

THE APPLICATION OF TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE IN ARABIC LANGUAGE LEARNING AMONG UNIVERSITIES

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ABSTRACT

This study aims to explore the implementation and effectiveness of Technological Pedagogical Content Knowledge (TPACK) in the context of learning Arabic in the universities, focusing on non-Arabic speaking learners. This study explores the application of the 4 elements discussed under TPACK, namely teachers' knowledge about content knowledge, pedagogical knowledge, and technological knowledge. It is a qualitative study using descriptive approach. Data were collected through literature review techniques and observational studies of relevant studies related to the topics discussed. In this study, the results shows that the knowledge of technology pedagogy content helps improve student learning outcomes (TPACK). This indirectly indicates that the students perform better with technology aids. Hence, it is the right approach to utilizing technology for teachers and student in current digital era. The reason is pedagogical content about integrating technology helps make it easier for teachers to deliver the content and the tools are more interactive as compared to the traditional method, which makes it easier for students to understand the language. The contribution of this research is providing a new method for learning in the academic world, specifically in Arabic Language Education for the non-Arab speakers, to achieve appropriate and correct teaching and learning activities.

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INTRODUCTION

Arabic is an international language that has high historical, religious and cultural value. There are 4 Arabic language skills, namely listening, speaking, reading and writing skills. These four skills are very important in learning Arabic. Arabic is one of international languages besides English commonly used in legal sources such as Qur'an, Hadith, Ijma, and Qiyas, or other scientific sources. Understanding Arabic is one of the requirements to study various legal sources. In Indonesia, Arabic is a compulsory subject in Islamic Schools (madrasah), for

instance, Islamic Elementary School (Madrasah Ibtidaiyah, MI), Islamic Junior High School (Madrasah Tsanawiyah, MTs), or Islamic High School (Madrasah Aliyah, MA) (Retnawati et al., 2020). However, prior studies found that the students are facing difficulties in learning the Arabic language.

In the current digital era, the ease of access to technology, information and communication plays a good role in solving the issue of language barrier. As an example, a lot of sophisticated communication devices have someone to interact easily with one another anywhere, anytime, and even at a distance. The use of apps, online learning platforms, and other digital resources opens up greater accessibility for learners around the world.

The traditional method is no longer interest the students to participate in the learning process. Therefore, the teachers are also required to be able to optimize the technology usage in their teaching and learning activities and understand the pedagogical of students. One of the approaches that has received attention in this context is the TPACK (Technological Pedagogical Content Knowledge) approach, which combines technological expertise, pedagogy, and content knowledge to increase the effectiveness of learning (Saputra et. al., 2023). The concept of Technological Pedagogical Content Knowledge (TPACK) was first introduced by Koehler & Mishra (2006). Koehler & Mishra developed the TPACK framework based on the idea of Pedagogical Content Knowledge (PCK) which had been developed first by Shulman (1986). The addition of technology to the context of PCK was introduced as a way to support and improve the strategies used in the classroom., which is in line with the current era, digitalisation (Hasibuan et. al., 2023).

The use of TPACK also provides an opportunity for Arabic teachers to tailor their learning approach to the characteristics of students and diverse learning needs. By combining knowledge of technology, pedagogy, and content, teachers can create an inclusive and responsive learning environment. They can accommodate different learning styles and provide resources that suit the individual needs of students. Thus, the application of TPACK in Arabic learning not only results in a learning experience (Hasibuan et. al., 2023). There are seven elements under TPACK, namely Technological Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK), Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK) and Pedagogical Content Knowledge (PCK).

Technological Knowledge (TK) or abbreviated as kindergarten is the teacher's knowledge of what and how technology, software, or applications can be used for learning. Kindergarten also includes the ability to adapt and learn new technologies. The ability to continue learning and find out about the latest technology that can be used in learning is very important considering that technology continues to develop very rapidly. For example, the development of software in learning ranging from power point, lectors, adobe captivated, adobe flash to now Augmented Reality technology has emerged. These softwares can be used for the learning process.

