



Implementation of TPACK Framework in Learning Indonesian Language: Perceptions of Rural Middle School Students

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Abstract. Various studies have shown that the use of technology in rural schools is still lagging behind compared to urban schools. This study aims to describe the perceptions of rural junior high school students towards the application of TPACK in learning Indonesian which includes reading, listening, watching, speaking, and writing skills. The study was conducted using a case study approach involving 126 8th grade junior high school students in rural Central Java. The research data were quantitative and qualitative collected through questionnaires, interviews, and FGDs. Quantitative data were analyzed descriptively with percentage calculations, while qualitative data were analyzed using an interactive model. The results of the study showed that according to students, the application of TPACK was most often used in reading and speaking learning. In reading learning, teachers use technology to deliver material about test characteristics and examples. The media used are power points and videos downloaded from YouTube and displayed via LCD or broadcast via Whatsapp groups. In speaking learning, teachers use technology to present examples of speaking activities (giving speeches or delivering news) in the form of audio and audio visuals via radio or video distributed via Whatsapp groups. However, the use of smartphones should no longer be applied because there is a prohibition on students bringing them to school at the request of their parents. Most students stated that there were teachers who took advantage of the dispute. The findings of this study indicate that technology has been utilized in Indonesian language learning in rural junior high schools although at a minimal level.

Keywords: TPACK, Indonesian Language, Junior High School.

1 Introduction

The COVID-19 pandemic has had a significant impact on education. As many as 46 countries in five different continents have closed schools and 26 of them have closed schools completely nationally (Huang, et al., 2020: 1). Other studies add that more than 100 countries in the world have closed schools (Onyema, et al., 2020: 108). During the school closures, the face-to-face learning system was changed to distance learning (PJJ) or online learning (Affouneh, Salha & Khlaif, 2020: 1; Almaiah, et al., 2020; Blume, 2020: 880). In Indonesia, distance learning is also implemented through

Circular Letter Number 4 of 2020 issued by the Minister of Education and Culture on March 24, 2020. With this policy, teachers and students must adapt quickly to carry out learning, one form of which is online learning as an alternative to remain productive and maintain the learning process so that it continues (Suryaman, et al., 2020: 524; Rasmitadila, et al., 2020: 90; Purwanto, et al., 2020: 1973).

Technology, information, and communication have become important needs during the COVID-19 pandemic, especially for the teaching and learning process (Mailizar, Almanthari, Maulina & Bruce, 2020: 1). Changes in the learning system require teachers to be able to utilize digital media to deliver learning materials to students and organize communication in the classroom (Kerres, 2020: 1). It is a must at this time, teachers are required to master technology so that it can be integrated in their classes (Popa, et al: 2020: 10). The dependence of online learning on technological equipment and the internet is a major challenge for institutions, teachers and students. (Adedoyin & Soykan, 2020: 1).

The demand to integrate technology in learning during the COVID-19 pandemic raises aspects of competence that teachers must master. Teacher competence is understood as a cognitive performance disposition that is functionally responsive to situations and demands in certain conditions (Konig, Biela & Glutsch, 2020: 4). Teachers must be creative in utilizing material knowledge, pedagogical experience and new technologies as guidelines for organizing online learning. This specific knowledge can be broadly described as technological, pedagogical, and content knowledge or TPACK (Galanti, Baker, Leong & Kraft, 2020: 2). TPACK is a framework that emphasizes the interaction between three elements: material, pedagogy, and technology. These three elements are important for developing good teaching practices because teachers use technology effectively to teach (Zhang, 2020: 39).

TPACK plays an important role during online learning during the COVID-19 pandemic. Lie, et al. (2020: 804) found the interaction of five factors related to the online learning process on the level of engagement. The five factors are students, teacher experience with online learning, technological knowledge, pedagogical knowledge, and support systems. Kholik, et al. (2020: 8634) also stated that technological, pedagogical, and content knowledge (TPACK) are important factors in determining the success of online learning. TPACK is needed by teachers to integrate technology and teaching certain materials into one complete package.

The importance of TPACK teachers competency is shown by many studies that examine TPACK competency in various fields, such as Rap, et al. (2020) who studied chemistry teachers; Nasri, et al. (2020) physical education and English; Delcker & Ifenthaler (2020: 1-15) who studied vocational teachers. Even TPACK research for English teachers has also been conducted extensively (Wu & Wang, 2015; Cheng, 2017; Koçoğlu, 2009; Oz, 2015). In Indonesia, TPACK research on language teachers has also been conducted more on English teachers such as research by Ammade, Mahmud, Jabu & Tamir, 2020; Mahdum, 2015; Rahmi, 2020; Taopan, Drajadi, Sumardi, 2020).

The use of technology in language learning, especially writing, is not new (Purnawarman, Susilowati & Sundaya, 2015: 242). Ghanizadeh, et al. (2015: 73) explain that technology can support the development of all language skills (eg, listening, writing, reading, speaking, grammar, and vocabulary). Mare & Mare (2020: 3) added that the use of online applications to teach writing is recommended because it

can help increase student participation, collaborative activities, and stimulate students, which cannot be easily found in the classroom. Online writing learning has advantages over conventional methods because communication during learning is mostly done through writing (Warnock, 2009: xi). Therefore, online learning during COVID-19 has the opportunity to improve the technological competence of teachers and students.

