

CHAPTER II

LITERATURE REVIEW

This chapter consists of Theoretical studies and Previous Studies related to the research topic. Those all are described more below:

A. Theoretical Study

1. Teachers' Perception

According to McDonald (2011), perception is uniquely based on individualized experience. One can only draw from what is known to oneself, and it is complex and multi-layers. In this study, the researcher will look at teachers' perceptions of online learning and the TPACK framework. Many teachers think that the online learning system has more weaknesses than advantages. According to Hayati (2020), the disadvantages of online learning include: 1) a less interactive learning process, 2) a tendency to disregard academic aspects, 3) a learning process that is more focused on training than education, and 4) a shift in the teacher's role; previously, teachers were expected to master traditional learning approaches, but now they are expected to understand ICT as a learning medium. 5) Students' motivation to learn decreases and 6) not all fields have consistent internet connectivity and facilities. With the development of technology, teachers must develop their skills. Teachers must master the technology associated with the lesson plans that were

designed. Technological Pedagogical Content Knowledge (TPACK) makes teachers more helpful because the preparation for learning is more mature and structured. According to Nazari (2019), instructors' impressions of TPACK include searching the internet for appropriate examples, summarizing all of the important ideas, producing colorful slides with standards, and presenting them in class. Create a lesson plan and determine the appropriate technical means for communicating the effectiveness of the lesson. Good education does not simply mean adding technology to existing education and content areas. Instead, introducing technology leads to the expression of new concepts and requires the development of sensitivity to dynamic transactional relationships between all three components proposed by the TPACK framework.

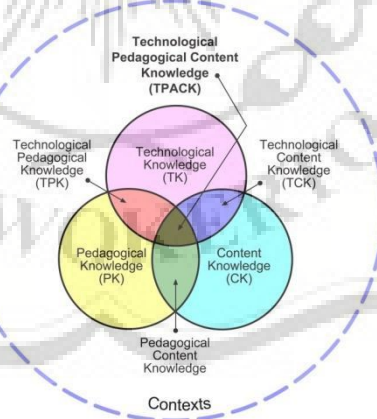
2. Technological Pedagogical and Content Knowledge (TPACK)

TPACK, or technological pedagogical and content knowledge, is the bundle of knowledge and abilities for incorporating technology into education (Suyamto et al., 2020). Technology (computers, the internet, digital video, and so on) is combined with pedagogy (teaching and learning methods and approaches), and content (subject matter) in the TPACK model (Harris, Mishra, & Koehler, 2009). In line with this explanation, Rahayu (2017) states that TPACK is the knowledge needed to integrate technology into the learning process. The professionalism inherent in teachers requires mastery both theoretically and practically in

organizing between technologies, pedagogy, and learning content. Based on the explanations provided by some of the experts above, it can be concluded that TPACK is knowledge about how current technology may be utilized to enhance the learning process.

Many knowledge systems are the basis of teaching, including how students think and learn and subject knowledge. Shulman (1986) believes that although subject knowledge and general teaching strategies are necessary, they are not enough to acquire the knowledge of excellent teachers.

Picture 1. TPACK Model



(Source: <https://matt-koehler.com/tpack2/using-the-tpack-image/>)

3. Online Learning

The pandemic requires us to be more careful in taking appropriate actions in education. Because of social distancing, it is necessary to maintain a safe distance in order to slow the virus's spread. One of them is shifting the learning system away from face-to-face learning and toward virtual learning. There are numerous options for online learning programs that can be used in the educational field. As according Silalahi et al. (2020), online learning in the application can actually happen with a variety of materials and assignments given to students, teachers, and participants. Involvement is possible through content discussion forums (streams) and interactive learning pathways. Ghufron (2020) defines satisfaction as one of the indications in determining the standard of online learning that is disbursed. Consistent with Sopiadin (2010), student satisfaction could be feedback felt by students on the services provided by the teacher in learning activities thanks to the conformity expected by students with the fact received. Student satisfaction will be defined because of the perception of the worth of experience within the world of education. Besides that, student satisfaction may be a target for the online learning process. We could see if satisfaction in online learning could reflect how students experience and understand education. Besides that, as a facilitator, a teacher should accompany the learning process. Because they cannot learn alone, and the learning process will not be effective. According to Suwartono (2009), teachers should be creative in classroom

scenarios and possibly take time before implementation. A teacher should prepare and design practical learning tasks for their students.

