

## CHAPTER IV

### FINDINGS AND DISCUSSION

#### A. Findings

In this chapter, findings of each variable are presented here. The researcher present the data description of the level TPACK of pre-service EFL teachers and how they implement TPACK on their teaching practice in the classroom. That would be presented concisely and meaningfully.

Mishra and Koehler (2006) state that the three main knowledge components—content, pedagogy, and technology—are combined into seven components that make up teachers' TPACK. Among them are: 1) Technology content knowledge (TCK) connects subject matter knowledge with technology; 2) content knowledge (CK) is subject matter familiarity; 3) Pedagogical knowledge (PK) is knowledge of the teaching system; 4) Technological pedagogical knowledge (TPK) is the understanding of how to use technology for diverse teaching methods; 5) Pedagogical content knowledge (PCK) is knowledge of various subject matter teaching techniques; and 7) Technological pedagogical content knowledge (TPACK) is the know-how of using technology for diverse subject matter forms. The TPACK framework serves as the primary assessment for teachers' proficiency in effectively integration technology into the teaching process.

The purpose of this study is to describe the TPACK knowledge of pre-service teacher and how do they implement the knowledge during the teaching and learning process in the classroom. The data findings can be presented in the form of tables with sufficient explanation to make more communicative. The explanation is limited to the fact without researcher's interpretation. There are two data that the researcher got from the participants, first is from questionnaire that use for to identify the TPACK knowledge of pre-service EFL teachers and the second one is from observation during their teaching training program in the school aims to see how do they implement their TPACK knowledge in the classroom. After conducting research at the school the summary of research results is described as follows:

#### 1. TPACK Knowledge of Pre-Service EFL Teachers

Using a questionnaire with 20 replies from the pre-service EFL instructors of UIN Antasari Banjarmasin 2020 academic year 2022/2023, the data analysis of Technological Pedagogical and Content Knowledge (TPACK) of these pre-service teacher is presented below, the data statistical comes from the calculation response of respondents in questionnaire with SPSS.

a. Technological Knowledge (TK) of Pre-Service EFL Teachers of UIN Antasari Banjarmasin

The term "technological knowledge" refers to a broad range of technologies, from simple instruments like paper and pencils to sophisticated digital tools like the internet, digital films, interactive whiteboards, software, and hardware (Schmidt, et. al., 2009)

The table below displays the pre-service English as a foreign language teacher's technology competence based on data analysis from UIN Antasari Banjarmasin 2020.

<b>No</b>	<b>Question items</b>	<b>Mean</b>	<b>Category</b>
1	I know how to solve my own technical problems on a computer.	3.95	Medium
2	I know the basic of computer components.	3.8	Medium
3	I can use computer without problem.	3.75	Medium
4	I able to use Microsoft Office.	4.35	High
5	I am good at using printer.	3.6	Medium
6	I am good at using a projector/lcd.	3.55	Medium
7	I know many differents types of technology.	4.05	High
8	I use the internet as communication media.	4.4	High
<b>Total</b>		<b>3.93</b>	<b>Medium</b>

Based on the table 4.1, there are 8 statement to measure the technological knowledege and totally the Technological Knowledge of

Pre-service EFL teachers UIN Antasari Banjarmasin 2020 is in the level medium with the mean 3.93. The highest score from the table above come to statement from “I use the internet as communication media”, and also the statment “I able to use Microsoft Office” each other get in the high level with score mean 4.4 and 4.35. While in the other hand the lowest score come from the statement “I am good at using a projector/lcd” and also the other statement “I am good at using printer”. These statements in the medium level with score mean each other 3.55 and 3.6.

b. Pedagogical Knowledge (PK) of Pre-Service EFL Teachers of UIN Antasari Banjarmasin

Pedagogical knowledge (PK) refers to a thorough understanding of the procedures, approaches, and techniques used in teaching and learning, which encompass the overarching objectives, values, and aims of education (Mishra & Koehler, 2006).

