Development Of Teaching Modules Using A Pedagogical Content Knowledge Approach To The Civic Education (Pkn) Phase C Subject In Bojonegoro

Fiky Dzakiyyatul Aula[1], Dewi Niswatul Fithriyah[2]
[1] STIT Muhammadiyah, Bojonegoro, Indonesia
[2] Universitas Nahdlatul Ulama Sunan Giri, Bojonegoro, Indonesia

ABSTRAK

Kualitas pendidian sangat penting untuk mencetak generasi penerus bangsa yang unggul diberbagai bidang. Kualitas pendidikan ini sangat dipengaruhi oleh komponen-komponen pendidikan salah satunya adalah guru yang profesional. Seorang guru harus memiliki banyak keterampilan dan skill dalam mengemas kegiatan pembelajaran. Salah satunya adalah keterampilan pedagogical content knowledge atau disebut dengan PCK. Akan tetapi fakta dilapangan menunjukkan bahwa terdapat beberapa guru yang belum memiliki keterampilan PCK sehingga pembelajaran kurang maksimal. Tujuan dari Penelitian ini bertujuan untuk mengembangkan modul ajar mata pelajaran PKn Fase C dengan pendekatan Pedagogical Content Knowledge (PCK). Metode yang digunakan adalah model pengembangan ADDIE yang terdiri dari lima tahap: analisis, desain, pengembangan, implementasi, dan evaluasi. Hasil penelitian menunjukkan bahwa modul ajar yang dikembangkan memuat materi yang selaras dengan kurikulum dan dilengkapi dengan panduan sintaks pembelajaran yang jelas, sehingga mempermudah guru dalam menyampaikan materi secara sistematis. Penggunaan modul ini terbukti membantu meningkatkan pemahaman siswa terhadap materi pembelajaran.

ABSTRACT

The quality of education is crucial for producing the next generation of the nation's leaders who excel in various fields. This quality is heavily influenced by various components of education, one of which is professional teachers. A teacher must possess various skills to effectively organize learning activities. One of these skills is Pedagogical Content Knowledge (PCK). However, the reality on the ground shows that some teachers have not yet acquired PCK skills, which results in suboptimal learning. The purpose of this research is to develop a teaching module for the C-phase Citizenship Education (PKn) subject using the PCK approach. The method used is the ADDIE development model, which consists of five stages: analysis, design, development, implementation, and evaluation. The results of the study indicate that the developed teaching module contains content that aligns with the curriculum and is accompanied by clear learning syntax guides, making it easier for teachers to present material systematically. The use of this module has proven to help improve students' understanding of the learning material..

INTRODUCTION

Education is a systematic and purposeful process aimed at developing an individual's intellectual, emotional, and social potential (Yulia & Fithriyah, 2023). Through education, individuals acquire knowledge, skills, and values necessary to actively participate in society (Hawwin Muzakki, 2021). This process is not limited to formal settings such as schools but also occurs through everyday life experiences and lifelong learning (Fithriyah et al., 2024). In this regard, education plays a vital role in shaping character, enabling individuals to contribute to building a better society and think critically about existing problems (Dewi Niswatul Fithriyah et al., 2022).

*Corresponding author.
E-mail addresses: dewiniswatul@unugiri.ac.id (Dewi)

Basic education plays a crucial role in preparing future generations to face increasingly complex challenges. At this level, the foundational development of students' intellectual, emotional, and character aspects is established (Nur'aini, 2023). Therefore, the quality of education received at the basic level significantly determines students' success at higher levels. Quality basic education involves providing a safe learning environment, effective teaching methods, and a relevant curriculum that enables students to master essential skills such as reading, writing, arithmetic, and critical thinking (Rahayu et al., 2024).

One of the most influential factors in educational success is the quality of teachers. Professional teachers play a central role in creating effective learning experiences (Gumilar et al., 2023). In this context, Pedagogical Content Knowledge (PCK) skills become highly important. PCK refers to a teacher's deep understanding of the subject matter being taught, as well as the ability to adapt and present the material in ways that suit the students' characteristics and needs (Harahap & Roza, 2020). It is the expertise that allows experienced teachers to transform subject knowledge into various teaching methods tailored to specific student groups (Smets & Tuithof, 2024).

