



Technological Pedagogical Content Knowledge (TPACK) Concept of the Teacher Competence in English Teaching at Junior High School

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ABSTRACT

In this study, the researchers is interested in examine the teachers of junior high schools in Banjarmasin to find out how English teachers understanding of the TPACK concept and apply the TPACK concept in English teaching. The researchers used Mix method. The participants in this study are 5 teachers of English at Junior High schools in Banjarmasin. Data collection techniques used in this study were questionnaire, observation, and interviews. Meanwhile, in analyzing the data using data analysis, the researcher uses calculations in a Likert scale to calculate the results of the questionnaire. Also, from Miles and Huberman, namely data collection techniques, data reduction, data display, and conclusion drawing. The result of this study, teachers understanding of the Technological Pedagogical Content Knowledge (TPACK) shows positive result with percentage 79.8% (80%). It means teachers understanding of the (TPACK) concept at MTsN 3 Banjarmasin get "Good" grades. While in implementing, TPACK concept on English teacher's competence are good at applying the TPACK concept, especially in the aspects of TK, CK, PK and PCK in the classroom, it is just that the facilities available in schools are limited so they cannot use technology in learning to the fullest.

Keywords: Technological Pedagogical Content Knowledge, Teacher Competence, English Teaching

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INTRODUCTION

The development of the era of information and communication technology has influenced changes in the scope of various fields, especially in education. Previously, teachers in schools only focused on professional knowledge of certain materials. Then, they started to involve students to participate in class actively. When they focus on implementing these technologies, they sometimes ignore interactions between students and teachers or between students (Koehler & Mishra, 2005, p. 145). As a result, teachers need to integrate technological knowledge, pedagogy, and teaching content or a combination commonly called

Technological Pedagogical Knowledge (TPACK) in a balanced way. The teacher's ability to apply the TPACK concept is very important in the process of continuous learning. Especially with the current situation in learning that requires teachers to be able to master technology.

In this case, a teacher can carry out teaching activities based on knowledge of the material being taught (content knowledge), how to teach a material (pedagogical knowledge), and technology knowledge (technological knowledge) that are integrated (Mishra & Koehler, 2006, p. 1044). An old theory states that the teaching process requires knowledge of content and pedagogy and knowledge of the results of both knowledges, namely pedagogical content knowledge (Shulman, 1986, p. 13). Therefore, a theory that complements the previous theory pioneered by Mishra & Koehler emerged, namely "Technological Pedagogical Content and Knowledge)

Therefore, teachers must develop their teaching abilities, and follow the development of science and technology. The English teacher is no exception where the teacher must be able to explore interesting learning and teaching applications for students. So, the students are not bored in learning. Because in this case in learning English there are still many students who lack interest in learning, whether it is in terms of teacher quality or students' understanding themselves. Therefore, this research is interesting for the author because the TPACK concept is very important for teachers to understand the TPACK concept, because it will broaden the teacher's insight regarding the skills in terms of technology needed by English teachers today. Especially for English teachers at the junior high school. English teachers who do not have the skills to integrate technology into their learning process will be out of date. TPACK is an approach that combines three types of knowledge: content knowledge, pedagogical knowledge, and technological knowledge. Technological Pedagogical Content Knowledge (TPACK) is the theoretical basis for this research because it will support and assist teachers in identifying what they need to know about the use of ICT in learning. Furthermore, it will guide teachers in designing and implementing strategies that will assist the development of e-learning implementation (Schmidt et.al., 2009, p. 23).

This study was carried out to answer the following research question: a. How is the English teachers' understanding of the TPACK concept at Junior High School? b. How is the implementation of the TPACK concept on English teacher competency in English teaching at Junior High School?

