

# Implementation of TPACK-Based Arabic Language Learning in Class VIII at SMPI-PK Muhammadiyah Delanggu

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## Abstract

Learning activities do not solely occur through interactions between teachers and students, but also through the relationship between students and the media used in the learning process. This study aims to analyze the application of the Technological Pedagogical and Content Knowledge (TPACK) framework in Arabic language learning in grade VIII of SMPI-PK Muhammadiyah Delanggu, and to identify the advantages and challenges of its implementation. This research method uses a qualitative-descriptive method. Data were collected through observation, interviews, and documentation techniques. The results show that teachers have systematically integrated TPACK through the planning, implementation, and evaluation stages. Commonly used learning media are LCD/PPT projectors, videos, and audiovisuals, but the use of interactivity-based media (such as Kahoot and Quizizz) and computer laboratory facilities is still not optimal. The advantages found from the implementation of TPACK are increased student understanding of the material and strengthening teachers' technological competencies. However, this study also identified several obstacles, namely the limited ability of teachers to develop media, minimal supporting facilities, and low technological literacy of some students. These findings conclude that strengthening technology-based Arabic language learning requires continuous improvement of digital teacher capacity and optimization of school facilities and infrastructure.

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## Keywords

Arabic Language Learning, TPACK, Learning Technology, Teachers, Learning Media.



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## 1. INTRODUCTION

Learning activities do not solely occur through interactions between teachers and students, but also through the relationship between students and the media used in the learning process. Media is understood as an intermediary or channel that conveys messages from sender to recipient, as explained by Suprihatingrum in (Kuncahyono., 2017). Thus, media can be interpreted as a device or material containing information or learning materials that function to help facilitate the achievement of learning objectives.

Learning media is an important tool that helps students understand concepts during the learning process, particularly media that allows students to interact and operate independently. As a tool, the

effectiveness of media is greatly influenced by the teacher's ability to manage and utilize it, given that teachers play a primary role as transmitters of information or learning materials (Putra, et al., 2019). Learning media also encompasses all forms of tools that can be used to convey messages in the form of knowledge, skills, and attitudes to students so they can understand and internalize the material presented. Furthermore, media plays a crucial role in clarifying information and aiding understanding of the concepts being studied. Therefore, the successful use of media depends heavily on the teacher's ability to operate and facilitate its optimal implementation.

Learning media serves to assist educators in developing the teaching materials they need to deliver learning communication to students. In the final assessment, students can assess the completion and effectiveness of the material delivery (Rosmala, 2018). A learning model is a conceptual framework that typically describes a systematic (ordered) approach to learning activities (experiences) in order to achieve learning objectives (learning skills). There are also other learning models, namely designing educational activities so that the implementation of teaching and learning activities can be carried out effectively, easily understood, interestingly, and in a systematic sequence (Rosiva, 2020).

Initially, the role of learning media was only as a visual aid for teachers in delivering material. However, with the advancement of science and technology in education, the use of learning media has become broader and more interactive through technological support. TPACK-based media has become increasingly relevant in the era of the Industrial Revolution 4.0, which demands that students be sensitive to information transparency, digitalization, computing, and automation. According to (Rejeki, et al., 2020) states that learning media are tools that support teachers in the learning process so that learning objectives can be achieved. Integrating TPACK into learning not only makes it easier for teachers to carry out their duties and functions but also helps students achieve the expected competencies.

Technology integration in learning can be carried out in a planned manner through the selection of relevant devices and teacher mastery of the material, enabling teachers to analyze and adapt the content being taught. Furthermore, teachers need to consider pedagogical strategies that align with the technology being used. Therefore, effective technology integration requires a balanced mastery of subject content, learning methods, and technological devices. These three aspects interact with each other and form the TPACK framework (Subhan, 2020).

Technological developments have had a significant impact on various human activities. In this era, information technology has become a primary tool supporting various sectors of life, driving fundamental changes in operational structures and organizational management, including in education, transportation, health, and research. (Anshori, 2017) In the context of education, the use of technology plays a crucial role in supporting the learning process. The use of technology-based media helps teachers deliver material more effectively while providing a more varied learning experience for students. The presence of digital media can also reduce student boredom with conventional learning methods often used by teachers (Fitriani, 2021).