However, in practice, many teachers still face challenges in implementing PCK optimally. This is especially true in subjects like Civics Education (PKn) at the elementary level, where many students find the content unengaging or struggle to see its relevance. Common issues include a lack of variety in teaching methods, limited use of media, and the absence of teaching modules designed with innovative and PCK-based approaches. Existing teaching modules often consist merely of textbooks with general content, lacking detailed guidance on delivery or supporting activities to aid student comprehension. This makes it difficult for teachers to present material in a structured and engaging manner.

To address these issues, there is a need to develop teaching modules that not only align with the national curriculum but also consider student needs and characteristics (Aalst, 2022; Abidin et al., 2022). A PCK-based teaching module provides clearer guidance for teachers in designing and delivering more effective instruction (Hamdi et al., 2022). PCK is the knowledge required to teach a specific subject and make it understandable for students (Mahler et al., 2024). Therefore, in its development, this module will include structured learning syntax that helps teachers select the most appropriate teaching strategies. Consequently, not only will knowledge be transmitted, but students' critical thinking skills, character development, and understanding of the subject matter will be significantly enhanced.

The importance of developing PCK-based modules is increasingly relevant in the context of rapidly evolving education systems. Education today demands more creative and innovative approaches to meet the challenges of globalization and technological advancement (Nafi'a et al., 2022). Therefore, a PCK-based module allows teachers to adapt materials to current developments while presenting learning in a more contextual and relatable manner for students. Innovative learning also positively impacts student engagement, as they become more motivated and enthusiastic about participating in the learning process (Al-Ghifary et al., 2022; Arifin, 2015).

In the context of Civics Education, the development of a PCK-based teaching module is essential to enhance students' understanding of citizenship values, their rights and obligations as citizens, and the importance of tolerance and cooperation in national life (Sumarni et al., 2024). This teaching module also supports students in developing social and critical thinking skills to address various social and political issues in society. Therefore, the development of a PCK-based module for Civics Education at the elementary level is a strategic effort—both to improve the quality of learning and to prepare students to become individuals with strong character, national insight, and critical thinking abilities. With the availability of a PCK-based teaching module, the quality of Civics Education can be enhanced alongside the strengthening of the teacher's role in educating students to become responsible and good citizens. Civics Education that is delivered in an engaging and relevant way will foster a deeper understanding of the importance of democratic values, unity, and national cohesion.

RESEARCH METHOD

This research is a type of Research and Development (R&D) study using the ADDIE development model, which consists of five stages: analysis, design, development, implementation, and evaluation. The purpose of this study is to develop a teaching module using a Pedagogical Content Knowledge (PCK) approach. The subjects of this study were all fifth-grade students at MI Ulul Albab Bojonegoro. In addition, the study also involved subject matter experts, language experts, teaching module (visualization) experts, teachers, and the school principal as data sources.

The instruments used in this study included observation sheets to obtain a real picture of the learning conditions in the classroom; interview guidelines to explore the views, experiences, and opinions of respondents regarding the use of teaching modules in the learning process; and validation questionnaires given to subject matter experts, language

experts, and module design experts to assess the feasibility of the developed product. In addition, a student questionnaire was also used to evaluate the usefulness and comprehensibility of the module from the learners' perspective.

The study employed a mixed methods approach, combining both qualitative and quantitative data (Arif, 2018, 2023). Qualitative data were obtained through observations, interviews, feedback, comments, and critiques from experts, teachers, and students. Meanwhile, quantitative data were derived from the questionnaire scores completed by the experts and students. The qualitative data were analyzed using data reduction techniques, where relevant and appropriate data were selected according to the specifications of the developed teaching module. After reduction, the data were presented in tabular form to facilitate analysis, followed by drawing conclusions based on the findings. Quantitative data were analyzed using a percentage formula for feasibility, which was then interpreted into specific categories to simplify the process of concluding the feasibility level of the developed teaching module.