METHOD

In conducting this research, the researcher uses a Mix Method. Mixed method is a research design that guides philosophical assumptions and research methods. In this study, the researcher used the Mix method, which is a combination of quantitative and qualitative. For RQ 1, the researcher used quantitative methods and for RQ 2 the researcher used qualitative methods. The researcher takes place in MTsN 3 Banjarmasin, located on Mahligai and Bhakti streets, Banjarmasin, KM 7 as location of the study. The researcher wants to know how the teacher's understanding of TPACK concept. The participants in this study were 5 teachers of English at MTSN 3 Banjarmasin

To obtain data and information needed in research, researchers determine data collection techniques that are by the problems to be studied. In this study, researchers used several data collection techniques as follows:

a) Observation

In this research with observation techniques, the researcher directly to MTsN 3 Banjarmasin to see events or observe objects directly and record things that are needed,

as well as take documentation from places or research locations related to the application of the TPACK concept to teacher competence in language learning English.

b) Questionnaire

This questionnaire is intended to answer research question number 1, namely: *How's the English teachers' understanding of the TPACK concept at Junior High School?* The questionnaire was given to the English teacher at MTsN 3 Banjarmasin. The questionnaire adapted from Likert scale consisted of satisfaction levels, namely strongly disagree, disagree, uncertainly, agree, and strongly disagree. In this study, all participants were asked to give their respective satisfactions in twenty sub-competencies regarding the teacher's understanding of the TPACK concept.

c) Interview

Meanwhile, this interview is intended to answer research question number 2, namely: *How is the implementation of the TPACK concept on English teacher competence in English teaching at junior high school.?* In this study the researchers used 11 questions regarding their implementing TPACK concept in English teaching.

FINDING

The researcher would provide the data by using questionnaires, interviews and observations. A total of 20 questionnaires were filled out by 5 English teachers knowing their understanding of the TPACK concept and there were 11 questions to answer the application of the TPACK concept in learning English. In this section, the findings that are displayed based on the two researches question raised as follow:

A. The Teachers Understanding of the TPACK Concept at Junior High School

PERCENTAGE OF THE ENGLISH TEACHERS UNDERSTANDING OF THE TPACK CONCEPT AT JUNIOR HIGH SCHOOL

Aspects	Percentage
Technological Knowledge	81,6%
Content Knowledge	84%
Pedagogical Knowledge	80%
Pedagogical Content Knowledge	80%
Technological Content Knowledge	80%
Technological Pedagogical Knowledge	76%
Technological Pedagogical Content Knowledge	72%

Index formula%: $\text{Total Score} / Y \times 100$
 $399 / 500 \times 100 = 79,8\%$ (Good category)

B. The Implementation of the TPACK Concept on English Teacher Competence in English Teaching at Junior High School

The findings of the second research question are displayed in relation to implementation of the TPACK concept on English teacher competence in English teaching. The data collection technique used was through observation and interviews with 11 questions related to the implementation of the TPACK concept in learning

English. In this second research question, the researcher conducted observation with 5 English teachers, but there is a teacher who cannot be observed due to time constraints. The data obtained, as follows:

a. Teacher A

In this class, the teacher uses a laptop as the technology she usually uses. The use of this laptop is to make it easier for teachers to provide teaching materials that will be taught to students in class. It's related based on the results of interviews with questions about Technological Knowledge, almost all respondents answered that they use technology to support learning. This is in accordance with the data obtained by researchers, as follows:

"Jelas saya menggunakan teknologi, seperti internet untuk membrowsing materi untuk melengkapi materi yang ada dibuku kemudian laptop dan terkadang juga menggunakan LCD."

"Obviously I use technology, such as the internet to browse material to complement the material in the book, then a laptop and sometimes also use the LCD." (EFL 2)

The teacher divides the students into 8 groups to look for material about "Text Report". Students are given the freedom to search for the material, whether from the Internet, YouTube or various other learning applications. It is related to the application of the TPACK concept in the classroom which is supported by interview data, as follows:

"Penggunaan teknologi dalam Bahasa Inggris penting untuk memudahkan kita dalam pembelajaran. Memudahkan siswa juga untuk mengeksplorasi sendiri materi yang akan dipelajari." "The use of technology in English is important to facilitate our learning. It also makes it easier for students to explore the material to be studied on their own." (EFL 2)

b. Teacher B

The researchers see that teachers have quite mature preparation for the material being taught, which uses mandatory books from schools and other supporting books. In terms of the Content Knowledge aspect, the teacher already has sufficient knowledge of the material being taught. It also, supported based on the data interview, as follows:

"Sumber materi pelajaran sudah disediakan sekolah, karena itu buku wajibnya. Tetapi dibuku tersebut masih kurang lengkap, jadi saya menambahkan materi mendapatkannya di internet, youtube."