Pedagogical knowledge or what is called PK is the teacher's knowledge about student characteristics, the development of lesson plans and evaluation of learning outcomes, and what are the learning methods/models/strategies that can be used in learning. Pedagogical knowledge also includes the ability to adapt and learn the latest learning methods or even be able to create learning strategies according to the needs of the class.

Content knowledge (CK) or understanding of material is the teacher's mastery of the subject matter or substance of the material in broad and deep depth that will be taught to students. (Padmavathi, 2017) This content knowledge is certainly different at each level of education. Fifth, Technological Content Knowledge (TCK) is the ability of teachers to convey material using technology. TCK is how teachers can describe content (material) in a different way from technology that was previously impossible. TCK is the ability of teachers to be

accurate in determining and using technology to make new representations in the process of transferring learning materials that have special characteristics so that they are able to change the mindset of students.

Pedagogical content knowledge (PCK) is the ability to integrate the understanding of content or material with the teaching process. (Nuangchalerm, 2020) In delivering material, teachers do not just give material but use certain strategies in delivering material. So that PCK is also the accuracy of teachers in choosing the right approach or strategy in certain materials and in accordance with the character of the students, because not all strategies are suitable for use in all materials. Technological Pedagogical Knowledge (TPK). TPK identifies the interrelationship between technology and pedagogy. TPK is also the ability of teachers to choose and utilize the right technology to support the application of various learning tools used.

METHODOLOGY

This study uses qualitative research that aims to describe how the implementation and effectiveness of TPACK in Arabic language learning, based on the prior studies conducted on TPACK Arabic learning. Qualitative research is an approach that produces descriptive data in the form of written words or verbal power from the object of research (Zurqoni et al., 2020) The research method used in this study is a content analysis of the prior literatures. The literature used is journals/articles relevant to TPACK. Literature review is carried out by selecting, identifying, and evaluating research to answer the research questions that have been formulated (Khoiriyah, 2023).

RESULTS AND DISCUSSION

Technological Pedagogical Content Knowledge (TPACK)

Technological Pedagogical Content Knowledge (TPACK) is a framework that explains how teachers understand technology and how to produce effective teaching with technology. TPACK, as shown in Figure 1, has three main components, namely teachers' knowledge about content knowledge, pedagogical knowledge, and technological knowledge (Mas et al., 2024).

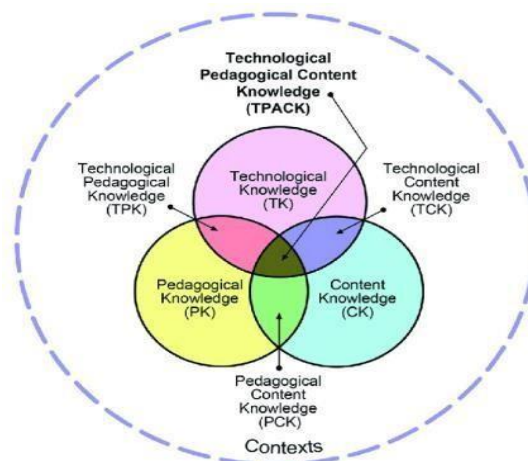


Figure 1: Framework Technological Pedagogical Content Knowledge (TPACK) Source: (Mishra dan Koehler, 2008)

TPACK is a framework resulting from the integration of technology into learning that

involves aspects of knowledge about technology, processes, materials, and strategies in learning. TPACK is a framework that emerges as a new paradigm, because it is able to collaborate on aspects of knowledge, technology, content, and how to teach or provide learning materials using technology, pedagogical, and good content in supporting technological knowledge (Renni Hasibuan & Ira Safira Haerullah, 2023). TPACK acts as a theoretical framework that aims to increase students' understanding of the material presented, by integrating abilities and applications from various fields. TPACK summarizes the various skill needs needed by educators today because the integration of technology, pedagogy, and knowledge about content is the main element in TPACK for educators who are able to master TPACK in learning, because educators who implement TPACK will produce different opinion competencies from educators who have not been able to master TPACK (Ismail et al., 2022;Yurinda & Widyasari , 2022; Rizqiyah, 2021; Satriawati et al., 2022).