RESULTS AND DISCUSSION

This research produced a product in the form of a teaching module for the subject of Pancasila and Civic Education (Civics Education) for Phase C, developed using a Pedagogical Content Knowledge (PCK) approach. This teaching module is designed to support the achievement of learning outcomes (CP) in the Merdeka Curriculum and to assist teachers in integrating both content mastery and pedagogical skills in delivering the subject matter. The development process followed the five stages of the ADDIE model, namely: analysis, design, development, implementation, and evaluation. In the analysis stage, the researchers conducted three types of initial assessments: curriculum analysis, student characteristics analysis, and material needs analysis. Curriculum analysis was carried out by examining the learning outcomes (CP), learning objectives (TP), and learning objective flow (ATP) based on official documents of the Merdeka Curriculum issued by the Ministry of Education. The results showed that the Civics Education subject in Phase C contains four main elements: Pancasila, The 1945 Constitution of the Republic of Indonesia, Bhinneka Tunggal Ika, and The Unitary State of the Republic of Indonesia (NKRI). The analysis of student characteristics aimed to identify the needs and profiles of fifth-grade MI students, especially in terms of learning styles, socio-cultural backgrounds, and prior understanding of Civics Education material. The findings revealed that students need visual, contextual, and interactive learning media.

Furthermore, the material needs analysis was conducted by reviewing relevant and contextual topics, as well as evaluating the extent to which the material could be developed using the PCK approach. The selected topics were adapted to the students' daily experiences and their needs in understanding national values.

Table 1: Analysis Results

Aspects Analyzed	Analysis results
Curriculum content	The suitability of learning outcomes (CP), learning objectives (TP), and learning objective flow (ATP) which are adjusted to the curriculum prepared by the Ministry of Education and Culture.
Target users	Students at the elementary madrasah phase C level and more precisely are class V students.
Module topics	The selected module is appropriate to the curriculum content and is also equipped with visualizations in the form of images and videos to help students understand the material.

After the analysis stage, the researchers proceeded to the second stage, design. This stage involved the systematic development of the teaching module. The researchers began by organizing the curriculum content, which included both general and element-specific learning outcomes. These outcomes were then broken down into more operational learning objectives, followed by the construction of the learning objectives flow. This process was guided by PCK principles, where teachers must be able to map out complex material and determine appropriate teaching strategies to make the content more accessible to students. The researchers then developed the learning material based on the four key elements of Civics Education. The content was designed using both conceptual and contextual approaches, enriched with illustrative images, infographics, and QR codes linked to interactive videos such as a video on the history of Pancasila's founding and profiles of its key figures. During this stage, the researchers also created learning activity syntax that was integrated with the PCK approach. Each learning activity was designed not only to transfer knowledge, but also to cultivate critical thinking skills, encourage discussion, and promote reflection. Finally, the researchers developed a prototype of the module using Canva, ensuring that it was visually appealing and user-friendly for both teachers and students. A detailed breakdown of this design stage is presented in the following table:

Table 2: Design Stage Results

Desaind	Result
Developing curriculum content	The formation of general achievements and achievements per element, TP and ATP in this module is adjusted to learning achievements.
Compiling Learning Materials	The materials that will be raised in the module are learning materials that are adjusted to the CP and TP that have been determined at the beginning. In this module, 4 main themes will be raised, namely Pancasila, the 1945 Constitution, Bhinneka Tunggal Ika, and the Unitary State of the Republic of Indonesia.
Composing activity syntax	The compilation of the syntax of learning activities must pay attention to the integration between content (knowledge of the subject matter) and pedagogy (how to teach the content effectively).
Creating a product prototype	Design product visualization using the Canva application.

The next stage is development. In this stage, the researchers focused on constructing and refining the teaching module. The curriculum content that had been previously designed was now visualized and transformed into a structured teaching module. This involved converting the planned elements such as learning outcomes, objectives, materials, and activities into a tangible and user-friendly format. The module was developed to ensure clarity, coherence, and accessibility, incorporating pedagogical strategies aligned with the PCK approach. The visual layout and structure of the module were carefully crafted to engage students and support teachers in delivering the content effectively. The appearance and features of the developed module are illustrated as follows:

Figure 1. Visualization of curriculum content

In the curriculum content, the learning outcomes were adopted directly from the official curriculum. However, in formulating the learning objectives, the researchers conducted various developments tailored to the PCK approach, as well as the characteristics of the students and the school environment. As a result, the learning objectives included several points that represent a detailed elaboration of the general learning outcomes. Furthermore, the researchers proceeded to develop the instructional materials, which were visualized and presented as follows:

Figure 2. Visualization of Module Contents

Figure 1 focuses on Pancasila. The material covered in this unit includes topics related to Pancasila, such as the background of its birth, the history of Pancasila's emergence, the principles of Pancasila along with their values, and their implementation in daily life. This section is also accompanied by visualizations of Pancasila symbols to help students remember the principles of Pancasila more easily. Additionally, this section features a barcode linking to information about the key figures who formulated Pancasila, further enriching the students' understanding of its historical context.
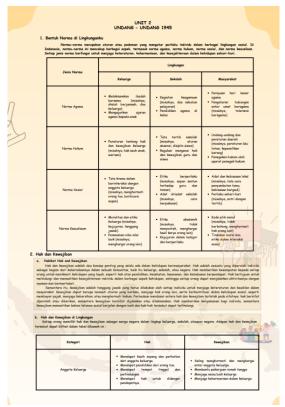
Figure 3. Visualization of Module Contents

In Unit 2, the material focuses on the 1945 Constitution (UUD 1945). All of the presented material is designed to help students gain a deeper understanding of the UUD 1945, broken down into several key points, including: the form of norms in my environment, rights and obligations, and rights and obligations in my environment. This section is also enriched with examples of norms in the students' surroundings. Additionally, an assessment is included in this part to evaluate the students' comprehension and learning progress.
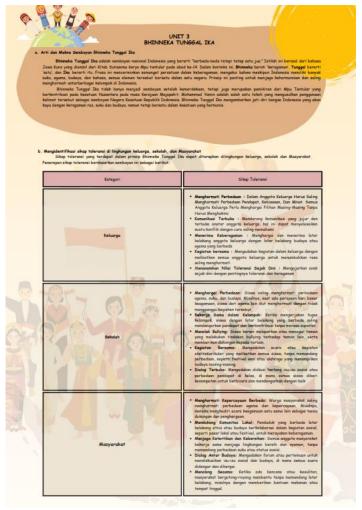
Figure 4. Visualization of Module Contents

The next step is the development of the material in Unit 3. This unit covers the topic of Bhinneka Tunggal Ika. All of the materials presented are designed to help students gain a deeper understanding of the concept, which is broken down into several key points. These include the meaning and significance of the Bhinneka Tunggal Ika motto, identifying attitudes of tolerance in the family, school, and community environments, and analyzing the important role of society in appreciating differences. This section is also supplemented with various images to assist students in understanding the material.

The fourth stage of the ADDIE development model is implementation. During the implementation phase, the teaching module was trialed with fifth-grade students at MI Ulul Albab Bojonegoro in October 2024. The teacher conducted lessons using the module as the primary reference. In the process, the teacher integrated content understanding with creative teaching strategies that were responsive to the students' needs. Observations showed that the students became more active in discussions, exhibited a high level of curiosity, and were able to relate the Civic Education material to their everyday lives. Additionally, the researchers distributed questionnaires to the students to gather feedback on their responses to the module.

The results showed that 95% of the students stated that the module helped them understand the material, 95% found the layout appealing, 90% agreed that the material was relevant to their lives, and 85% felt that the module encouraged curiosity and discussion. The data from the student questionnaires are as follows:

Table 5: Student Questionnaire Results

Rated aspect	Agree	Don't agree
Easy to understand material	90%	10%
Interesting teaching methods	85%	15%
Material relevant to everyday life	90%	10%
Teaching modules help improve understanding	95%	5%
Attractive teaching module display	95%	5%
The material is presented in an interactive manner	95%	5%
Teaching modules encourage curiosity	85%	15%
The material is presented clearly and systematically	95%	5%
Teaching modules develop thinking skills	95%	5%
The material stimulates student discussion and interaction.	95%	5%

The final stage is evaluation. This evaluation is based on the data from the validation results and the student questionnaire responses, which showed that 95% of students felt helped by the developed teaching module in improving their understanding. This feedback indicates that the module successfully met the learning needs of the students and was effective in supporting their educational progress. The evaluation process will help determine the strengths of the module and provide insights for any future revisions or enhancements.

Discussion

The development of a teaching module for the Civics Education (PPKn) subject for Phase C using the Pedagogical Content Knowledge (PCK) approach has proven effective in integrating both content mastery and appropriate teaching strategies. The PCK approach emphasizes the importance of teachers not only understanding subject content but also how to deliver that content in a way that students can grasp effectively (Jesica Dwi Rahmayanti & Muhamad Arif, 2021). This was evident in the curriculum design, which referred to learning outcomes, instructional objectives, and learning trajectories tailored to students' characteristics and school context. The initial analysis conducted by the researcher—including curriculum analysis (Abdel-Latif, 2020), learner characteristics, and material needs provided a strong foundation for the development process. The characteristics of Grade V MI (Islamic Elementary School) students, who require visual, contextual, and interactive approaches (Arif,

Rahmayanti, et al., 2021), were used as a basis for designing the module content. The alignment of the learning materials with students' socio-cultural (Ardi, 2023) backgrounds and learning styles became a key strength that enhanced student engagement in the learning process.

