

DESIGN OF ELEMENTARY SCHOOL PKN LEARNING WITH THE TPACK APPROACH BASED ON LOCAL RELIGIOUS CONTENT (MLR) IN STRENGTHENING STUDENT CHARACTER IN MECCA INDONESIAN SCHOOL

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ABSTRACT

This study aims to develop a learning design for Civic Education (PKn) at the elementary school level using the Technological Pedagogical and Content Knowledge (TPACK) approach integrated with Religious Local Content (MLR) to strengthen students' character at Sekolah Indonesia Mekkah. The research is grounded in the need for a learning model that effectively integrates technology, pedagogy, and content while instilling religious and multicultural values relevant to Indonesian diaspora students living abroad. The study employed the ADDIE development model (Analysis, Design, Development, Implementation, Evaluation) involving 35 sixth-grade students and one Civic Education teacher as participants. Data were collected through observation, interviews, and documentation, and analyzed using both qualitative and quantitative methods. The results showed that the developed model was valid with a score of 0.86 (classified as very strong), practical for classroom use, and effective in improving students' learning outcomes as well as their religious and tolerance-based character. The implementation of TPACK integrated with MLR made Civic Education learning more interactive, contextual, and reflective of spiritual and social values. This study implies the importance of enhancing teachers' competencies in integrating technology and religious local content as a means of character education within multicultural learning environments.

Keywords: Religious Character, Religious Local Content, TPACK

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INTRODUCTION

In today's era of technological advancement, the rapid development of science and technology in the 21st century has not only brought progress but also significant challenges, such as the phenomenon of moral degradation experienced by early childhood (Rofiah & Munadi, 2024). In response to this problem, the Indonesian government has issued a character education policy as a fundamental effort to shape students' morals (Ministry of National Education, 2011). In this context, religious-based character education functions as a key character-building element, where the instillation of deep moral values is equivalent to the concept of morals in Islamic teachings (Al-Ghazali, 1998; ResearchGate, 2024). The legal basis for the implementation of this character education is in line with Law Number 20 of 2003 concerning the National Education System (Law Number 20 of 2003).

On the other hand, learning in the 21st century requires educators, as a crucial element, to master various skills and knowledge, particularly related to technology integration, in order to implement an effective learning process (Benny, 2017). Civics Education (PKn) plays a central and strategic role. The subject of PKn in elementary schools aims to prepare students to master the knowledge, skills, attitudes, and values necessary to solve social problems and become citizens with character in a changing world (Amini et al., 2023).

Furthermore, the presence of the Indonesian School in Makkah, Saudi Arabia, which has a different social system, religious values, and cultural norms from Indonesia, requires teachers and students to adapt to two cultural contexts simultaneously: Indonesian culture and local Saudi Arabian culture. This condition demands adaptive learning based on multicultural values so that students can maintain their national identity while adapting to the global environment. Therefore, this research is significant in examining how the TPACK approach can support teachers in integrating technology, pedagogy, and Civics content with multicultural values in a unique environment such as the Indonesian School in Makkah.

To meet the demands of the 21st century, teachers are required to possess basic competencies known as TPACK (Technological Pedagogical and Content Knowledge) (Arnesti & Hamid, 2015). The TPACK framework, which is a development of Shulman's (1986) PCK model, enables teachers to effectively integrate content knowledge (Content Knowledge-CK), pedagogical knowledge (Pedagogical Knowledge-PK), and technological knowledge (Technology Knowledge-TK) in the learning process (Mulyasa, 2014; Shulman, 1986). Empirical studies have shown that the TPACK model is highly effective, especially in Civics, and is able to improve teaching practices and student learning outcomes (Dahnial et al., 2022; Schmidt et al., 2009).

However, the implementation of TPACK faces substantial challenges in achieving the affective goal of Civics Education (PKN), namely character building. If the technology used is limited to presentation media such as interactive PowerPoint (Arnesti & Hamid, 2015), it tends to only address the cognitive aspects of learning. However, character building requires a more in-depth pedagogy, such as through habituation methods, role models, and heartfelt guidance (Rofiah, 2024). Therefore, technology selection is needed that is directed to support the Technological Pedagogical Knowledge (TPK) strategy that enables digital simulations or narratives, ensures technology truly encourages the internalization of values, and functions as an effective control and evaluation tool (Dialog, 2020).