The concept of TPACK was first introduced by Koehler & Mishra (2006). Koehler & Mishra developed the TPACK framework based on the idea of PCK (Pedagogical Content Knowledge) which had been developed first by Shulman (1986). The addition of technology to the context of PCK was introduced as a way to support and improve the strategies used in the classroom (Yolanda et al., 2021).

Mishra and Koehler (2006) with the title Technological Pedagogical Content Knowledge: A framework for Teacher Knowledge, since its introduction in 2006 to 2019 is still the main theoretical framework for researchers and education practitioners in an effort to develop several learning models. The term TPACK (Technological, Pedagogical, Content Knowledge) is a framework in designing a new learning model by combining three main aspects, namely technology, pedagogy and content/knowledge material (Saputra et. al., 2023).

Table 1. Relevant Research Results

No	Title	Research Objectives	Type Of Research	Research Results
1.	The use of technology in learning Arabic in Indonesia	To investigate the extent to which technology is acting as a catalyst that is changing the landscape of Arabic education in Indonesia.	Qualitative	The findings of this study underscore the fundamental role of technology as a catalyst in the world of Arabic language education in Indonesia. By continuing to develop and integrate technology wisely, the education system can continue to enrich the student learning experience, improve the quality of learning, and respond to the demands of the ever-evolving times.
2.	Technology-Based Learning Media Training on Arabic Language Learning at the Abu Bakar Ash Shiddiq Qur'an School Bandar Lampung	Providing knowledge and skills for elementary school educators in the use and utilization of technology-based learning media.	Observation	This activity was carried out in the form of providing material on the types of learning media and the continuation of material in the form of the practice of making technology-based learning media and used in the Arabic language learning process at the Abu Bakar Ash Shiddiq Qur'an School Bandar Lampung.
3.	Suitability of Materials to Core Competencies and Basic Competencies in	To express the material's adequacy to the core competencies and basic competencies in Arabic textbooks.	Library Research	Examine the implementation of the four Core Competencies and Basic Competencies in the Arabic textbook of the scientific approach curriculum 2013 grade VII published by the Ministry of Religion of the Republic of Indonesia

	Arabic Language Textbooks			in 2014.
4.	Design of Arabic Vocabulary Learning Media Based on Android Games	Facilitate and motivate students in learning Arabic	Research and Development (R&D)	In this study, learning media was made using the Analyse Design Development Implementate Evaluate (ADDIE) model.
5.	Development and Applicability of E- I'jāz Application in Learning Arabic Vocabulary	To make it easier for students to learn Arabic vocabulary by using the El Ijaz application	Quantitative	E-I'jāz is able to meet the needs of the current curriculum and is in line with the tendencies of the current generation. This indirectly requires language teachers and teachers to expand their knowledge related to multimedia technology, develop teaching aids that are suitable for current needs and use these skills in their teaching and learning.
6.	Ability of Pedagogical Content Knowledge Alumni Arabic Language Education UIN Ar Rainy Banda Aceh	To find out the pedagogical content knowledge of alumni of the Arabic Language Education Study Program at the Faculty of Tarbiyah and Teacher Training UIN Ar-Raniry Banda Aceh.	Qualitative	The implementation of Technological Pedagogical and Content Knowledge (TPACK) in education at the elementary school level has a significant impact on the learning process and outcomes. The use of TPACK in learning is able to increase teachers' creativity, enrich students' learning experience, and improve students' academic and non-academic outcomes.
7.	Preparation of Teaching Materials in the Context of Improving Arabic Speaking Skills in Students	To provide information to readers (especially educators) about the importance and how to prepare teaching materials that are in accordance with the learning outcomes of Arabic speaking skills.	Qualitative	In addition, the use of teaching materials can make the learning process more effective and efficient. The remaining time in learning can be optimized properly by conducting practice activities, discussions, questions and answers, and so on. The use of teaching materials is also able to overcome problems or problems in learning Arabic, especially speaking skills.
8.	The Use of Game Methods in Learning Arabic to Increase Motivation and Participation of Grade XI MQNH Girls Students	To explore the impact of the use of a game-based approach on students' motivation and participation in the Arabic learning process.	Qualitative	This study illustrates that the use of the game method in learning Arabic for grade XI students at Mqnh Ulya Putri has great potential to increase effectiveness and interaction in the teaching- learning process. From data analysis and observation of student participation and response, it can be seen that the game method is effective in increasing learning motivation, reducing tension, and creating a more inclusive learning Environment.
9.	Implementation of TPACK	compile a synthesis of findings to create a	Qualitative	The use of TPACK in learning is able to increase teachers' creativity, enrich