In the design phase, the researcher systematically structured the module based on PCK principles. Learning outcomes were translated into operational objectives and well-defined learning trajectories. The content was carefully crafted by considering levels of difficulty and appropriate delivery strategies, such as the use of images, infographics, and barcode-linked videos. The module was visually designed using Canva to create an attractive and user-friendly layout for both teachers and students (Algozzine & Diliberto, 2004).

The content was developed gradually in four main units representing the core elements of Civics Education: Pancasila, the 1945 Constitution, Unity in Diversity (Bhinneka Tunggal Ika), and the Unitary State of the Republic of Indonesia (NKRI). The content was presented in both conceptual and contextual formats, enabling students to connect national values to real-life experiences. For example, in the Bhinneka Tunggal Ika unit, students were guided to identify tolerance practices within family (Achmad et al., 2023), school, and community settings an effort to instill pluralism through meaningful learning.

The implementation phase showed the success of the learning strategies used in the module. The module was tested in a Grade V classroom at MI Ulul Albab Bojonegoro, and observations revealed increased student activity and participation. Students were more engaged in discussions, demonstrated curiosity, and were able to relate Civics Education material to their everyday lives (Adha et al., 2019). This indicates that the module functioned not only as a learning tool but also as a medium for developing critical thinking and fostering national values ('Aini & Zamroji, 2025; Arif, Kalimatusyaroh, et al., 2021).

Survey results from students further strengthened the module's success. The majority (90–95%) stated that the content was easy to understand, the layout was attractive, and the learning activities were interactive. Moreover, students felt that the material was relevant to daily life and encouraged both discussion and critical thinking. This strong positive response demonstrates the effectiveness of the PCK-based approach in enhancing learning quality and student motivation in understanding Civics Education. The evaluation phase was conducted by reviewing the validation results and overall student feedback (Ali, 2025; Alirahman et al., 2023). The findings showed that the teaching module successfully met student learning needs and supported the achievement of the intended learning outcomes. However, for further development, it is recommended that the module be tested in broader contexts and continually

updated in line with curriculum changes and student needs. Incorporating more diverse digital media could also serve as the next innovation to ensure the module remains relevant and adaptable to future educational challenges.

CONCLUSION

The result of this study is the development of a teaching module using the Pedagogical Content Knowledge (PCK) approach for Civics Education (PPKn) targeted at Phase C students. This learning module is considered highly feasible for use in the classroom because it effectively supports students in gaining a deeper understanding of the subject matter. This is attributed to the material design, which integrates content mastery with pedagogical strategies tailored to students' characteristics and needs. In addition, the visually appealing and interactive presentation of the module contributes to increased student motivation. These findings indicate that the PCK approach is effective in optimizing Civics Education learning at the Islamic elementary school (Madrasah Ibtidaiyah) level.

One of the strengths of this research lies in its comprehensive integration of curriculum content with pedagogical strategies aligned with students' developmental stages, making the module both contextually relevant and pedagogically sound. However, a notable limitation is that the study was conducted in a single school setting, which may limit the generalizability of the findings. Future research should explore the effectiveness of this module in more diverse regions and educational levels, including junior high and other types of schools. Moreover, longitudinal studies are recommended to assess the long-term impact of the module on student academic achievement and civic character development.