The table below displays the pre-service English as a foreign language teacher's pedagogy competence based on data analysis from UIN Antasari Banjarmasin 2020

<b>No</b>	<b>Question items</b>	<b>Mean</b>	<b>Category</b>
9	I know ho to assess a student activities in the classroom.	3.8	Medium
10	I can adapt teaching models based on what students currently understand or not.	3.8	Medium
11	I can adapt my teaching style to different students condition.	3.95	Medium
12	I can assess students learning in various way.	3.85	Medium
13	I can use variety of teaching approaches in classroom management.	3.8	Medium
14	I am familiar with the understanding and misconception of the students in general.	3.5	Medium
15	I know how to manage a classroom.	3.7	Medium
<b>Total</b>		<b>3,77</b>	<b>Medium</b>

Based on the table 4.2 there are 7 statements to measure the pedagogical knowledge and we can see that totally pedagogical knowledge of pre-service EFL teachers UIN Antasari Banjarmasin 2020 is in the medium level with the total score 3.77. The highest score from the table above come from the statemnt “I can adapt my teaching style to different students condition”, it is in the level medium with mean 3.95. while lowest score come from statement “I am familiar with the understanding and misconception of the students in general”, it is in the level medium with the mean 3.5.

c. Content Knowledge (CK) of Pre-Service EFL Teachers of UIN

Antasari Banjarmasin

Content knowledge (CK), the knowledge of the teacher about the subject what they want to be learned and taught to the students (Mishra & Koehler, 2006).

The table below displays the pre-service English as a foreign language teacher's content competence based on data analysis from UIN Antasari Banjarmasin 2020.

No	Question items	Mean	Category
16	I have many strategies to develop knowledge and language skill.	3.6	Medium
17	I can speak English very well.	3.85	Medium
18	I can listen English conversation very well.	3.85	Medium
19	I can read English very well.	3.95	Medium
20	I can write in English very well.	3.9	Medium
21	I have a good knowledge of grammatical and English vocabulary.	3.65	Medium
22	I used the latest resources to improve my English skill.	3.7	Medium
<b>Total</b>		<b>3.78</b>	<b>Medium</b>

Based on the table 4.3 there are 7 statements to measure the content knowledge and also we can see totally content knowledge of pre-service EFL teachers UIN Antasari Banjarmasin 2020 is in the

level medium with score mean 3.78. The highest score from the table come from staments “I can read English very well” and “I can write in English very well”, each others get in the medium level with score mean 3.95 and 3.9. In the other hand the lowest score come from statement “I have many strategies to develop knowledge and language skill”, it is in the level medium with the score mean 3.6.

d. Technological Pedagogical knowledge (TPK) of Pre-Service EFL Teachers of UIN Antasari Banjarmasin

Technological Pedagogical Knowledge (TPK) is an understanding of the certain technologies are used in certain ways as media in teaching and learning process. This includes knowing about tools that relates with the technologies that we use (Koehler & Mishra, 2009).

The table below displays the technological pedagogical expertise of UIN Antasari Banjarmasin 2020 pre-service English as a foreign language instructors, based on data analysis.

<b>No</b>	<b>Question items</b>	<b>Mean</b>	<b>Category</b>
23	I can select technology that can improve language teaching approach.	3.65	Medium
24	I can select technology that can improve students learning in grammatical and vocabulary.	3.65	Medium
25	Teacher training program made me think more deeply about how technology might effect the teaching approach I use in my classroom in the future.	4.1	High
26	I can use the technology I was learned to different classroom activity.	4	High
27	I can thinking critically about how to use technology in my classroom.	3.9	Medium
<b>Total</b>		<b>3,86</b>	<b>Medium</b>

Based on the table 4.4 there are 5 statements to measure the technological pedagogical knowledge and also from the table we can see the total score the technological pedagogical knowledge of Pre-service EFL teachers of UIN Anta sari Banjarmasin 2020 is in the level medium with the score mean 3.86. The highest level come from the statements “Teacher training program made me think more deeply about how technology might affect the teaching approach I use in my classroom in the future”, and “I can use the technology I was learned to different classroom activity”, each other’s in the level high with the score mean 4.1 and 4. In other hand the lowest score come from the



statemints “I can select technology that can improve language teaching approach” and “I can select technology that can improve students learning in grammatical and vocabulary”, each others get score 3.65 in the medium level.