(Technological Pedagogical Content Knowledge) to Increase Creativity of Elementary School Teachers	theoretical framework that can guide teachers in the application of TPACK. The goal is to provide clear guidance for teachers and prospective teachers to master TPACK technology in the context of learning in elementary schools.		students' learning experience, and improve students' academic and non-academic outcomes. However, there are obstacles in implementation which include limited human resources, facilities, and technological facilities.
Analysis of Prospective Arabic Teachers' Technological Pedagogical Content Knowledge (TPACK)	To get a TPACK profile of Prospective Arabic Teachers who are pursuing	Qualitative	the TPACK level of prospective Arabic teachers who are currently studying at Arabic Education department of IAIN Pekalongan can be categorized as good. However, they still need to improve their CK, PCK, and TPACK so that they can keep up with scientific developments and the latest issues related to Arabic teaching and learning, be able to integrate Arabic material with those from other related disciplines, help colleagues in integrating technology in learning process, and be able to use technology to assess student learning outcomes.

The Influence of TPACK in Arabic Language Learning among Universities

The emergence of various digital technologies is the impact of technological developments that are becoming more and more sophisticated day by day, and there is no end to the development of interesting media in learning, The world of adult education has entered the era of the media world, where learning activities demand a reduction in lecture methods and are replaced by the use of a lot of media. Especially in current learning activities that emphasize process skills and active learning, the role of learning media is increasingly important (Saputra et al., 2023).

Knowledge of technology pedagogy content in improving student learning outcomes (TPACK) is the right approach to utilizing technology for teachers and student educators. This has been proven in previous studies that use the TPACK learning model to improve student learning outcomes. The reason is pedagogical content about integrating technology to make it easier for teachers by using the TPACK learning model (Yolanda et al., 2021).

In the preparation of learning tools, something that plays a big role, namely TPACK, learning media is one form of the use of technology. Technology media plays a role in maximizing learning used by teachers, such as displaying images, videos, animations and the presentation of learning materials through PowerPoint which is presented through a projector screen connected to a laptop using WhatsApp as a learning technology tool for online learning in the midst of the Covid-19 pandemic last year (Amrina et al., 2022).

CONCLUSION

The usage of technology in the Arabic teaching and learning has encourage active participations among the students. The communication has become more interactive and interesting. Hence, it attracts interest of the students to score in the subject. However, there is still limited studies

looking into the TPACK learning model in their teaching and learning. This call for research to investigate on its effectiveness and challenges that hinders the teachers and students to implement the TPACK learning model in their institutions.

This finding of this study benefits the teachers and students in adapting the best teaching and learning model in their institutions. Besides that, it also provides an insight to the ministry of education to consider this changes in their curriculum, so that the students are moving forward in line with the technological advancement.