Tseng, Chai, Tan & Park (2020: 2) stated that the increasing importance of technology to be integrated into language teaching, requires special focus on how language teachers represent linguistic material using appropriate technology according to their teaching methods. This process involves the conceptualization and application of teacher technological, pedagogical, and content knowledge (TPACK). The TPACK framework is said to be a useful measuring tool for assessing technological competence (Inpeng & Nomnian, 2020: 370). TPACK helps researchers to play an important role as a theoretical guide that guides the research process analyzing teachers' TPACK abilities (Mishra & Koehler, 2006: 1039; Koehler, Shin & Mishra, 2011: 17).

The urgency of utilizing technology in learning is the basis for the importance of measuring the implementation of TPACK in each class, including in Indonesian language learning. From the results of this study, the quantity and quality of TPACK implementation can be identified so that it can be the basis for policy making that seeks to improve the quality of education in Indonesia, including in rural areas. Referring to the urgency, the problem raised in this study is as follows: "How are the perceptions of students in rural junior high schools regarding the implementation of TPACK in learning to read, listen, speak, and write?"

2 Method

This research was conducted in 3 junior high schools in rural areas from three districts in Central Java whose schools were identified as having low internet connections. This research was conducted using a mixed-method, namely qualitative and quantitative with a case study approach. According to Creswell (2010: 20) a case study is a research strategy that attempts to answer the questions "what, how, and why". The focus of the research is the perception map of junior high school students about the application of TPACK in learning Indonesian. The participants were 126 grade 8 students who had responded to the questionnaire developed by the researcher in full. Thus, the selection of participants was carried out using a purposive sampling technique.

The research data include students' perceptions of the use of technology (application of TPACK) in learning to read, listen, speak, and write). The data were collected through a questionnaire which was then followed by an in-depth interview. Therefore, the research data includes quantitative and qualitative data. Quantitative data were obtained from questionnaires, while qualitative data from interviews. To analyze quantitative data, the percentage of students who choose 4 response options "always, often, rarely, and never" is calculated for each statement. As for analyzing qualitative data, an interactive model is used. Interactive data analysis has the following stages:

data collection, reduction of existing data obtained, arranging the reduced data according to their groups, and drawing conclusions (Miles & Huberman, 2014:16-20).

3 Result and Discussion

To measure students' perceptions of the use of information technology, a questionnaire containing 4 statements was used. Data from the questionnaire are presented quantitatively in the form of a percentage of student responses to each statement item, while data from the interview are presented qualitatively in the form of interview excerpts. The questionnaire data are presented in Table 1.

Table 1. Percentage of students responses

| States | | Percentage | | | |
|--------|---|------------|-------|--------|-------|
| | | Always | Often | Seldom | Never |
| 1 | Teachers utilize information technology in reading learning | 30% | 38% | 17.5% | 14.5% |
| 2 | Teachers utilize information technology in listening learning | 11% | 20.5% | 42.5% | 26% |
| 3 | Teachers utilize information technology in speaking learning | 26% | 34% | 28.5% | 11.5% |
| 4 | Teachers utilize information technology in writing learning | 11% | 22% | 35% | 32% |

3.1 Utilization of Information Technology in Reading Learning

Regarding the first statement, namely "Teachers utilize information technology in reading learning", 30% of students stated "always" and 38% stated "often". They explained that (1) the technology used was in the form of power point (ppt) displays, videos, and Google forms; (2) PPT and videos were used to convey material on text characteristics and examples; (3) PPT displays were also used to present texts that were reading materials for group assignments and tests; (4) videos from Youtube were shared with students via Whatsapp or discord groups; while (5) Google forms were used to work on tests. Students who stated "rarely" explained (1) the technology used was in the form of power point displays and (2) technology was used to display text characteristics and texts that were reading materials for students to work on group assignments and tests. This information can be linked to the following student statements.

“The Indonesian language teacher in my class uses PPT or Canva and videos every time they teach reading. PPT and Canva are also videos shown on the LCD. The teacher most often uses Youtube videos to show material about the meaning of text, parts of text, and texts for group assignments. To give tests, the teacher uses Google Form, so that students are allowed to bring cellphones, the teacher asks permission from the guidance and counseling teacher first” (students who always respond)

“Out of 6 reading lessons last semester, 2 times the teacher used videos sent to Discord to explain text material, but after that they did not use Discord because there was a ban on students bringing cellphones to school. So the next 2 times videos downloaded from

YouTube were shown on the LCD because the room with the LCD was used alternately by other classes” (students who often respond)

“I think to teach listening last semester, the teacher used videos downloaded from Youtube twice and then sent to the Whatsapp group because there was no LCD in the class. The videos were about the characteristics of the text being taught,” (students who rarely respond).

“The Indonesian language teacher only uses books. We were asked to read books, then discuss and do assignments” (students who responded never).

