



Research Article

## The Role of Technological Pedagogical Content Knowledge (TPACK) on Motivation of Arabic Learning: Case study at Dar Ath-Thalibat Arabic Learning Center

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**Abstract.** In a world where communication is becoming more and more integrated, learning Arabic is crucial for enhancing both language and cultural competency. The Technology-Pedagogical Content Knowledge (TPACK) approach seems to be a useful strategy for increasing student engagement. This study looks into how TPACK competency affects the Arabic language learning process. This study used a descriptive methodology and a qualitative strategy to gather data through literature review techniques and observational investigations of relevant research on the subject at hand. The study's findings indicate a special connection between TPACK competency and student motivation. The material is then presented in video format for speaking using the web-based learning platform. The varied findings analysed in this study indicate that the Teacher TPACK competency can help teachers develop more engaging lessons while also enhancing student motivation and engagement.

**Keywords:** Technological pedagogical content knowledge; competency; motivation; Arabic learning.

## INTRODUCTION

Education is crucial to human existence on both an individual and national level. A nation may become developed and produce outstanding human resources with a strong educational system. Accordingly, the more developed a nation is, the better its educational system is. However, a nation would be more backward the poorer the quality of its educational system (Li *et al.*, 2024). The education system of Indonesia, a developing nation, is still being improved. For Indonesian education professionals, the quality of education in the country is a major concern. One of the several observations regarding Indonesian education quality is the calibre of the teachers.

Teachers are professional educators whose primary responsibility is to educate, guide, lead, train, assess, and evaluate pupils in early childhood education through formal education, basic education, and secondary education, according to Law No. 14 of 2005 Article 1 Paragraph 1. One factor influencing the calibre of learning that occurs and the accomplishment of learning goals is the calibre of teachers. A nation's educational quality will be influenced by the calibre of its instructors. Human resources and teacher performance are closely related, and teacher quality has a significant impact on students' development (Westley, 2000). The expertise, professionalism, and well-being of teachers are indicators of their quality. The capacity to grasp instructional strategies, media, and resources as well as communicate with students, parents, and the community is known as teacher competence. Numerous tools, including the Teacher Competency Examination (UKG), National Examination (UN), and Program for International Student Assessment (PISA), can be used to determine teacher competency. Nonetheless, the outcomes of these tests demonstrate that Indonesian teachers continue to lack proficiency. For instance, according to UKG statistics from 2021 to 2015, over 81% of Indonesian teachers failed to meet the required minimum level. The average teacher

score in Indonesia, according to the results of the 2022 National Examination, is 54.6, which is still below than the required minimum of 55. With an average score of 371 out of 79 participating nations, Indonesia is ranked 72<sup>nd</sup> in the 2022 PISA results, much behind the OECD average of 487 (*Education GPS - Indonesia - Student performance (PISA 2022)*). According to statistics from UNESCO's 2016 Global Education Monitoring (GEM) Report, Indonesia's educational system is rated 10th out of 14 developing nations, while its teachers are ranked 14th out of 14 developing nations worldwide (Utami, 2019). This impacts the quality of education in Indonesia and has an effect on student success. At the moment, Indonesian education is still regarded as having poor quality (Tarigan, Saptono and Muchtar, 2023).

Lack of professional development and teacher training, which is still uncommon, unequal, and out of step with teacher demands, is one of the causes of Indonesian teachers' low competency (Risna, Sudarsyah and Herawan, 2024). Teaching is a job that demands specialised abilities. To promote effective and efficient learning, instructors should consistently update and enhance their expertise in response to advancements in science and technology as a means of conveying content. According to Minister of Education Regulation No. 16 of 2007, being able to use information technology to conduct development education is one of the required teaching competences. Teachers are essential to continuous learning activities in the classroom, and they need to be able to create a learning environment that fits the needs of students in the twenty-first century (Alhothali, 2021). This century's students are extremely sensitive to change, particularly when it comes to technological advancements. Teachers must be prepared to adapt and enhance learning activities by incorporating technology into them in order to balance these qualities (Ajizah and Huda, 2020). The capacity to incorporate technology into instructional materials is an intriguing aspect and a type of innovation that educators need to cultivate.

Teachers need to be knowledgeable in order to integrate technology into learning activities in the best possible way. This information is known as technological pedagogical content knowledge, or TPACK. A theoretical framework known as TPACK helps teachers understand how to integrate their knowledge of pedagogy, technology, and learning materials to generate suitable and successful learning processes. In actuality, though, many educators are still struggling to incorporate technology into the classroom (Ajizah and Huda, 2020). In order for students to get the learning outcomes they desire, teachers must use their creativity to offer content that can give them power during the learning process. Low student learning motivation can lead to poor student learning outcomes when teachers lack TPACK skills (Sojanah *et al.*, 2021). Learning motivation works as an endeavour to accomplish a goal. Being highly motivated during the learning process will also provide positive outcomes. To put it another way, someone who studies will do well if they put up a lot of work and are highly motivated. This implies that students' level of motivation will have a significant impact on how well they learn (Rahman, 2022). It is envisaged that this would help create future human resources of high calibre.