Pedagogical Technology and Content Knowledge are crucial for a teacher's skills. They influence the learning process. A teacher's delivery of material can be seen from their expertise and ability to create learning tools, such as lesson plans (RPP). This shift in curriculum from the teacher's role as the center of information to students' role as independent and more active learners is crucial. This paper aims to review and remind students of the latest theories related to educator knowledge, namely TPACK, a relevant and systematic educational knowledge framework for application in the 21st century (Sutrisno, 2011).

Based on interviews with Arabic language teachers at SMPI-PK Muhammadiyah Delanggu, it can be said that education is still inefficient if it only uses lectures and discussions. This is because they are accustomed to using lectures when delivering material to students. Similarly, along with current technological advances that can be used to facilitate the learning process and make it more effective and less boring, so that students can understand more easily without relying solely on lectures and

discussions, the application of TPACK in the Arabic language learning process is also being implemented.

The purpose of this research is to determine the implementation of planning, implementation, and evaluation, the media used, and the advantages and disadvantages of implementing TPACK-based media in Arabic language learning. This research is expected to strengthen technology-based Arabic language learning, which requires increasing digital teacher capacity and continuously optimizing school facilities and infrastructure.

## **METHODS**

Research method is a way used in research. "method" is a way of working that is structured and systematic (Zakiah Drajat, et al., 2014). This research uses a qualitative approach. According to (Siyoto, 2020) Qualitative research aims to understand social phenomena from the perspective of participants. This approach examines participants' experiences and perceptions through various interactive strategies, such as direct observation, participant observation, in-depth interviews, document analysis, and other complementary techniques. Qualitative research has two main objectives: to describe and uncover phenomena, and then to explain these findings in more depth. The focus of this research relates to the implementation of TPACK-based Arabic language learning for eighth-grade students. The location of this research is SMPI-PK Muhammadiyah Delanggu. The research subjects include Arabic language teachers.

In collecting data in the field, there are several procedures carried out by researchers in the data collection process, namely: 1) observation techniques; Observation techniques are data collection techniques that require researchers to go into the field to observe things related to space, actors, places, objects, activities, time of events, goals and feelings (Junaidi, 2012). Data collection by observation is the collection of data using the eyes without other standard tools for research purposes (Nazir, 2013). Observation is a systematic technique for observing and recording a phenomenon being investigated. Observations are conducted with the aim of systematically gathering data and information from several phenomena or events for the purpose of a formulated investigation. This observation technique is widely used in both historical and descriptive research. The symptoms of the research can be observed and recorded up close, then collected (Mahmud, 2011). 2) Interview techniques; Interview techniques are a data collection technique by asking respondents several questions or recording their answers. Interviews can be conducted directly or indirectly with the required data sources (Moloeng, 2007). In general, interviews can be grouped into two groups, namely regular interviews, namely interviews that are conducted in detail and structured so that they run well and correctly according to standards and resemble a checklist. While irregular interviews are interview guidelines that only contain an outline of what will be asked and conveyed to respondents. 3) Documentation techniques; Documentation techniques are techniques used to collect data indirectly aimed at the subject, but through research documentation. Documents are notes containing written questions compiled by a person or institution with the aim of studying the needs of an event, and are also useful as data sources, evidence, and source scientific information that is difficult to obtain, and opens up opportunities to expand knowledge about something being researched (Mahmud, 2011).

Data analysis is the process of systematically searching for and compiling data obtained from the results of interviews, field notes and documentation, by collecting data into categories, breaking it down into units, synthesizing, compiling patterns, selecting important data to be used, and drawing conclusions so that it can be easily understood by oneself and others (Sugiono, 2011). The data analysis process uses the Miles and Huberman model, which proposes three steps in data analysis: data reduction, data display, and data verification. The validity of the findings is guaranteed through source triangulation, technical triangulation, and member checking procedures.

## FINDINGS AND DISCUSSION

### Implementation of TPACK-based Arabic language learning

Based on information obtained from several informants that has been analyzed, it can be concluded that learning plans based on Technological Pedagogical and Content Knowledge (TPACK) in Arabic language learning are always prepared and planned by teachers before the learning process begins. This planning is considered very important because with thorough planning, the learning process can run optimally, structured, and according to the predetermined time allocation. Thus, learning becomes more effective and minimizes obstacles.

Planning carried out by teachers in implementing learning generally includes developing a Lesson Implementation Plan (RPP) and preparing media and learning aids such as projectors/LCDs, PowerPoint presentations (PPT), instructional videos, and loudspeakers, if necessary. Teachers also prepare other learning media to support teaching and learning activities in the classroom.