"The source of the subject matter has been provided by the school, because it is a mandatory book. But the book is still incomplete, so I added the material to get it on the internet, youtube." (EFL 4)

c. Teacher C

Teachers use speakers as a means of technology to support the learning process. It is related in Technological Aspect, and support by questionnaire data:

"Biasanya saya menggunakan rekaman suara (record), tapi record digunakan pada saat online learning. Kalau untuk tatap muka menggunakan speaker.."

"Usually I use voice recordings (records), but records are used during online learning. For face to face, I use speakers...." (EFL 1).

It is also supported by based on the questionnaire data, it is related to the Technological Pedagogical Knowledge aspect:

“Tentu saja efektif karena pembelajaran menggunakan teknologi/media membuat siswa lebih paham dalam memahami materi pembelajaran. Karena Bahasa Inggris bukan Bahasa ibu mereka, jika hanya menggunakan metode ceramah akan membuat siswa cepat bosan.”

“Of course, it is effective because learning using technology/media makes students understand better in understanding the learning material. Because English is not their mother tongue, if they only use the lecture method, students will get bored quickly.” (EFL 1)

d. Teacher D

Before starting the lesson, the teacher checks student attendance first through class attendance. After that, read the prayer together before starting the lesson. The teacher reviews the material that has been studied at the previous meeting and asks students to explain the main points of the previous material. In this meeting, the teacher continues the next material, namely the "Comparative" material. Also, the teacher gave some examples of sentences using "Comparative". In the view of the researcher, the teacher has a fairly good mastery of the material, where the teacher gives a clear and detailed explanation.

Before closing the lesson, the teacher asked the student representatives to read the dialogue text in front of the class. And the teacher gives applause to students who have read.

DISCUSSION

The aim of this part is used to answer the first research question which is about teacher's understanding of Technological Pedagogical Content Knowledge (TPACK) by using questionnaire. The researcher then divided the result of the questionnaire based on the aspects of TPACK which has 7 aspects which is mentioned below:

1. The English Teachers Understanding of the TPACK Concept at Junior High School

a) Technological Knowledge

Based on the data in findings from 5 teachers of English shows that 5 teachers got percentages of 81,6%. It means that the teacher's understanding of the understanding of Technological Knowledge (TK) based on the Likert score is at the "Excellent" level.

b) Content Knowledge

The result of 5 teachers of English on understanding in Content Knowledge (CK) from the questionnaire showed that 84%. So, it could be classified that students' level related to content knowledge (CK) is "Excellent".

c) Pedagogical Knowledge

From 5 teachers of English in level "Good" English class regarding understanding in Pedagogical Knowledge (PK) from the questionnaire showed that 80%. It showed that the teacher's understanding based on the Likert scale was in the "Good" level in terms of understanding Pedagogical Knowledge (PK).

d) Pedagogical Content Knowledge

Based on data taken from 5 respondents of English teachers, the percentage in understanding about Pedagogical Content Knowledge (PCK) is 80%. It can be inferred that the teacher's understanding of Pedagogical Content Knowledge (PCK) based on the Likert scale is in the "Good" level.

e) Technological Content Knowledge

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Teachers' understanding of Technological Content Knowledge (TCK) based on the results of the questionnaire is in the percentage of 80%. It means it can be ascertained to be in the "Good" level in terms of Technological Content Knowledge (TCK)

- f) Technological Pedagogical Knowledge Technological Pedagogical
The result of teacher's understanding of Technological Pedagogical Knowledge (TPK) from the questionnaire showed that 76%. From this 76% can be categorized that their level in understanding technological pedagogical knowledge (TPK) is "Good".
- g) Technological Pedagogical Content Knowledge
Based on the data from the questionnaire, English teachers showed 72%. Based on the Likert scale, it shows that the teacher's understanding of the Technological Pedagogical Content Knowledge aspect is at the "Good" level.