According to Alfred Bork, the growing availability of technology will bring about an educational revolution in schools through the use of communication,

technology, and information (Alfred Bork and Stephen Franklin, 1979; Rimkus *et al.*, 2022). early all people in economically developed nations today own one or more computers, on average, twenty-five years later. But there are no clear indications that the revolution Bork envisioned would materialise very soon. Upon reflection, it is possible that the majority of us in the 1980s were overly enthusiastic about the potential of information, communications, and technology to enhance and progress education. In addition to making teaching more convenient and encouraging students to participate in frequently pointless activities, many individuals these days are attempting to understand the additional value that technology, information, and communication may bring to the educational endeavour. Some argue for sticking to a strictly conventional teaching approach that depends on instructors, uses printed textbooks, and uses blackboards, while others cast doubt on the use of technology in the classroom (Spector *et al.*, 2014).

A growing number of educators and specialists are realising that while technology cannot do this task automatically in the classroom, education as a whole cannot function without it (Holmes and Tuomi, 2022). Many come to see that it is not about technology per se, but rather about how technology is used to enhance student learning. What students see as being overshadowed by the novelty of new gadgets is the instructional potential or learning chances that are most important when new technology is introduced. It is the duty of educators to identify and communicate these learning opportunities and the possibility for change in new educational practices (Keiler, 2018). In areas that research bodies are unable to thoroughly and thoroughly examine, instructors play a part.

Matthew J. Koehler and associates developed the framework known as TPACK (Technological Pedagogical Content Knowledge). Shulman's (1986) model of content knowledge and pedagogy, or PCK (Pedagogical Content Knowledge), is the foundation of this paradigm. In this instance, Mishra and Koehler transformed the PCK idea into TPACK by using technology (Koehler *et al.*, 2014). Therefore, TPACK is a competency that combines content knowledge, pedagogical knowledge, and technical knowledge in a learning environment. While pedagogical knowledge focusses on how teachers teach learning material using appropriate and innovative models and methods to make learning more effective, technological knowledge requires educators to be proficient in using technology as a learning tool, such as the internet, interactive multimedia, LMS, and distance learning support software (Kerimbayev *et al.*, 2023). The capacity of a teacher to professionally grasp the subject matter of the lessons they are teaching is known as content knowledge. Teachers must become proficient in TPACK in order to raise their level of instruction. This is consistent with Karaman's assertion that "Pedagogical content knowledge (PCK) enters the scene at as one of the most critical elements of improving teacher quality" (Karaman, 2012). Understanding the subject matter of the material is not enough for teachers to facilitate learning; they also need to know how to teach. Accordingly, Loughran *et al.* (Loughran, Berry and Mulhall, 2006) reported that one of the elements that enables the enhancement of teacher effectiveness is the development

of TPACK skills. This is because this skill is seen to be a model for education that is focused on the evolving needs of the twenty-first century.

This research will explain and examine the relationship between interest in learning Arabic and the TPACK (Technological Pedagogical Content Knowledge) competency. The best implementation of TPACK skills will boost students' enthusiasm to study, which will impact their learning results. Researchers' pre-research revealed that students were tired with studying Arabic and want variation in order to become more motivated to learn the language. This phenomenon then attracted researchers to explore it further.

## **METHODOLOGY**

### **Research approach**

The research employs a phenomenological approach, which is a method that investigates a phenomena, event, or facts that come to light. This kind of review can be used to examine a person, a social gathering, a local culture, or a natural occurrence. Finding out how this study translates social acts collected in the field relating to the subject and object of research into something meaningful is the goal of using a phenomenological technique.

The research site is a critical factor in choosing a study focus. The research context and the subject have been unified since the beginning of the study. The community under study's social and physical conditions are portrayed in this research environment. The research site for qualitative research will be specified by the research setting, which is directly tied to the intended study focus. This study's research environment is the students at the Dar Ath-Thalibat Arabic Learning Centre. The research subjects and informants were Arabic language teachers and students enrolled in the basic course at the Dar Ath-Thalibat Arabic Learning Centre.

### **Data Acquisition**

In this study, methods such as observation, documentation, and interviews are used to gather data. An explanation of the techniques employed in this study is provided below:

#### **1. Interview**

Conducting interviews involves speaking with a number of individuals in order to gather information on the topic of the study. Researchers will conduct interviews with:

- a. 6 teachers teaching Arabic in basic class of Dar Ath-Thalibat Arabic Learning Center,
- b. 57 students of basic class of Dar Ath-Thalibat Arabic Learning Center.

The purpose of this was to provide a basic description of the TPACK competency of Arabic teachers and its impact on the motivation of female students to learn at the Dar Ath-Thalibat Arabic Learning Centre.

#### **2. Observation**

It is essential to examine the research object and the phenomena that take place there, including human behaviour, the object's natural environment, and the

inanimate objects that surround it, when gathering data. The observations in this study are participant observations, meaning that the researcher actively observes the subject being investigated during the course of the study, but the researcher attempts to maintain objectivity throughout the investigation. Direct observations involve watching and documenting what occurs at the place.