3.3 Utilization of Information Technology in Listening Learning

Regarding the second statement, namely "Teachers utilize information technology in listening learning", only 11% of students stated "always" and 21% stated "often". They said that (1) the technology used was in the form of radio and video broadcasts, (2) the technological equipment was used to play texts for students to listen to, (3) the radio prepared by the teacher from his home to play news, (4) Youtube videos containing news texts or fairy tales were played to students via the teacher's cellphone or shared via Whatsapp groups. Students who stated "rarely" explained that (1) the technology used was in the form of radio and (2) the media was used to teach news texts. This information can be linked to the following student statements.

“Every time we teach speaking, the Indonesian teacher provides a good speaking model through recordings and videos. The recordings are played through a laptop and shown on an LCD. The teacher also plays dialogues from audio recordings or videos from YouTube” (students who always respond)

“Out of 4 times teaching speaking last semester, 2 times the teacher used videos from YouTube to give examples of giving a speech and stand-up comedy. The videos were shown on an LCD in the computer lab” (students who often respond)

“I think last semester the teacher taught speaking 3 times. The teacher used a cellphone once to give an example of how to convey the contents of the news orally taken from YouTube. The 2 speaking lessons did not use media,” (students who rarely responded).

“In all lessons, the Indonesian teacher never used PPT, videos, and others. There were 3 speaking lessons and all were given examples by the teacher practicing them” (students who never responded).

3.3 Utilization of Information Technology in Speaking Learning

Regarding the third statement, namely "Teachers utilize information technology in speaking learning", 26% of students stated "always" and 34% stated "often". From the interview, the group explained that (1) the technology used was in the form of voice or video recordings from Youtube, (2) technological equipment was used to provide examples of dialogue, speech, and drama, (3) some voice recordings were made by teachers, some were not made by teachers, and (4) videos from Youtube were shown on LCD or shared with students via Whatsapp or discord groups. Students who stated "rarely" were 28% and from the interview it can be concluded that (1) the technological equipment used was radio and video and (2) technology was used to provide examples of speaking, for example conversations and storytelling. This information can be linked to the following student statements.

“Every time we teach speaking, the Indonesian teacher provides a good speaking model through recordings and videos. The recordings are played through a laptop and shown on an LCD. The teacher also plays dialogues from audio recordings or videos from YouTube” (students who always respond)

“Out of 4 times teaching speaking last semester, 2 times the teacher used videos from YouTube to give examples of giving a speech and stand-up comedy. The videos were shown on an LCD in the computer lab” (students who often respond)

“I think last semester the teacher taught speaking 3 times. The teacher used a cellphone once to give an example of how to convey the contents of the news orally taken from YouTube. The 2 speaking lessons did not use media,” (students who rarely responded).

“In all lessons, the Indonesian teacher never used PPT, videos, and others. There were 3 speaking lessons and all were given examples by the teacher practicing them” (students who never responded).

3.4 Utilization of Information Technology in Writing Learning

Regarding the first statement, namely "Teachers utilize information technology in writing learning", 11% of students stated "always" and 22% stated "often". They explained that (1) the technology used was in the form of PPT, Canva, or video displays (2) technological devices were used to present text characteristics, text examples, or images that were the topic of the writing, (3) PPT displays were also used to present examples of making essay outlines, and (4) videos downloaded from YouTube to provide writing topics were sometimes shared with students via Whatsapp or Discord groups. Students who stated "rarely" were 35% of the interviews. It can be concluded that (1) the technological equipment used was in the form of PPT displays and (2) technology was used to display the characteristics of the types of texts that students would write. The 33% who stated that teachers never used technology-based devices said that teachers only used textbooks. This information can be linked to the following example of student statements.

“The Indonesian language teacher gave writing lessons 4 times. The teacher used PPT, Canva, and videos in writing lessons. The technology devices were used to explain text parts and examples of texts. Some of the videos from Youtube that were shown were the same as those used in reading lessons” (students who responded always)

“Out of 5 times teaching writing, 3 times the teacher used videos from Youtube to explain text material. The teacher used PPT that was shown via LCD to present writing instructions” (students who responded often)

“I think last semester, there were 4 writing lessons. The teacher used Youtube videos 1 time. The video was about the characteristics of the text that students would write. The videos from Youtube were presented via the teacher’s cellphone.” (Students who responded rarely)

“Last semester there were 4 writing lessons. The teacher did not use PPT or videos because the LCD was broken” (students who responded never).

4 Conclusion

The results of this study can be concluded that according to students, the application of TPACK is most often used in reading and speaking lessons. In reading lessons, teachers use technology to deliver material about text characteristics and examples. The media used are power points and videos downloaded from YouTube and displayed via LCD or shared via Whatsapp groups. In speaking lessons, teachers use technology to present examples of speaking activities (giving speeches or delivering news) in the form of audio and audio visuals via radio or videos shared via Whatsapp groups. Some students stated that there were teachers who used Discord in reading lessons. The findings of this study indicate that technology has been utilized in Indonesian language learning, although at a minimal level.

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