Based on the results obtained by the researchers through the questionnaire, the researchers tried to interpret the results of all the answers that the English teacher had answered regarding their understanding of the 7 aspects of Technological Pedagogical Content Knowledge (TPACK) through the formula contained in Chapter III. From the results of this formula, it can be obtained that the teachers understanding of the TPACK concept at junior high school got a percentage result of 79.8 (80%) with predicate based on the Likert scale being in the "Good" category.

2. The Implementation of the TPACK Concept on English Teacher Competence in English Teaching at Junior High School.

Based on the data obtained through interviews and observations related to the first aspect, namely Technological Knowledge (TK), from the interview data they generally use various kinds of technology to support the learning process such as: google classroom, youtube, Kahoot! and computers. Technological Knowledge is teacher knowledge about technology, software, and applications used to support the learning process (Sintawati & Indriani, 2019). In this case, teachers do not only master traditional technology but new technologies that continue to develop over time.

In the aspect of Content Knowledge (CK), the teacher has a fairly good mastery of the material for learning English. Content knowledge (CK) is teachers' knowledge about the subject matter to be learned or taught (Mishra, 2006). As a teacher they should be able to master the material that will be taught. Researchers see, English teachers generally have mandatory books that have been provided by the school. and they also add material from other sources such as youtube, the internet.

Based on the observations made by the researchers, the teacher must also provide critical answers to students if there are students who do not understand the material taught by the teacher. This relates to the Content Knowledge aspect, where the teacher must master the materials he teaches.

From the data obtained, English teachers use various teaching methods, as in the findings in Q.3, EFL1/2/3/4/5 has a variety of different teaching methods. Especially in teaching speaking skills, such as roleplay, flashcard, guess picture etc.

In this aspect it relates to Pedagogical Knowledge (PK), teachers' deep knowledge about the processes and practices or methods of teaching and learning. In the findings, based on the data obtained through observation, the researcher found various kinds of activities carried out by the English teacher in the class such as: 'Odd/Even' games, and also throwing paper balls. This is related to the Pedagogical Content Knowledge (PCK) aspect. Pedagogical Content Knowledge (PCK) is

consistent with and similar to Shulman's (1986) idea of knowledge of pedagogy that is applicable to teaching specific content.

However, almost all English teachers stated that they needed a laboratory language that could support the learning process in English teaching. In their experience, teachers cannot use the Language Lab facilities properly because the headset to be used is damaged. Therefore, they cannot use these facilities to the fullest. Technology Pedagogical content knowledge refers to teachers' knowledge to integrate technology into their teaching in any content area especially in English teaching. Teachers have an understanding of the three basic components of 72 knowledge (CK, PK, TK) by teaching content using appropriate pedagogical methods and technologies

CONCLUSION

For the first research question, it was discussed about teachers understanding of the Technological Pedagogical Content Knowledge (TPACK) concept at MTsN 3 Banjarmasin. Based on the results of questionnaires that have been distributed to 5 English teachers with 20 statements shows positive result with percentage 79.8% (80%). It means teachers understanding of the (TPACK) concept at MTsN 3 Banjarmasin get "Good" grades. For the second research question, it was discussed about the implementation of the TPACK concept on English teacher competence in English teaching at Junior High School. It showed that, English teacher's competence are good at applying the TPACK concept, especially in the aspects of Technological Knowledge (TK), Content Knowledge (CK), Pedagogical Knowledge (PK) and Pedagogical Content Knowledge (PCK) in the classroom. Teachers can teach using appropriate technology based on the material being taught and apply learning strategies and use different technologies in learning practices. When teachers use technology in learning, students respond very happy, they are enthusiastic and more active 74 in learning. and this, it is very important to apply the TPACK concept in learning, because it can be a student more active in learning. It's just that the facilities available in schools are limited so they cannot use technology in learning to the fullest

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