e. Technological Content Knowledge (TCK) of Pre-Service EFL

Teachers of UIN Antasari Banjarmasin

Subject matter information that is provided through the use of technology is referred to as technology content knowledge, or TCK. This information pertains to educators' comprehension of how to employ technology to impact their understanding of a specific idea (Schmidt et. al., 2009)

The table below displays the pre-service English as a foreign language teacher's technological content knowledge based on data analysis from UIN Antasari Banjarmasin 2020.

<b>Table 4.5 Pre-Service EFL Teachers' Technological Content Knowledge (TCK) Result</b>			
<b>No</b>	<b>Question items</b>	<b>Mean</b>	<b>Category</b>
28	I know about technologies I could use to understand and do grammatical and vocabulary.	3.65	Medium
29	I know about technologies I could use to understand and learn English skill.	3.8	Medium

30	I know about technologies I could use to understand and practice English.	3.7	Medium
<b>Total</b>		<b>3,71</b>	<b>Medium</b>

Based on the table 4.5 there are 3 statements to measure the technological content knowledge and based on the table also we can see the technological content knowledge of Pre-service of EFL teachers UIN Antasari Banjarmasin 2020 is in the level medium with the total score 3.71. The highest score from the table come from the statement “I know about technologies I could use to understand and learn English skill” it is in the medium level with the score mean 3.8. In the other hand the lowest score come from the statement “I know about technologies I could use to understand and do grammatical and vocabulary” it is in the medium level with the score mean 3.65.

f. Pedagogical Content Knowledge (PCK) of Pre-Service EFL Teachers of UIN Anrtasari Banjarmasin

Because it integrates pedagogy with content with the goal of improving teaching methods in certain subject areas, pedagogical content knowledge varies depending on the content area (Schmidt, et. al., 2009)

The table below displays the pedagogical subject knowledge of UIN Antasari Banjarmasin 2020 pre-service English as a foreign language instructors, based on data analysis.

<b>No</b>	<b>Question items</b>	<b>Mean</b>	<b>Category</b>
31	I know how to create lesson plan.	3.95	Medium
32	I know how to choose an effective teaching approaches to guide students learning materials.	3.4	Medium
33	I know how to choose an effective teaching approach to guide students in English skill.	3.6	Medium
34	I know how to choose effective teaching approaches to guide students in English skill.	3.75	Medium
<b>Total</b>		<b>3.67</b>	<b>Medium</b>

Based on the table 4.6 there are 4 statements to measure the pedagogical technological knowledge and also from the table we can see score total of the pedagogical technological knowledge of Pre-service EFL teachers UIN Antasari Banjarmasin 2020 is in the medium level with the score mean 3.67. The highest score come from the statement "I know how to create lesson plan" it is in the medium level with the mean score 3.95. While the lowest score come from the statement "I know how to choose an effective teaching approach to guide students learning materials" it is in the medium level with the score mean 3.4.

g. Technological Pedagogical and Content Knowledge (TPACK) of Pre-Service EFL Teachers of UIN Antasari Banjarmasin

The definition of technologically pedagogical content knowledge (TPACK) is the understanding of how to apply technology to teaching strategies for different forms of subject matter. The combination of three knowledge domains—technology, pedagogy, and content—is known as technological pedagogical and material awareness (TPACK) (Chai et.al., 2010)

The table below displays the technological pedagogical and content knowledge of pre-service English as a foreign language instructors at UIN Antasari Banjarmasin 2020, based on data analysis.