REFERENCE

Aalst, D. A. E. van. (2022). A Systematic Review on Primary School Teachers' Characteristics and Behaviors in Identifying, Preventing, and Reducing Bullying. International Journal of Bullying Prevention, 6(1), 124–137. https://doi.org/10.1007/s42380-022-00145-7

Abdel-Latif, S. (2020). The development of a sufi anti-curriculum: Politics of knowledge and authority in classical Islamic education. Islamic History and Civilization, 172(Query date: 2021-11-02 16:06:42), 637–667. https://doi.org/10.1163/9789004413214_029

Abidin, Z., Destari, D., Syafruddin, S., Arifin, S., & Agustiani, M. (2022). Implementation of Islamic Religious Education Learning and Character in the New Normal Era. Al-Hayat: Journal of Islamic Education, 6(1), 158–158. https://doi.org/10.35723/ajie.v6i1.239

Achmad, Z., Rahmat, M., & Kosasih, A. (2023). Religious Moderation of Islamic Religious Education Teacher in Pekanbaru City Against Minority of Islamic Mazhab. AL-

ISHLAH: Jurnal   Pendidikan,   15(2),   2518–2533. https://doi.org/10.35445/alishlah.v15i2.3168

Adha, M. M., Ulpa, E. P., Johnstone, J. M., & Cook, B. L. (2019). Moral Education in Volunteering Activities of Young Citizens. Journal of Moral and Civic Education, 3(1), 28–37. https://doi.org/10.24036/8851412312019160

'Aini, R. A. N., & Zamroji, M. (2025). Integration of Religious Moderation Values in the Islamic Religious Education Learning. Tarsib: Jurnal Program Studi PGMI, 2(2), 75–81. https://doi.org/10.61181/tarsib.v2i2.504

Al-Ghifary, D. F., Dedih, U., & Sobandi, O. (2022). Islamic Education Learning through Google Classroom Learning Media in Relation to Learning Motivation. Atthulab: Islamic   Religion   Teaching   and   Learning   Journal,   7(2),   96–107. https://doi.org/10.15575/ath.v7i2.21060

Algozzine, B., & Diliberto, J. A. (2004). Improving Descriptive Sentence Writing in Elementary Students. Preventing School Failure: Alternative Education for Children and Youth, 48(4), 34–36. https://doi.org/10.3200/PSFL.48.4.34-36

Ali, N. R. H. (2025). Islamic Religious Education Learning in Elementary School Plus at Islamic Boarding School. Tarsib: Jurnal Program Studi PGMI, 2(2), 38–49. https://doi.org/10.61181/tarsib.v2i2.388

Alirahman, A. D., Mohamad Syarif Sumantri, & Muhammad Japar. (2023). The Development of Islamic Religious Education and Character Materials Online Based in Elementary Schools. Journal of Law and Sustainable Development, 11(6), 1–19. https://doi.org/10.55908/sdgs.v11i6.550

Ardi, P. (2023). In-Service Efl Teachers' Well-Being During Online Teacher Professional Development Program in Indonesia: An Ecological Perspective. Studies in Linguistics, Culture and FLT, 11(2), 26–45. https://doi.org/10.46687/UUHH4920

Arif, M. (2018). Model Pembelajaran Mandiri Dalam Mengembangkan Kemampuan Belajar Siswa Sekolah Dasar. Journal of Islamic Elementary School, 3(2), 1–7.

Arif, M. (2023). Karya Tulis Ilmiah: Implementasi Chatgpt Dan Manajemen Referensi Menulis. PT. Sonpedia Publishing Indonesia.

Arif, M., Kalimatusyaroh, M., & Setyawati, N. R. (2021). Optimalisasi Guru Dalam Menumbuhkan Minat Membaca Huruf Braille Pada Siswa Tunanetra. Vox Edukasi, 12(1), 547879.

Arif, M., Rahmayanti, J. D., & Rahmawati, F. D. (2021). Penanaman Karakter Peduli Sosial Pada Siswa Sekolah Dasar. Qalamuna:Jurnal Pendidikan, Sosial, dan Agama, 13(2), 289–308. https://doi.org/10.37680/qalamuna.v13i2.802

Arifin, H. M. (2015). The influence of competence, motivation, and organisational culture to high school teacher job satisfaction and performance. International Education Studies, 8(1), 38–45. https://doi.org/10.5539/ies.v8n1p38

Dewi Niswatul Fithriyah, Suttrisno, Nurul Mahruzah Yulia, & Fiki Dzakiyyatul Aula. (2022). Dampak Pembelajaran Daring Selama Pandemic Terhadap Kemampuan Kognitif Peserta Didik. Jurnal Riset Madrasah Ibtidaiyah (JURMIA), 2(1), 173–180. https://doi.org/10.32665/jurmia.v2i1.275

