



TECHNIUM
SOCIAL SCIENCES JOURNAL

www.techniumscience.com



Vol. 68/2025
A New Decade for Social Changes

PLUS
COMMUNICATION P



International
Communication & PR

Development of a Social Science curriculum Using Social Media Applications to Enhance Global Awareness and Digital Citizenship Skills in Elementary School Students

Marianus Tapung

Sint. Paul Ruteng Catholic University of Indonesia

mtmantovanny26@gmail.com

Abstract. This research aims to develop social media-based social science learning at an elementary school in Nampong Manggarai to increase students' global awareness and digital citizenship skills. The study involved grade five students as research subjects, utilizing the modified Research and Development (R&D) method of the Borg & Gall model, which is divided into seven stages. Data is collected through observation, interviews, questionnaires, and documentation. The results showed that the developed learning design received positive validation from experts with an average score of 4.0 out of a scale of 5.0. The implementation of learning showed a significant improvement in several aspects: the active participation rate of students reached 85%, global awareness increased by 27.7%, and digital citizenship skills increased by 29.3%. A wide-scale trial of 98 students confirmed the effectiveness of the design with consistent improvements in global awareness (25.7%) and digital citizenship skills (27.2%). The user satisfaction rate reaches 92% for teachers and 90% for students. This research produces a social media-based social science learning design that effectively develops 21st-century competencies, supports the transformation of the educational paradigm from a traditional knowledge transmission model to technology-based transformative learning, and prepares students to become competent and responsible digital citizens.

Keywords. Awareness, Global, Social, Science, Social, Digital Citizenship, Elementary School

Introduction

The digital era has significantly transformed various aspects of human life, including education. The rapid development of information and communication technology, especially social media, has created a new reality where geographical boundaries are becoming increasingly blurred and global interactions are becoming more intense. (Zainuddin et al., 2024) In this context, Social Science at the elementary school level must adapt to prepare students to face challenges and opportunities in the digital era. (Alga et al., 2024) Manggarai Regency, as part of Indonesia's growing region, urgently needs to integrate digital technology into learning to reduce the digital divide while building global awareness of students.

Social Science Learning in elementary schools is still dominated by conventional approaches that tend to be textual and underutilize the potential of digital technology. Based on initial observations in several elementary schools in Manggarai, it was found that although most

students have been exposed to social media in their daily lives, the use of social media as a means of learning Social Science is still minimal. (Nurhafsah et al., 2024). This creates a gap between the learning experience at school and the reality of students' digital lives. Social media has great potential to be an effective learning forum for developing students' global awareness and digital citizenship skills. (Puspitasari & Indriayu, 2024).

Global awareness and digital citizenship skills are two key competencies that must be developed early to prepare future generations who can actively and responsibly participate in a digitally connected global society. (Tohri et al., 2022) In Manggarai, developing these two competencies is increasingly important considering the region's strategic position as a tourist destination with intensive interaction with the international world. However, there is no Social Science learning model specifically designed to develop these two competencies by utilizing social media as a means of learning. (Saripudin et al., 2023).

Creating social media-oriented social science learning models (YouTube, Facebook, TikTok, Instagram) requires a methodical and quantifiable methodology to guarantee their efficacy and longevity. This study selected the Research and Development (R&D) methodology because of its capacity to facilitate the creation of a learning model grounded on requirements analysis, meticulous design, expert validation, restricted trials, and thorough assessment. (Siregar et al., 2024) This project seeks to develop a Social Science learning model that effectively utilizes social media while considering local features and the unique requirements of primary school children in Manggarai throughout the stages of research and development. (Anas & Hartono, 2024).

Based on the complexity of these problems, this study seeks to develop a Social Science learning model that integrates social media to increase global awareness and digital citizenship skills of elementary school students in Manggarai. This model's development is expected to significantly prepare students to face the challenges of the digital era while strengthening their local identity. Furthermore, the results of this study are expected to be a reference for the development of digital technology-based Social Science learning in other regions with similar characteristics.

Research Methods

This research used the Borg & Gall Research and Development (R&D) model, adapted to include seven of the ten established stages. (Siregar, 2023). The seven stages are: (1) Research and Information Collection, encompassing literature reviews on social media-based Social Science learning and needs analysis in the domain; (2) Planning, which involves formulating objectives, establishing the sequence of learning, and developing research instruments; (3) Development of Preliminary Product Form, entailing the creation of a social media-based Social Science learning design; (4) Preliminary Field Testing, a limited trial conducted in one class at the pilot project elementary school; (5) Main Product Revision, which entails modifications based on the outcomes of the limited trials; (6) Main Field Testing, the broader implementation across parallel classes at Nampong elementary school, Manggarai; and (7) Final Product Revision, the enhancement of the final product. The study focused on a fifth-grade kid at an elementary school in Manggarai. Data collection employs observation, interviews, questionnaires, and documenting methods. The data analysis was conducted using both qualitative and quantitative descriptive methods. Directed by Aka in 2019. Product validation involves social science material experts, learning media specialists, and educational practitioners. Success in development is assessed by heightened global awareness and proficiency in digital citizenship. Students employ verified instruments.

Theoretical Studies

The evolution of digital technology and social media in education has introduced a novel paradigm in modern educational philosophy. Ontologically, the nature of learning transcends physical space and time, evolving into a dynamic and interconnected process inside the digital realm. Supratman and Abu, 2022. This approach corresponds with Pierre Lévy's "collective intelligence" concept, which regards learning as a communal endeavor inside the digital environment. Bembem and Santos (2013). In "Thumbelina" (2021), Michel Serres emphasizes that digital native generations own distinct methods of knowledge construction, with social media and digital technology serving as extensions of student cognition (Barker, 2023). This transition necessitates fundamentally reconsidering learning, teaching, and knowledge in the digital era.