<b>Table 4.7</b>			
<b>Pre-Service EFL Teachers' Technological Pedagogical Content Knowledge (TPACK) Result</b>			
<b>No</b>	<b>Question items</b>	<b>Mean</b>	<b>Category</b>
35	I can teach lesson appropriately by combining, learning materials, technology, and teaching methods.	3.85	Medium
36	I can strategies that combine the materials, technology, and teaching learning I had learned to my classroom in the future.	3.85	Medium
37	I can select technology that can improve the quality of teaching materials.	3.85	Medium
38	I can select the appropriate technology to be use in classroom so that I can improve students English	3.7	Medium

	skills.		
39	I understand what I teach and how I teach.	4	High
40	I can teach lessons that properly combined grammatical, vocabulary, technology, and teaching methods.	3.65	Medium
41	I can use teaching materials that combine English skills, technology, and teaching approaches.	3.75	Medium
42	I can help others to use technology in teaching methods and materials in classroom.	3.9	Medium
43	I can combine teaching methods, technology, and materials exactly when I'm teaching.	3.7	Medium
<b>Total</b>		<b>3.80</b>	<b>Medium</b>

Based on the table 4.7 there are 9 statements to measure the technological pedagogical content knowledge and from the table we can see total score of technological pedagogical content knowledge of Pre-service EFL teachers UIN Antasari Banjarmasin 2020 is in the medium level with score total 3.80. The highest score from the table come from the statement “I understand what I teach and how I teach” it is in the high level with the score mean 4. While the lowest score come from the statement “I can teach lessons that properly combined grammatical, vocabulary, technology, and teaching methods” it is in the medium level with score mean 3.65.

## 2. Pre-Service EFL Teachers Implement TPACK Knowledge in their Teaching

To know how the pre-service EFL teacher implement the TPACK knowledge on their teaching practice, the researcher do observation to the English class when the pre-service EFL teacher was teaching in class. The observation was done twice on 24 August 2023 and 31 August 2023 at MA SMIP 1946. Following the school research, the research findings are summarized as follows:

### a. Technological Knowledge (TK)

This research present some data from pre-service EFL teachers in term of technology knowledge (TK). According to the findings of observation result for the first teacher was done on 24 August 2023 at MA SMIP 1946, the pre-service teacher exhibited proficient utilization of technological tools in the classroom. Based on the observation checklist result the teacher received a “very good” rating for possessing essential technology tools, such as a laptop and LCD projector, demonstrating a high level of preparedness for lessons. Furthermore, the pre-service teacher excelled in employing technology to enhance instructional strategies, garnering an “excellent” rating in this aspect. This suggests a seamless integration of technology to support and

elevate the teaching-learning process. Additionally, the observation revealed that the pre-service teacher adeptly navigated technology tools without encountering any issues. The teacher received an “excellent” rating, affirming the smooth implementation of the LCD and projector during lessons, highlighting a commendable proficiency in managing technological resources.

The findings of observation result for the second teacher was done on 31 August 2023 at MA SMIP 1946, the pre-service teacher adeptly employed essential technology tools throughout the lesson, effectively utilizing them to enhance intractional strategies. Their seamless integration of technology demonstrated proficiency, resulting in an Excellent rating.

b. Content Knowledge (CK)

In the the term of content knowledge the researcher found based on the observation results of first pre-service teacher, the implementation pre-service teacher about content knowledge is excellent. The pre-service teacher’s mastery is evident in the effective delivery of content during the lesson. The precision and relevance of information presented by the teachers contribute to a through understanding of the subject. Incorporating assignments demosntrate a

proactive approach to reinforcing the topic, fostering deeper comprehension among students.

The observation result of content knowledge of the second pre-service teacher is the same with the first teacher is excellent. The pre-service teacher have good mastery of subject knowledge. Pre-service capacity to convey accurate content, enhancing the overall learning experience for students is very good. The pre-service teacher excellent in reinforcing the lesson through well-designed assignments. The practice not only consolidates students' understanding but also aligns with effective pedagogical strategies, contributing to a robust teaching approach.