This research contributes by providing a new method for learning in the academic world, particularly in Arabic Language Education, to achieve appropriate and correct teaching and learning activities.

This research is not yet perfect and requires further investigation, especially in the pedagogy section. Therefore, a recommendation for future researchers is to delve deeper into student involvement and motivation. Explore how different elements of TPACK affect student engagement and motivation. Identifying which technological and pedagogical strategies are most effective in maintaining student interest and participation can help refine teaching approaches.

REFERENCES

- Amrina, Z., Anwar, V. N., Alvino, J., & Sari, S. G. (2022). Analisis Technological Pedagogical Content Knowledge Terhadap Kemampuan Menyusun Perangkat Pembelajaran Matematika Daring Calon Guru SD. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 6(1), 1069–1079. <https://doi.org/10.31004/cendekia.v6i1.1313>
- Ismail, M., Herianto, E., Sumardi, L., & Basariah. (2022). Sosialisasi penerapan pembelajaran berbasis TPACK pada guru PPKN madrasah tsanawiyah se kota Mataram. *Jurnal Pengabdian Magister Pendidikan IPA*, 5(4), 141–145. <https://doi.org/10.29303/jpmipi.v5i4.2338>
- Mas, L., Hasan, U., Tareh, M., & Muhammad, A. (2024). Menyelami integrasi kurikulum untuk penerapan tpack dalam pembelajaran Bahasa Arab. *Journal of Practice Learning and Educational Development*, 4(3), 143-150 <https://doi.org/10.58737/jpled.v4i3.291>
- Renni Hasibuan, Ira Safira Haerullah, U. M. (2023). TPACK dalam pembelajaran Bahasa Arab (studi implementasi dan efektivitas). *Islamic Manuscript of Linguistics and Humanity (IMLAH)*, 5(1), 23–34. <https://ejournal.uinib.ac.id/jurnal/index.php/imlah>
- Rizqiyah, N. (2021). Implementasi Technological Pedagogi-Cal Content Knowledge Dalam Pem. 10(2), 159–171.
- Saputra, P., Ritonga, A. W., Bahrudin, U., Islam, U., Maulana, N., Ibrahim, M., Timur, J., Barat, J., Islam, U., Maulana, N., Ibrahim, M., Timur, J., & Arab, B. (2023). Pendekatan technological pedagogical content knowledge (TPACK) dalam pembelajaran bahasa arab di man 2 payakumbuh. *Shibghoh: Prosiding Ilmu Kependidikan UNIDA Gontor*,
- Satriawati, G., Mas'ud, A., Dwirahayu, G., Dahlan, J. A., & Cahya, E. (2022). Analisis kemampuan technological pedagogical content knowledge (tpack) mahasiswa program studi pendidikan matematika pada mata kuliah microteaching di masa pandemi covid 19. *FIBONACCI: Jurnal Pendidikan Matematika Dan Matematika*, 8(1), 73-84. <https://doi.org/10.24853/fbc.8.1.73-84>
- Yolanda, K. cahya, Oktaviany, V., Dwiprabowo, R., Guru Sekolah Dasar, P., & Kusuma Negara, S. (2021). Peningkatan hasil belajar tematik dengan penerapan model pembelajaran technological-pedagogical-content-knowledge (TPACK). *Prosiding Seminar Nasional Pendidikan STKIP Kusuma Negara III*
- Yurinda, B., & Widayari, N. (2022). Analisis technological pedagogical content knowledge

(TPACK) guru profesional dalam pembelajaran matematika di sekolah dasar. *FIBONACCI: Jurnal Pendidikan Matematika Dan Matematika*, 8(1), 47. <https://doi.org/10.24853/fbc.8.1.47-60>.

Retnawati, H., Rahmatullah, S., Djidu, H., & Apino, E. (2020). Has Arabic Language Learning Been Successfully Implemented?. *International Journal of Instruction*, 13(4), 715-730.