### 3. Documentation

Finding information about variables or objects is the process of documentation. Books, notes, transcripts, magazines, inscriptions, minutes, newspapers, agendas, and meetings pertaining to Arabic teachers' TPACK competency and its impact on students' enthusiasm to study can all be considered forms of documentation.

## Data Analysis

The qualitative descriptive approach used in this study necessitates a strategy for analysing the data, which includes data reduction, categorisation, synthesis, and development of research hypotheses, or what is meant by drawing conclusions from the study.

## Validation

Four criteria are used to examine the credibility of qualitative data in a study: (1) Credibility (degree of trust), (2) Transferability (transferability), (3) Dependability (reliability), and (4) Confirmability (certainty). Credibility and confirmability are used by the validity test to evaluate the data in this study. A degree of trust must be established by research that use data gathering techniques such as documentation and interviews, followed by a credibility test to verify the accuracy of the data (Norman A. Stahl and James R. King, 2020). Triangulation, a method for ensuring regularity in observations and member checks, is necessary to test the level of confidence.

Testing the correctness of data using triangulation techniques includes three types of testing according to Sugiono (Sugiyono, 2014), including:

### 1. Source triangulation

The purpose of this triangulation was to verify information gathered from many sources. Teachers and students of Arabic at the Dar Ath-Thalibat Arabic Learning Centre provided the data. These two sources were used to describe it before classifying it into similar and dissimilar viewpoints. After analysing the collected data to draw a conclusion, the agreement between the three sources is verified.

### 2. Triangulation technique

Technical triangulation is the process of verifying information from the same source using several methods. This technique's goal is to collect data through interviews, which are subsequently verified by field observations and documentation. To guarantee accuracy, data that differs from one another is addressed with the relevant data source.

### 3. Time triangulation

Interviews and observations at various times and settings are necessary for verification since time is one factor that affects the reliability of data.

## **DISCUSSION AND ANALYSIS**

### **Effect of competence of TPACK on student motivation**

Technological Pedagogical Content Knowledge is the knowledge that has been synthesised from technical knowledge, content knowledge, pedagogical knowledge, pedagogical content knowledge, technological content knowledge, and technological pedagogical knowledge, as previously described. The main focus of this field of study is on how technology may be used to satisfy the unique pedagogical requirements of teaching the right material in a particular setting. Each element in the knowledge area is discussed in connection to teaching, along with its importance and need. However, these elements alone are not sufficient for successful education. When a teacher employs TPACK, they integrate their knowledge of technology, pedagogy, and content to create learning experiences for their students.

In terms of student motivation, the outcomes of the survey they answered show how successful TPACK is. Incorporating Arabic into class planning, together with relevant new technology and learning methodologies, was reported by almost 70% of teachers. Furthermore, 45% of educators stated that they use technology to help with assessment when teaching Arabic. Furthermore, even though 65% of teachers had effectively used technology to present examples in the Arabic textbook, only 25% of them were able to match the needs of their students on online learning. A mere 60% of those surveyed claimed to be adept at effectively and appropriately utilising technology to help pupils better comprehend the material. Following that, 65% of instructors said they could work together with other educators on subject-related content, technology, and learning strategies.

### **Implementation of TPACK in learning Arabic language skills**

Teaching Arabic language proficiency benefits greatly from Technological Pedagogical Content Knowledge (TPACK), since technology may enhance instruction and make it more engaging and dynamic. When learning Arabic, for instance, technology may offer both direct and indirect listening and conversation opportunities with native speakers, giving students a more contextualised educational experience. The way that each teacher applies TPACK to teaching Arabic language skills varies depending on their proficiency with the seven TPACK components. The better an Arabic teachers can learn and develop their knowledge, abilities, and understanding of both Arabic and TPACK, the better their instruction will be. There are a number of ways to increase teachers' Technological Pedagogical Content Knowledge (TPACK), particularly for Arabic language instructors. These include both non-education and training methods and educational and training methods. Within the Dar Ath-Thalibat Arabic Learning Centre, educational and training activities as well as non-educational activities can be conducted internally. Increasing Technological Pedagogical Content Knowledge must begin with each Arabic language instructor in addition to the aforementioned tasks. In order to

develop their TPACK, Arabic instructors need to be driven, creative, innovative, and resilient. This is because technology advancements make it simpler for them to access the diverse knowledge they require from both domestic and foreign sources.

## CONCLUSION

Teachers may create effective teaching techniques by understanding the intricate interaction between technology, pedagogy, and content, which is known as TPACK. Students who are learning Arabic frequently encounter a variety of challenges when it comes to comprehending the subject matter. As a result, TPACK plays a critical role in helping students comprehend the content being taught and in assisting them in meeting the desired learning objectives. At the Dar Ath-Thalibat Arabic Learning Centre, TPACK is implemented through the use of media in the classroom.

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