The observation result above, show that the content knowledge of the pre-service EFL teacher have good mastery and can implement the knowledge in the good matter ways.

c. Pedagogical Knowledge (PK)

The third aspect for TPACK is pedagogical knowledge (PK). Based on the observation result on 24 August 2023, for the pedagogical knowledge of the pre-service EFL teacher has very good level. The pre-service EFL teacher are familiar with fundamental teaching methods for lesson planning and delivery. The pre-service



teacher employ in-person instruction in a student-centered environment without time limitations. For instance, they they utilize LCD projectors to present video or slide materials during the teaching-learning process.

The pre-service EFL teacher also reviewed the previous materials to gauge students comprehension. Employing resources such as textbooks, dictionaries, visuals, videos, and PowerPoint slides on the projector, they effectively conveyed topics. Individualized questioning by the teacher, addressing students by name, proved beneficial in assessing comprehension and maintaining attention. Additionally, the pre-service teacher employed analytical questions like “What is your opinion about?” and “How do you clarify/identify?” to foster critical thinking skills.

Based on the observation result on 31 August 2023, the researcher find some interesting fact about how the pre-service teacher engage the students who did not attention and also did not understand the lessons. The pre-service teacher give some test and ask them directly for the answer, if they did not get the answer, the test aor the question would give to the other students who know the answer, and then the question give back to the first student who did not know the answer until the student understand. After the test the pre-service

teacher ask their friends to give grades to their other friends while the class is still in progress.

Based on the observation results above, it presents that pre-service EFL teachers have a very good level of pedagogical knowledge (PK). However, the pre-service teacher should be continued and improved their pedagogical knowledge.

d. Technology Content Knowledge (TCK)

The fourth aspect is Technology Content Knowledge (TCK). Based on the observation result on 24 and 31 August 2023 the researcher found that the pre-service EFL teacher has a good level on technology content knowledge. The pre-service EFL teachers employ technology to illustrate intricate concepts that might otherwise pose challenges for comprehension. This approach highlights their ability to select suitable English learning materials aligned with primary competencies for effective technological instruction. Additionally, they adeptly integrate multimedia resources and execute the learning process through technology mediums such as LCDs and laptops. But unfortunately the pre-service teacher did not incorporate a variety of teaching aids, including visually appealing digital resources with layouts that complemented and reinforced the lesson's theme and

content. These aids included relevant images and videos related to the topic. The pre-service teacher just use image related to the topic lessons.

Based on the observation result above the pre-service EFL teachers of UIN Antasari Bnajarmasin have good level of technology content knowledg, they can explore the content of lessons from technology but still have more implement during the teching prosses in the class.

e. Technological Pedagogical Knowledge (TPK)

The fifth aspects of TPACK is Technological Pedagogical Content Knowledge (TPK). Based on the observtaion on 24 and 31 August the pre-service EFL teachers not too good in implement the the technological pedagogical knowledge during teaching learning prosses. During class they still manually using white board to give a test. And give assesment they still manually. In learning, to apply technological pedagogical knowledge, pre-service teacher should be able to utilize technology in conducting tests or assessments, such as involving students in using technology. Conducting tests competitions through various types of games on Android or some platforms, for examples.

Based on the observation result above, the technological pedagogical knowledge of pre-service EFL teachers UIN Antasari Banjarmasin should more explore how to integrate technology and pedagogic during teaching and learning process.

f. Pedagogical Content Knowledge (PCK)

The sixth aspect of TPACK is Pedagogical Content Knowledge (PCK). Based on the observation results on 24 and 31 August 2023, the pre-service EFL teachers have good level on implement the pedagogical content knowledge. The pre-service EFL teachers skillfully choose effective teaching approaches to shape students thinking and learning. They comprehend the material along with its sub –concepts, applying them flexibly. The integration of English language development during instruction fosters creativity and innovation in the classroom. As a result, they exhibit a profound mastery of the content, enhancing their abilities to excel as professional English teacher.

The preservice EFL teachers create their own lessons plans. This preparation show the pre-service teacher really prepare for their teaching practice. The pre-service EFL teacher also make difficult lessons easier for students to understand. The pre-service EFL teachers

also employing methods like educational games to enhance students' skill.

