTION/WARM UP	
1. Open the class by greetings. 2. Teacher applies guessing pictures. 3. Teacher introduces material of the day – learning poem. (PPT) For example: The teacher telling the definition of the poem. 4. <u>Teacher will give picture to students (love symbol and broken car picture) and then the teacher ask to the student to guess about the title of the poem that will be discussed in that day.</u>	DLP/2/M.2/MTE.RT

In the production session, the participant implemented Technology Knowledge (TK) as he used PPT to explain about poem. He explained the points of poem and showed the pictures of *love symbol* and *broken car* through PPT.

Thus, the knowledge refers to the Technology Knowledge as defined by Mishra and Koehler (2006) in TPACK.

Table 4.21 Excerpt of Document Analysis 2 (DTM/2/M.2-P.1/MTE.RT)

DTM/2/M.2-P.1/MTE.RT	The students were asked to : - Guess the meaning of the poem! - Make a poem related to the picture of "LITTLE BOY"! - Read the poem in front of the class!

The document analysis 2 shows the activities related to the use of Technology Knowledge (TK) (Mishra & Koehler, 2006). The participant asked the students to guess the meaning of the poem which displayed on the PPT. He also asked the students to create a poem based on the given picture. From the document analysis, it revealed that the participant has been able to use the technology and its integration in teaching practice through the use of PPT to deliver the material about poem and give assignment.

Table 4.22 Excerpt of Teaching Practice Observation (O/MTE.RT/2/P.1)

Meeting	: 1	
Date	: 25th April 2018	
Topic	: Asking and Giving Opinion	
Class Mode	: Face-To-Face	
Time	: 16.39 Minutes	

Time Description	Class Activities	Observation Notes
05.50'	- The EFL pre-service teacher showed	The use of technology

08.06'	the explanation of descriptive text through the PPT - The EFL pre-service teacher <u>asked one student to read components of descriptive text on the PPT</u>	especially PPT in this session is helped the EFL pre-service teacher to deliver the materials.
09.18'	- The EFL pre-service teacher <u>showed the example of descriptive text on the PPT</u> then continued to ask students to read it	However, there is a comment from student that its color is so bright then she suggested to change the color.
26.30'	- The EFL pre-service teacher <u>asked students to make a descriptive text based on the picture displayed on the PPT</u> (group work)	

D.   Emergent Finding

From the discussion and findings above, the researcher found additional emergent finding related to the implementation of TPACK framework during Microteaching performance. It was perceived by the EFL pre-service teacher participants. It is known as the perceived benefits of TPACK implementation.

1.   The Perceived Benefits of TPACK Implementation

The perceived benefits of TPACK as defined by the participants in this research are elaborated into some points. They are TPACK has helped in delivering materials, helped students to learn better, and TPACK could attract students attention.

a. TPACK has helped in delivering material

The benefits gained from implementing the technology have helped the participants to deliver material to students. Also, it helped the participants in

giving concrete examples of the material being taught. According to participant A as shown in (I/1/TPACK.BF/67), (I/2/TPACK.BF/67), (I/1/TPACK.BF/8), (I/1/TPACK.BF/9) and (I/1/TPACK.BF/15) that TPACK framework has helped them in delivering materials. For instance, participant A did not need to explain more to the students, because they could directly see the explanation and example on the PPT. The same thing was expressed by participant B. According to her the implementation of TPACK in learning especially in classroom activities has helped her in conveying the material. It could be seen how the use of effective technology as it become a very comprehensive framework to help teachers to integrate technology in teaching (Öz, 2015).