B. Previous Studies

1. Research Entitled “Technological Pedagogical Content Knowledge (TPACK) Analysis in the Implementation of Online Learning Methods in the Covid-19 Era at State High Schools in Tegal City” by Fajero (2021)

Fajero's (2021) research was carried out to determine Technological Pedagogical Content Knowledge (TPACK) in the adoption of online learning methodologies in the Covid-19 curriculum. He investigated the effectiveness of TPACK in online learning as well as the level of student satisfaction. He discovered student satisfaction based on the TPACK component in adopting online learning at public high schools throughout the city of Tegal in this study. The object of this research is 375 students of class XI at state high schools in Tegal. The following are the results obtained through filling out questionnaires given by students.

The results show the percentage of each component that TPACK has in implementation during the online teaching and learning process. The *Technological Knowledge* component reached 68.42%, the *Pedagogical Knowledge* component reached 66.66%, the *Content Knowledge* component reached 66.86%, the *Technological Content Knowledge* component advanced 72.88%, the *Pedagogical Content*

Knowledge component reached 67.69%, and the *Technological Pedagogical Knowledge* reached 71.63%. The percentage of the element of *Technological Content Knowledge* went 72.88% because teachers can already take advantage of various types of applications and carry out learning well and the use of supporting technology in packaging the teaching materials presented.

This study used a quantitative method with a proportionate stratified random sampling technique. Meanwhile, the researcher used a case study with descriptive qualitative data. The sampling size of the previous research is also more significant than the researcher's research.

2. Research Entitled “An Exploratory Study on Teachers’ Understanding of the TPACK Framework in Mathematics Learning in the Midst of a Pandemic at Jambi City High School” by Munajib (2021)

In this research, Munajib (2021) was aimed to conduct an exploratory study on teachers’ understanding of the TPACK framework. He found that the mathematics teacher’s understanding of the TPACK framework used during the pandemic was good. This research produces qualitative data; the type of research is field research. He saw that the researchers studied the background of the current situation and the environmental interactions of a social unit, group, institution, and society that are carried out in real life and reality.

In terms of the various forms of research employed in the prior study, the researcher was using a case study, and the final analysis used field research. In addition, the subject taught by the teacher as a participant in the previous research was math. The sampling size of the previous research is also more significant than the researcher's research.

3. Research Entitled “Perceptions of Islamic Religious Education Teachers About Technological Pedagogical Content Knowledge Between MTS Bilingual Muslimat and MTS Al-Muawwanah” by Mustawa (2021)

Mustawa conducted another related research in 2021. This study investigated teachers' opinions of technology pedagogical subject understanding in the twenty-first century (TPACK). The findings of this study are qualitative. Data were gathered by observation, interviews, and a survey administered via the Google Forms program. In this study, 12 people participated as informants: 6 Islamic religion teachers from MTs Al-Muawwanah Sidoarjo and 6 Islamic religion teachers from MTs Bilingual Muslimat NU Sidoarjo. According to the findings of this study, the teachers at the school have appropriate category perception when using the TPACK (Technological Pedagogical Content Knowledge) model.

The findings of this study show that PAI (Islamic Religious Education) teachers have a positive attitude toward TPACK at the MTs (Madrasah Tsanawiyah) level. Twelve instructors, six from MTs

Bilingual Muslimat NU Sidoarjo and six from MTs Al-Muawwanah, joyfully filled out the survey with perfect percentages.

This research used three types of data collection techniques; which the researcher only used interviews and documentation of lesson plans without observation and survey. In addition, the subject taught was different from the researcher. Nevertheless, the findings are nearly identical to those of the prior study.

C. Basic Assumption

Online learning requires the role of technology. The TPACK (Technological, Pedagogical, and Content Knowledge) component is always used, even if the teacher does not use the TPACK framework written in the lesson plan or practice directly in the learning process. Generally, integrating technology, pedagogy, and content understanding assists teachers in carrying out online learning during a pandemic. According to Mishra (2006), a conceptually based theoretical framework concerning the relationship of technology and teaching has the potential to change teacher education, teacher training, and teacher professional development.