Based on the observation result above show the pedagogical content knowledge of pre-service EFL teachers of UIN Antasari Banjarmasin is in very good level for implement the technological pedagogical knowledge. They know how to integrate pedagogic and content knowledge during teaching and learning process.

g. Technological Pedagogical Content Knowledge (TPACK)

The seventh aspects knowledge is Technological Pedagogical and Content Knowledge (TPACK). According to Mishra and Koehler (2006), TPACK involves understanding how technology and pedagogy intersect to effectively teach content. It delves into knowing the challenges and solutions related to incorporating technology, understanding epistemology theories and students' prior knowledge, and leveraging technology to build upon existing knowledge or enhance and refine theories. TPACK, in their view, is a nuanced realm that intricately weaves together technology, pedagogy, and content knowledge.

The researcher discovered that although the pre-service EFL teachers at UIN Anatasari Banjarmasin have a decent degree of

technology pedagogical content knowledge (TPACK), they still need more practice. This is based on the observation data. The results of this study showed that English teachers were able to exhibit competence in seven dimensions of technology-pedagogical knowledge and content (TPACK): technological knowledge, pedagogical knowledge, content knowledge, pedagogical content knowledge, technological content knowledge, technological pedagogical knowledge, and technological pedagogical-content knowledge.

First, it highlighted that pre-service EFL teachers were proficient in delivering lessons that effectively integrate subject matter, technology, and various teaching approaches. Some employ suitable teaching methods, incorporating supportive technologies like LCD projectors and PowerPoint within the TPACK framework, while others utilize technology to enhance the visual appeal of the content for students. Additionally, the pre-service EFL teachers employed technology to enhance students learning methods during the lesson. They were adequately prepared with a lesson plan and proficient in utilizing technology to deliver pertinent lesson content. The pre-service EFL teachers utilized their self-created lesson plans, adapted from the Kurikulum Merdeka, to facilitate instruction and

demonstrated competence in operating commonly used educational technology tools.

According to the aforementioned observation, pre-service EFL teachers at UIN Anatasari Banjarmasin have a good level of technological pedagogical content knowledge (TPACK), however they still need more practice.

## **B. Discussion**

In this chapter the researcher discusses the findings of the knowledge pre-service EFL teachers of UIN Antasari Banjarmasin 2020 about TPACK and how they implement their TPACK knowledge during teaching practice program in the English class at the school.

### **1. TPACK Knowledge of Pre-Service EFL Teachers**

The researcher gathered details information regarding the TPACK of pre-service EFL teachers of UIN Antasari Banjarmasin. The findings revealed that the pre-service EFL teachers of UIN Antasari Banjarmasin 2020 generally possesses an adequate level of TPACK (mean=3.80, at a medium level). These results indicate that the TPACK of pre-service EFL teachers of UIN Antasari Banjarmasin 2020 have good knowledge and ready to implement their TPACK in the classroom. Despite this readiness, there is room for improvement as the result remain at a medium level,

indicating that the pre-service EFL teachers of UIN Antasari Banjarmasin 2020 need for additional materials on technology integration in learning. Below the chart that displays information regarding overall mean comparisons.