> "if used the media I mean if the teaching was just normally only used paper and oral I think I need to be extra in explaining because of the media **firstly it helped, it helped me in explaining and then the second, the student could easily understand because there are examples** I mean they for example in announcement it…I used what is the name that I show to the students then if I did not use it I need to be extra in explaining". (I/1/TPACK.BF/67)

> "Yes. If I did not use that I have to explain more maximal. **Because the technology helped me** for example…may I tell you?". (I/2/TPACK.BF/67)

> "For example, yesterday was about 'announcement' **I gave an example like a real example of announcement and it must required a technology**. Well, yesterday I implemented…the real example of announcement such as the pictures of announcement where it should be". (I/1/TPACK.BF/8)

> "**PPT is very helpful, because it helped me and my students.** From me as the teacher, I wrote the points…therefore it helped me to remember if I forget what I need to explain and helped me to be fluent in explaining what I need to explain. As the students they can know *"oh Mr. Ardan is explaining the points in the PPT"* I mean they can understand the points and its explanation through my oral explanation". (I/1/TPACK.BF/9)

"**Yes, it helped me**…like I have explained earlier because…if I did not use the technology, if I did not use the media, they would be more…I need to be more extra in explaining. Meaning it as the real example such as *"the example of announcement is like this…"* and then for poem I gave example with eee a picture so they can understand what it implies when they worked on it. As the assignment, I gave two pictures and they should make a poem based on the picture I have given ". (I/1/TPACK.BF/15)

It can be concluded that TPACK framework has helped in terms of delivering material. It helped for both participants and the students. The participants have believed that the technology as the component of TPACK could maximize the process of teaching and learning. While for students, they could easily understand the EFL pre-service teacher's oral explanation with the help of technology.

b. TPACK has helped students to learn better

TPACK has helped students to learn better. They could understand the material easily because it is presented in a visual form such as PPT and video. Also, the students were not just fixated on teacher's oral explanation but they could see the sample of the material being taught directly, and helped them in doing assignments. In the other words, the participants were facilitated by implementing TPACK in the classroom. It is proven in the results of interview as shown in:

"…**TPACK helped my teaching**…because TPACK helped in learning…helped to learn better". (I/2/TPACK.BF/67)

"**As the students they can know** *"oh Mr. is explaining the points in the PPT"* **I mean they can understand the points and its explanation through my oral explanation**". (I/1/TPACK.BF/9)

"…**it helped because…when I taught** so…**I did not need to speak more so by displaying PPT and video**…they they…**looked by themselves**, later when they did not understand it they could ask me". (I/2/TPACK.BF/65)

"Firstly, eee I explained what are the structures of poem and then I gave the examples of poem, I gave guessing activity for example **I showed a picture of a broken car and I showed a picture of love and then I asked students to guess what was it imply and what it would be if the pictures were combined ?.**" (I/1/TPACK.BF/37)"

"Yes, after that students were guessing. When they finished guessing and have their answers, **I showed the poem about 'love is a broken car' and then students have to make a poem related to the picture."** (I/1/TPACK.BF/38)

"…In addition, **I gave students a picture of a kid then they were required to describe that kid through a poem**". (I/1/TPACK.BF /40)

"…Yes for example in cycle 2 what speaking that I used video, so **I showed the video and then later they eee wrote what in the video and then practiced it**". (I/2/TPACK.BF/15)

"If PPT eee **I displayed it and then later asked them to see, I asked them to read** but sometimes they still did not understand yet what I displayed…". (I/2/TPACK.EF/19)

"…**I displayed the picture on the PPT**. The picture for example about descriptive text in cycle 3". (I/2/TPACK.BF/95)

The participant has believed that the students obtained much benefits when learn with technology. For example the students could refer the material they learn with the technology used by the participant.

c. TPACK could attract students' attentions

Also, the technology could attract students' attention because it was presented with an interesting design and conditions that were different from

traditional classroom in general as shown in (I/1/TPACK.TK/9) and (I/2/TPACK.EF/68).