Fithriyah, D. N., Habibullah, M. R., & Istiqomah, A. D. (2024). Pengembangan Media Pembelajaran Interaktif Berbasis Aplikasi Articulate Storyline 3 Pada Materi Days and

Months Kelas Iv Di Mi Islamiyah Banat Senori Kabupaten Tuban. *Jurnal Pendidikan Dasar Flobamorata, 5*(2), 190–197. https://doi.org/10.51494/jpdf.v5i2.1268

Gumilar, G., Rosid, D. P. S., Sumardjoko, B., & Ghufron, A. (2023). Urgensi Penggantian Kurikulum 2013 menjadi Kurikulum Merdeka. *Jurnal Papeda: Jurnal Publikasi Pendidikan Dasar, 5*(2), 148–155. https://doi.org/10.36232/jurnalpendidikandasar.v5i2.4528

Hamdi, S., Triatna, C., & Nurdin, N. (2022). Kurikulum Merdeka dalam Perspektif Pedagogik. *SAP (Susunan Artikel Pendidikan), 7*(1), 10–17. https://doi.org/10.30998/sap.v7i1.13015

Harahap, F. Z. U., & Roza, D. (2020). Pengembangan Modul Laju Reaksi Berbasis Pedagogical Content Knowledge (Pck) Untuk Meningkatkan Hasil Belajar Siswa. *Jurnal Inovasi Pembelajaran Kimia, 2*(1), 46. https://doi.org/10.24114/jipk.v2i1.17853

Hawwin Muzakki. (2021). Teori Belajar Konstruktivisme Ki Hajar Dewantara serta Relevansinya dalam Kurikulum 2013. *Southeast Asian Journal of Islamic Education Management, 2*(2), 261–282. https://doi.org/10.21154/sajiem.v2i2.64

Jesica Dwi Rahmayanti & Muhamad Arif. (2021). Penerapan Full Day School Dalam Mengembangkan Budaya Religius di Sekolah Dasar Muhammadiyah 1 Menganti Gresik. *eL Bidayah: Journal of Islamic Elementary Education, 3*(1), 11–31. https://doi.org/10.33367/jiee.v3i1.1551

Mahler, D., Bock, D., Schauber, S., & Harms, U. (2024). Using longitudinal models to describe preservice science teachers' development of content knowledge and pedagogical content knowledge. *Teaching and Teacher Education, 144*, 104583. https://doi.org/10.1016/j.tate.2024.104583

Nafi'a, M. Z. I., Kuswandi, D., & Wedi, A. (2022). Pengembangan Desain Pembelajaran Multiliterasi Berbasis Tringo dalam Pembelajaran Menulis Teks Eksposisi Siswa SMA. *JKTP: Jurnal Kajian Teknologi Pendidikan, 5*(4), 349. https://doi.org/10.17977/um038v5i42022p349

Nur'aini, S. (2023). Implementasi Project Penguatan Profil Pelajar Pancasila (P5) Profil Pelajar Rahmatan Lil Alamin (P2RA) dalam Kurikulum Prototife di Sekolah / Madrasah. *Jurnal Ilmiah Pedagogy, 2*(1), 84–97.

Rahayu, B. S., Hartinah, S., & Suriswo, S. (2024). Pengembangan Modul Ajar IPAS dengan Model Pembelajaran Project Based Learning Berbantu AI Canva pada Siswa Sekolah Dasar. *Journal of Education Research, 5*(3), 3883–3887. https://doi.org/10.37985/jer.v5i3.1502

Smets, W., & Tuithof, H. (2024). Disentangling pre-service history teachers' pedagogical content knowledge. *Teaching and Teacher Education, 148*, 104712. https://doi.org/10.1016/j.tate.2024.104712

Sumarni, M. L., Jewarut, S., Silvester, S., Melati, F. V., & Kusnanto, K. (2024). Integrasi Nilai Budaya Lokal Pada Pembelajaran di Sekolah Dasar. *Journal of Education Research, 5*(3), 2993–2998. https://doi.org/10.37985/jer.v5i3.1330

Yulia, N. M., & Fithriyah, D. N. (2023). Pengembangan Media Pembelajaran Wayang Karakter Muslim pada Mata Pelajaran Pendidikan Kewarganegaran di MIN 3 Jombang. *Indonesian Journal of Islamic Elementary Education, 2*(2), 82–93. https://doi.org/10.28918/ijiee.v2i2.6270