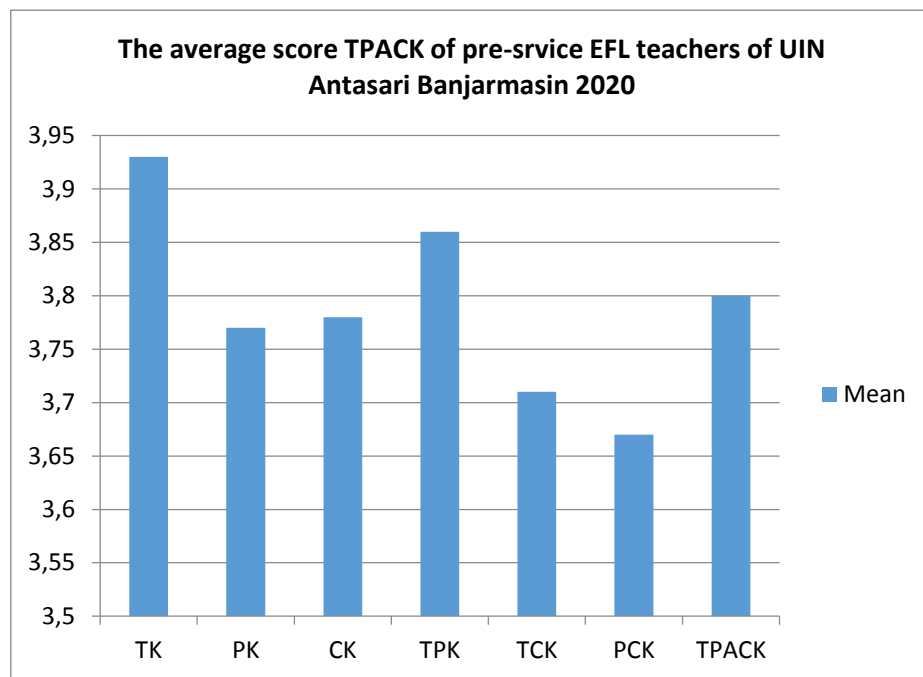


Figure 4.1 The average score TPACK of pre-service EFL teachers of UIN Antasari Banjarmasin 2020

The data displayed in the above chart indicates that the pre-service EFL instructors at UIN Antasari Banjarmasin 2020 possessed solid knowledge in all areas of TPACK, with an overall medium level of proficiency. The pedagogical subject knowledge category had the lowest score (3,71). Understanding how certain topics, concerns, or problems are offered for instruction while being organized, represented, and tailored to



the various interests and skill levels of students is known as pedagogical content knowledge (Shulman, 1986). In this aspect pre-service EFL teachers of UIN Antasari Banjarmasin 2020 have good knowledge and have skill in creating lesson plans and choosing effective teaching approaches but the ability to manage classroom and understand student misconceptions had slightly lower scores. According to a previous study conducted by Hasanah (2022) on the preparedness of pre-service English teachers at UIN Antasari Banjarmasin 2016 for technology-mediated pedagogy, content knowledge (CK) received the lowest score (3.63); technological pedagogical content knowledge (TPACK) scored 3.64; pedagogical knowledge (PK) scored 3.7; technological pedagogical knowledge (TPK) scored 3.75; pedagogical content knowledge (PCK) scored 3.77; technological content knowledge (TCK) scored 3.81; and the aspect of technological knowledge (TK) received the highest score (3.93). From the previous study have same findings with the researcher is in the technological knowledge that be the highest score. Teacher understanding of both new and old technology that can be included into curricula is referred to as technological knowledge. This involves having an understanding of the many digital tools available for use in education, including computers, mobile devices, the internet, digital video, interactive whiteboards, and software (Schmidt, 2009). The pre-service teacher proficiency in using internet, essential tools such as laptops and

projectors and good knowledge for using Microsoft office, knowing many different types of technology and know about the basic of computer components.

## 2. Pre-Service EFL Teachers Implement TPACK Knowledge in their Teaching

Pre-service EFL instructors at UIN Antasari Banjarmasin 2020 who are practicing teaching in MA SMIP 1946 in class 10 are implementing the seven aspect knowledge TPACK. The outcome demonstrated that the instructor had met a number of requirements and implementation indicators for the benefits of TPACK in EFL instruction.

First, technological knowledge (TK) refers to the skill of using technology efficiently, according to Koehler and Mishra (2006). The results of the observation indicated that UIN Antasari Banjarmasin 2020's pre-service EFL teachers were performing at a very high level. The pre-service teachers demonstrated how to effectively use technology in the classroom, including projectors and computers. Additionally, the pre-service teachers seamlessly use technology into their lessons to improve their teaching methods.