The researcher's motivation for studying this topic stems from both concerns and existing opportunities. Discussions with teachers at the Makkah Indonesian School and the results of a literature review indicate that integrating TPACK with multicultural education can be an innovative solution to address learning challenges. (Yanuartuti, 2025) The researcher believes that this research will make a significant contribution to developing a more contextual, inclusive, and technology-based Civics learning model.

The expected outcome of this research is the development of a learning model product for Elementary School Civics (PKN) using a local content-based TPACK approach that emphasizes values. Practically, this research is expected to provide guidance for teachers in designing and implementing learning that is more adaptive to student diversity and more effective in utilizing technology. Theoretically, this research is expected to enrich academic studies on the integration of multicultural education and TPACK in the elementary school context. Thus, this research not only has academic value, but also practical value in improving the quality of learning at the Indonesian School of Mecca. The results of this research are also expected to improve student learning outcomes and increase the diversity of learning models applied by teachers at the Indonesian School of Mecca in particular.

RESEARCH METHODOLOGY

This study uses the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) development model to develop a learning design for Elementary School Civics (PKn) based on the TPACK approach and Religious Local Content (MLR) at the Mecca Indonesian School. This model was chosen because it is systematic and capable of producing valid, practical, and effective learning products. In the analysis stage, a needs assessment was conducted on the current conditions of Civics learning, including curriculum analysis, the characteristics of multicultural students, and available technological infrastructure. The design stage focused on compiling a learning model design that integrates technology, pedagogy, and content components with religious and multicultural values, as well as the creation of tools such as teaching modules, digital media, and character assessment instruments. In the development stage, the model was validated by elementary education experts, TPACK experts, and Civics practitioners to ensure the feasibility of the content and construction, then a limited trial was conducted to obtain input on the model's practicality and usability. The implementation phase was carried out by applying the developed model to 35 sixth-grade students at the Mecca Indonesian School and one Civics teacher as research subjects using a purposive sampling technique. Furthermore, the evaluation phase was conducted to assess the effectiveness and success of the model in improving learning outcomes and strengthening student character. Data were collected through observation, interviews, and documentation, then analyzed using quantitative and qualitative approaches. Data validity was tested using method triangulation, while instrument validity was tested through content and construct validity by experts, and reliability using the Cronbach's Alpha formula. Quantitative data were analyzed using descriptive statistics to see improvements in learning outcomes, while qualitative data were analyzed using narrative descriptive analysis to describe the model implementation process, teacher and student responses, and supporting and inhibiting factors in its implementation.

RESULTS & DISCUSSION

This research was conducted at the Mecca Indonesian School (SIM) under the auspices of the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia. The research lasted for six months, from December 2025 to June 2026, covering the stages of needs analysis, model design development, expert validation, limited trials, large-scale implementation, and evaluation. The research subjects consisted of 35 sixth-grade elementary school students and one Civics teacher who were selected purposively due to their involvement in the implementation of TPACK and MLR-based learning. Data were collected through observations of teacher and student activities, in-depth interviews with teachers, and documentation of teaching materials and student learning outcomes.

The data analysis results indicate that the initial learning of Civics at SIM Mecca is still dominated by traditional approaches and has not yet optimally integrated technology. Teachers tend to use PowerPoint presentations without utilizing technology as a tool for collaboration,

exploration, or reflection of character values. Observations also show that although students come from diverse cultural and national backgrounds (Indonesia, Saudi Arabia, Pakistan, and other Gulf countries), multicultural interactions are not fully facilitated in the classroom. This highlights the gap between the potential cultural diversity of students and the learning practices that take place.

After going through the design and development stages, the Civics learning model based on TPACK and Religious Local Content (MLR) was tested for validity by three experts: a TPACK expert, an elementary education expert, and a Civics practitioner. The validation results showed that the model obtained an average validity score of 0.86, which is included in the "very strong" category based on Sugiyono's (2019) criteria. The component considered strongest was the aspect of the suitability between learning objectives and the integration of religious values in digital activities. The component that still needs strengthening is the use of technology for character-based formative assessment.