> "**PPT is very helpful, because it helped me and my students.** From me as the teacher, I wrote the points…therefore it helped me to remember if I forget what I need to explain and helped me to be fluent in explaining what I need to explain. As the students they can know *"oh Mr. is explaining the points in the PPT"* I mean they can understand the points and its explanation through my oral explanation". (I/1/TPACK.BF/9)

> "**Because from the use of TPACK…maybe they did not get bored so the learning situation was different…I displayed PPT, video so it helpful**". (I/2/TPACK.BF/68)

The participant has believed that the technology as the component of TPACK framework could attract students' attention. It could be seen through an interesting design of the media used in teaching. In addition, the learning environment was different from other learning environments.

The data in the interview is supported by the data in documents and observation notes.

**Table 4.23** Excerpt of Document Analysis 1 (DLP/1/M.1-P.1/TPACK.BF)

PRACTICE

> **Step 1**: <u>Teacher shows the poem of "love is broken car"</u> (after the student guess the title) and then the teacher asks the some students to read that poem and ask all the students to guess the meaning of vocabularies which contain in the poem.
> **Step 2**: After the students know about the vocabularies, so <u>the teacher asks to the students to interpret the meaning of the poem.</u>

Material/ Media (s)

DLP/1/M.1-P.1/TPACK.BF
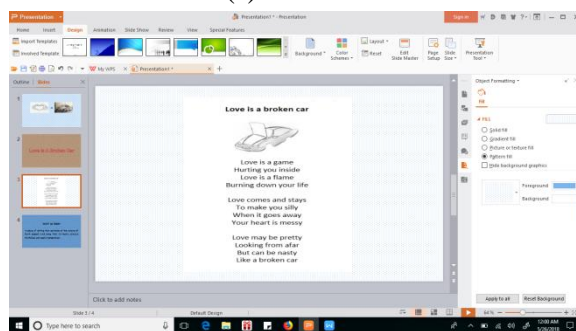
In the practice session, the participants implemented his Technology Knowledge (TK) (Mishra & Koehler, 2006). He displayed the poem on the PPT then asked the students to guess the meaning of it. In addition, Content Knowledge (CK) was also used by the participant. It could be seen in the process of focusing the target language of the material being taught. The participant also asked them to interpret the meaning of the vocabularies that have been mentioned before. The knowledge implemented by the participant in this case is in line with the knowledge defined by Mishra and Koehler (2006) in TPACK.

Table 4.24 Excerpt of Document Analysis 2 (DTM/2/M.2-P.1/TPACK.BF)

	The students were asked to :
DTM/2/M.2-P.1/TPACK.BF	- Guess the meaning of the poem! - Make a poem <u>related to the picture of</u> <u>"LITTLE BOY"</u>! - Read the poem in front of the class!

In the document analysis 2 the participant still implemented the Technology Knowledge (TK) (Mishra & Koehler, 2006). It could be seen in the use of picture of *little boy* displayed by the participant.

Table 4.25 Excerpt of Teaching Practice Observation (O/TPACK.BF/2/P.1)

Meeting   : 1
Date   : 25th April 2018
Topic   : Asking and Giving Opinion
Class Mode : Face-To-Face
Time   : 16.39 Minutes

Time Description	Class Activities	Observation Notes
04.00' 07.35'	- <u>The EFL pre-service teacher</u> <u>introduced the material of the day</u> <u>by displaying it on the PPT</u> - <u>The EFL pre-service teacher</u> <u>showed a video and asked students</u> <u>to write any expression of 'asking</u> <u>and giving opinion' in the video</u> (the technical problem happened because the video could not produce a sound)	<u>Some students seemed</u> <u>very engaged with some</u> <u>activities especially they</u> <u>were paid attention when</u> <u>watching the video</u> by writing any information they got from the video and actively participate in the dialogue session.

The data above revealed that the participants have gained a lot of ease after implementing TPACK framework in the classroom. It could be seen through the help of technology integration together with pedagogy and content knowledge

to help participants to deliver materials. Furthermore, the students felt very helpful with its implementation as it helped them to learn better. This indicated that the participants played an important role in implementing effective technology to improve students' learning (Köse, 2016).