In addition to supporting the smooth technical flow of learning, TPACK-based planning also provides teachers with the opportunity to develop more engaging, interactive, and varied learning materials, thereby increasing student interest and engagement during the learning process. Therefore, it can be concluded that TPACK-based planning in Arabic language learning plays a crucial role in supporting the success and effectiveness of the classroom learning process.

Arabic language learning activities based on Technological Pedagogical and Content Knowledge (TPACK) can run smoothly if teachers and students are highly motivated to utilize technology-based media to support the teaching and learning process. The effectiveness of this learning implementation can be seen in improved student learning outcomes.

During the first daily test, the learning process was still conducted conventionally, using lectures and writing assignments. Teachers did not utilize technological media such as projectors or visual presentations. As a result, students paid less attention to the material presented, as the lecture method was deemed monotonous and unengaging. This resulted in low student comprehension and lower scores on their daily test.

The one-way lecture method tends to limit active interaction between teachers and students, so students do not get enough opportunities for discussion, critical thinking, or collaborative problem-solving. Furthermore, this method makes it difficult for teachers to directly assess students' level of understanding of the material being taught. In response to these conditions, teachers have begun implementing TPACK-based learning by utilizing technology such as projectors/LCDs, instructional videos, and computer laboratories available at schools. With the help of these media, teachers can deliver material in a more visual, interactive, and engaging manner, so that students are more focused and enthusiastic in participating in the lesson.

As a result, on the second daily test after implementing TPACK-based learning, student scores significantly improved. This demonstrates that integrating technology into the teaching and learning process not only enriches the delivery method but also significantly improves student learning outcomes.

The forms of implementation of Arabic language learning based on projector/LCD technology in the classroom include:

1. Utilization of presentation media (PPT) to convey important points of the material.

One form of technology utilization in Arabic language learning based on Technological Pedagogical and Content Knowledge (TPACK) is the use of PowerPoint (PPT) presentation media. This media is used by teachers as a visual aid in delivering material to make it more interesting, structured, and easier for students to understand. PPT allows teachers to present key points of the material concisely and systematically, accompanied by relevant supporting images, graphics, animations, and videos. This greatly helps students focus on the core material and facilitates the process of understanding the concepts being taught. Before learning activities begin, teachers first prepare PPT slides according to the basic competencies and learning indicators that have been planned in the lesson plan. The material presented is also tailored to the needs and characteristics of students, thus facilitating

effective and meaningful learning. The use of PPT media also encourages active student involvement in the learning process. Teachers can insert interactive questions, case studies, or small assignments in the slides to stimulate discussion and increase student participation. Thus, learning is not only one-way, but more dialogic and communicative.

Overall, the use of PowerPoint in Arabic language learning makes a significant contribution to creating a more interesting and modern learning atmosphere, in line with the demands of the 21st century which emphasize the importance of mastering technology in the educational process.

2. Playing educational videos related to the material to strengthen the visualization of the material.

Playing educational videos is a strategy in Technological Pedagogical and Content Knowledge (TPACK)-based learning that is used to reinforce the visualization of material. In the context of Arabic language learning, video is an effective medium for depicting historical events in a more concrete and engaging manner. The use of video in learning provides a more lively learning experience for students. Material previously presented only verbally or textually can be visualized in the form of moving images, narration, illustrations, and animation. This helps students more easily understand sentences, how to read Arabic sentences correctly, and the *istima* (Islamic principles) related to the subject matter.

Teachers typically select or prepare videos relevant to the topic being studied, such as introductory videos or conversations about professions. The videos shown not only complement the material but also serve as discussion and reflection material that can be further developed during the learning process. Besides enhancing understanding, using videos can also increase student interest in learning. Students become more enthusiastic about learning because audiovisual media is considered more engaging and enjoyable than traditional lecture methods.

Thus, playing educational videos in Arabic language learning not only strengthens the delivery of material, but also supports the principles of active and contextual learning that are in accordance with the TPACK approach.

3. Discussion interactions are based on visual displays, where students are invited to analyze images or videos.

These discussions not only increase students' active engagement in learning but also help them relate the material to a more concrete visual context. This method also creates a collaborative and interactive learning environment, where students can exchange opinions, provide arguments, and learn from the perspectives of their classmates. The teacher acts as a facilitator, guiding the discussion to ensure it remains focused and aligned with the learning objectives. Thus, interactive discussions based on visual displays are an effective approach to strengthening students' understanding of Arabic language materials while fostering their critical thinking and communication skills.