According to Koehler and Mishra (2006), the second component of TPACK is content knowledge (CK), which refers to the teacher's

understanding of the material that they wish their pupils to acquire and be taught. The findings indicate that pre-service EFL teachers of UIN Antasari Banjarmasin 2020 effectively organize content by categorizing and presenting it in easily understandable ways, utilizing diverse references. This suggests a strong foundation in content knowledge among pre-service EFL teachers, with minor variations in their English knowledge development. The pre-service teachers consistently provide relevant and precise information aligned with the current lessons topics. Additionally, teachers reinforce lesson content by posing question about the previous material before each class, assigning tasks, and collecting them in subsequent sessions. Despite these strengths, there is a call for continuous improvement and enhancement of their content knowledge by all pre-service teachers.

Thirdly, there is pedagogical knowledge (PK) within TPACK. Koehler and Mishra (2006) defined pedagogical knowledge as having a thorough understanding of the procedures, approaches, and techniques used in teaching and learning, including the overarching objectives, values, and aims of education. The result findings of this research found that the pre-service EFL teachers UIN Antasari Banjarmasin 2020 exhibit strong pedagogical knowledge in teaching strategies. They effectively utilize e-learning in their classroom, employing electronic media to deliver

instructional content. This involves utilizing tools such as LCD for material presentation, creating slides for lectures, and incorporating images to illustrate concepts during class sessions.

Technology-related content knowledge (TCK) is the fourth component of TPACK. Koehler and Mishra (2006) define technological content knowledge as the ability to utilize technology to reflect information, construct instructional materials utilizing technology, and support students in using technology with guidance from the teacher. In the observation result the pre-service EFL teachers UIN Antasari Banjarmasin 2020 effectively utilized tools like LCDs, projectors, and laptops to present instructional content via slides. But in these aspects the pre-service teachers needed to improve in incorporating a variety of visually appealing digital resources.

It was found that pre-service EFL instructors at UIN Antasari Banjarmasin 2020 shown a good level of proficiency in Technological Pedagogical Knowledge (TPK). TPK, the fifth component of TPACK, according to Koehler and Mishra (2006), is understanding how to use technology effectively for a variety of teaching styles. To ensure that students understood the topic better, pre-service teachers used technology-based tools like laptops and applications like Microsoft PowerPoint to deliver presentations. Pre-service instructors should become more adept at

using technology in assessments and involving students in its use in this area.

The results show that the pre-service EFL instructors at UIN Antasari Banjarmasin 2020 have an excellent level of pedagogical content knowledge (PCK). Koehler and Mishra (2006) state that PCK, the sixth element of TPACK, entails comprehending various subject-related teaching strategies. Lesson plans were prepared by the pre-service EFL teachers, who also used excellent teaching strategies to simplify complex material for their pupils. Pre-service instructors also used instructional games to help pupils develop their skills.

It was shown that there were differences in the application of Technological Pedagogical Content Knowledge (TPACK) between English language learners. The term "TPACK" describes the comprehension of how to use technology into teaching approaches for various topic areas (Mishra & Koehler, 2006). The findings indicate that pre-service EFL teachers of UIN Antasari Banjarmasin 2020 demonstrate a good to fairly good proficiency in TPACK aspects. During observations, pre-service teachers seamlessly utilized LCD projectors and laptops for classroom instruction, presenting materials through slide presentations and sharing authentic images or examples without encountering any issues. The results of this study were similar to Hasanah, Nur. The Readiness of

Pre-service English Teachers in Implementation TPACK (Technological Pedagogical and Content Knowledge) in Classroom (2021).

According to Hasanah's research (2021) on pre-service English teachers' readiness for implementing technology-enhanced pedagogy and content knowledge (TPACK) in the classroom, pre-service EFL teachers at UIN Antasari Banjarmasin (2016) are at a medium readiness level for TPACK, indicating that they can effectively integrate technology into the teaching and learning process. This study is similar to the researcher study in that it focuses on pre-service EFL teachers in TPACK, but the findings are different. This study aims to describe the Technological Pedagogical and Content Knowledge (TPACK) Readiness of pre-service EFL teachers at UIN Antasari Banjarmasin (2016). The researcher study focused on the TPACK knowledge of pre-service EFL teachers at UIN Antasari Banjarmasin 2020 and how they apply it in their teaching practice program in the school's English class.