In the implementation phase, the model was applied in four Civics (PKn) learning sessions focused on the topic "The Values of Unity and Tolerance in Daily Life." Teachers used TPACK-based strategies, integrating interactive digital media, online simulations, and visual narratives of Islamic history (Shiroh Nabawiyah) to foster nationalism and religiosity. Observations showed an increase in student engagement during the learning process. Before the model was implemented, active student participation in discussions only reached 54%, increasing to 87% after the model was implemented.

Furthermore, formative test results showed an increase in the average score from 72.4 to 86.8, with a decrease in the standard deviation from 10.5 to 6.2, indicating a more equitable distribution of learning outcomes. Teachers also reported improvements in students' religious and social character traits, such as the ability to work together, respect the opinions of peers from other regions, and increased religious discipline. Table 1 below shows a summary of improvements in student learning outcomes and character indicators.

Table 1 Comparison of Learning Outcomes and Character Indicators before and after Model Implementation

Rated aspect	Before Implementation	After Implementation	Percentage Increase
Average value of civics learning outcomes	72.4	86.8	+19.9%
Student participation in discussions	54%	87%	+33%
Religious character score	3.2 (sufficient category)	4.5 (very good category)	+40.6%
Tolerance & cooperation character scores	3.4	4.6	+35.3%

Source: Primary data from observations and interviews with Civics teachers (2026).

These findings support Mishra and Koehler's (2006) TPACK theory, which emphasizes the importance of harmonious integration between content, pedagogy, and technology to produce meaningful learning. The use of digital media based on religious values has been shown to enrich the learning context and help students connect Civics concepts with spiritual experiences and local culture. These results also align with research by Darmawati et al. (2024) which shows that the TPACK-based learning model is effective in improving learning outcomes and social skills of elementary school students.

From a multicultural education perspective, the implementation of this approach aligns with the concept of Culturally Relevant Teaching (Ladson-Billings, 1995), which emphasizes the importance of linking learning content to students' cultural identities. Observations show that

by incorporating elements of Local Religious Content (MLR), such as the story of Shiroh Nabawiyah, students more easily understand national values such as responsibility, tolerance, and mutual cooperation in an Islamic context. This finding supports the studies of Mariyono (2024) and Izzati et al. (2023), which assert that multicultural and religious education can increase social empathy and intercultural cohesion in elementary schools.

Theoretically, this research contributes to the development of a contextual TPACK model that considers the integration of religious values and local culture in Civics learning design. Practically, the results of this study demonstrate that teachers can use technology not only as a medium for delivering material but also as a tool for internalizing values and character reflection. The use of digital narratives and technology-based collaborative activities has the potential to strengthen character education more deeply than conventional approaches.

Thus, it can be concluded that the TPACK and MLR-based civics learning model is effective in improving students' cognitive, affective, and social learning outcomes in a multicultural environment such as the Mecca Indonesian School. These findings also confirm that the integration of technology, pedagogy, content, and religious values can be an innovative alternative in 21st-century character education.

CONCLUSION

This study concludes that the development of a Civics (PKn) learning design for elementary schools based on the Technological Pedagogical and Content Knowledge (TPACK) and Local Religious Content (MLR) approaches at the Mecca Indonesian School has proven valid, practical, and effective in improving learning outcomes and strengthening student character. The integration of technology, pedagogy, and content contextualized with religious values can create a more interactive, reflective, and meaningful learning process. The developed learning model not only improves students' cognitive competence in Civics material but also strengthens religious character, tolerance, and cooperation among students in a multicultural environment. The validation results indicate that the model has a very high level of feasibility, while implementation in the classroom shows a significant increase in student learning participation and character behavior. Thus, the MLR-based TPACK approach can be an innovative alternative in strengthening character education in elementary schools, especially in the context of Indonesian schools abroad that have complex cultural diversity and social values. Critically, this study shows that the successful implementation of the model is highly dependent on the digital competence and pedagogical readiness of teachers, as well as the support of learning technology facilities. Therefore, it is recommended that teacher training focus not only on technology mastery but also on integrating religious and multicultural values into learning designs. Furthermore, schools are expected to provide infrastructure and policy support that encourages the meaningful use of technology in character education. This study's scope is limited to a single school and subject, making the results difficult to generalize. Future research is recommended to test the effectiveness of this model in more diverse contexts, including other subjects or schools with different cultural characteristics, and to develop more comprehensive, digital-based character assessment instruments.

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