4. Laboratory use.

The laboratory is one of the technology-based learning facilities available in schools and is utilized in the implementation of TPACK based learning. The laboratory is divided into two: a language laboratory and a computer laboratory. The language laboratory is typically used to practice students' language skills, such as student conversation and knowledge. If students do not understand or want to look up vocabulary or search for knowledge, they can go directly to the computer laboratory because it is also located side by side between the language and computer laboratories.

Using a computer lab as a learning environment provides a unique learning experience for students, positively impacting their engagement and motivation. Before conducting laboratory instruction, teachers first prepare the materials to be delivered, whether in the form of presentations, instructional videos, or other digital resources relevant to the topic being taught. This planning is crucial to ensure that laboratory activities are effective and aligned with learning objectives.

Learning in a computer lab provides a new atmosphere unlike that in a traditional classroom. This more interactive and visual environment can reduce student boredom and increase their focus on the material being taught. This, in turn, makes students more enthusiastic and easier to understand the material presented by the teacher. The use of a computer lab in Arabic language learning not only enriches the delivery method but also trains students in using technology as a means to understand the

material in depth and context. With this approach, Arabic language learning becomes more dynamic, contextual, and enjoyable for students.

In the implementation of learning evaluation, it is usually carried out at the end of learning by conducting daily assessments of students in order to find out how students' learning progresses with the use of TPACK-based learning media, but apart from that, the learning evaluation obtained by teachers, namely by implementing Arabic language learning based on Technological Pedagogical and Content Knowledge, can also make it easier for teachers to deliver learning materials so that students in the class become more active and can receive lessons effectively.

Likewise, student evaluations of TPACK-based Arabic language learning have shown that students are more enthusiastic about learning and can more easily understand the material presented, which can improve their academic performance. At the end of the lesson, teachers typically provide games/icebreakers for students to re-energize, engage, and create. Furthermore, these games/icebreakers also have their own unique value, such as sharpening students' concentration and sensitivity.

### **Advantages and disadvantages of TPACK**

In the application of TPACK learning there are several advantages that make learning more effective and more enjoyable, namely: Improving student understanding through technological involvement; Improving teacher skills in collaborating technology in learning; Students get new challenges in the learning process; Can help teachers in achieving competency development goals; Complex learning content can be simplified with the help of technology; Learning is not monotonous; Students are more active in learning when using technology; Students are not left behind when struggling in the world of technology.

Meanwhile, when there are advantages, there are certainly disadvantages. The disadvantages of implementing TPACK learning are as follows: If teachers cannot monitor students closely, technology is vulnerable to misuse; For students who are still technologically illiterate, they can be left behind by their friends who are technologically proficient; Requires additional infrastructure, in the form of providing technological devices; Unequal internet access can increase the gap in the quality of education; If teachers are not yet proficient in using technology, then the teacher's time can be taken up just to focus on understanding technology; Teachers are often lazy when it comes to using technology, the impact of which is that learning becomes monotonous.

## **2. CONCLUSION**

Based on the results of data analysis obtained through observation, interviews, and documentation, it can be concluded that 1) Implementation of TPACK in Arabic Language Learning Process; The application of Technological Pedagogical and Content Knowledge (TPACK) in Arabic language learning at SMPI-PK Muhammadiyah Delanggu is implemented through three structured stages, namely planning, implementation, and evaluation. In the implementation stage, teachers have attempted to integrate mastery of Arabic language content (Content Knowledge), relevant teaching strategies (Pedagogical Knowledge), and the use of technology (Technological Knowledge). The dominant digital media used include projectors, presentations (PPT), videos, and audio visuals, which aim to improve students' four Arabic language skills. This integration makes the learning process more organized, communicative, and interactive. 2) Strengths and Weaknesses in TPACK Implementation; The application of TPACK in Arabic language learning has various strengths and challenges (weaknesses): Strengths: TPACK is able to make learning more interesting, interactive, and student-centered, while encouraging teachers to be more creative and responsive to students' learning needs in the 21st century. This approach is also effective in improving student understanding and strengthening teachers' technological competencies. Disadvantages (Challenges): The main challenges include limited technological infrastructure in schools, differences in teacher competencies in developing and mastering interactive digital media, and technological literacy gaps among students, which ultimately require more preparation time for teachers.

Based on the conclusions, it is recommended for further researchers to conduct further research using quantitative methods to statistically measure the correlation between the level of teacher TPACK mastery and student learning achievement in Arabic.

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