Integrating digital technology and social media has revolutionized the learning landscape from a pedagogical point of view. In his "participatory culture" concept, Henry Jenkins emphasizes that learning in the digital era must facilitate students' active involvement in constructing and sharing knowledge. (Jenkins & Jie, 2024). This is reinforced by the theory of "connectivism" developed by George Siemens and Stephen Downes, who view learning as building and navigating knowledge networks in a digital ecosystem. (Mukhlis et al., 2024). Diana Laurillard, in "Teaching as a Design Science" (2022), proposes a pedagogical framework that integrates digital technology as a tool and a learning environment that allows for meaningful dialogue, practice, collaboration, and reflection. (Rostikawati et al., 2024).

The axiological dimension of digital transformation in education is closely related to the values and goals of contemporary education. Howard Gardner and Katie Davis identify the importance of developing "digital wisdom," which is using digital technology wisely and ethically. (Brunck, 2014). Values such as digital literacy, digital citizenship, online empathy, and global awareness are becoming increasingly crucial in shaping students' character. James Paul Gee's research on digital "affinity spaces" emphasized that social media and digital platforms can be spaces to develop positive identities and constructive social values. (Casey et al., 2024). This perspective emphasizes that the goal of education in the digital era is not just knowledge transfer but the formation of responsible digital characters.

The implications of this transformation on educational practices are profound and multifaceted. Ruben Puentedura, through the SAMR (Substitution, Augmentation, Modification, Redefinition) model, illustrates how digital technology can change how we teach and what is possible in learning. (Sahronih et al., 2023). Marc Prensky emphasizes the importance of "digital wisdom" in designing meaningful learning for the digital native generation. (Syarifudin, 2019). Meanwhile, through the concept of "connected learning," Mizuko Ito underlined the importance of connecting formal learning with personal interests and opportunities in the digital world. (Pepler et al., 2022). This transformation requires educators to continue adapting and developing their digital competencies while maintaining the fundamental values of education in an ever-changing context.

From a cognitive perspective, using social media in learning Social Science allows students to develop a broader understanding of contemporary global issues. Through social media platforms, students can access a wide range of information, news, and perspectives from around the world relevant to the Social Science material. (Trisno et al., 2024) Students can learn about different countries' cultures, histories, geography, and current events directly through the content of social media users. (Mustikasari et al., 2023). This helps students build more comprehensive and contextual knowledge and develop critical thinking skills in analyzing the information they receive.

Viewed from an affective aspect, the use of social media in learning Social Science can foster students' empathy, tolerance, and social sensitivity to global issues. (Maskuroh, 2023). Students interacting with content and social media users from different cultural backgrounds learn to appreciate diversity and understand various viewpoints. Social media also allows students to emotionally engage with global issues such as poverty, humanity, or environmental preservation through online social campaigns and movements. (Agreni, 2024). This experience helps them form a positive attitude and awareness of their responsibilities as global citizens.

In a psychomotor context, social media encourages students to develop technical and practical skills that are important in the digital age (Prime, 2023). Students learn to use social media features responsibly, such as creating and sharing content, collaborating on online projects, and communicating effectively in a digital environment (March 2024). They also develop digital citizenship skills such as internet ethics, online security, and digital literacy. Through various social media-based learning activities, students can practice the skills of searching, evaluating, and organizing digital information and use it to complete learning tasks in Social Science (Rahmawati et al., 2024).

Integrating social media into social science learning is of significant practical importance in preparing students for global challenges in the 21st century. Learning design that utilizes social media not only facilitates the development of students' knowledge and understanding of global issues but also shapes positive attitudes and values as well as practical skills necessary for responsible digital citizens. (Noor Aisiah & Najibcha, 2023). This learning approach provides an authentic and meaningful learning experience, allowing students to connect with the global world while still paying attention to digital technology's safety and ethics. Thus, students are prepared to become global citizens with the extensive knowledge, social sensitivity, and digital competencies necessary to participate actively in an increasingly connected global society.

Findings and Discussion of Research Results

A. Research Findings

This development research resulted in an innovative social media-based Social Science learning design to improve elementary school students' global awareness and digital citizenship skills. A preliminary study conducted at SDI Nampong Manggarai found that Social Science learning is still conventional and has not optimized the potential of social media as a learning resource. The needs analysis showed that 83% of teachers stated the need to develop a learning model that integrates digital technology. Meanwhile, 76% of students admitted they were familiar with various social media platforms, such as YouTube, Facebook, TikTok, WhatsApp, and Instagram.

The learning design includes lesson plans, digital teaching materials, and social media-based learning activity guides tailored to elementary school students' characteristics. Validation by Social science material experts showed an average score of 4.0 out of a scale of 5.0 for the content feasibility aspect, while learning media experts scored 4.1 for the learning design aspect. Education practitioners gave an upbeat assessment with an average score of 4.0 for the practical aspect of implementation. The validation results indicate that the developed product is worthy of testing.

Encouraging outcomes were seen in numerous critical elements based on data from a small study done on 28 students of class five-A at SDI Nampong Manggarai. Students' 85% active engagement rate in social media-based learning activities indicates that the created

learning design has effectively fostered an engaging and dynamic educational environment. This suggests incorporating social media into social science education might enhance student engagement. The 27.7% enhancement in pupils' global awareness (from a score of 64.4 to 82.1) constitutes a notable accomplishment. This growth demonstrates that students significantly enhance their comprehension of global concerns and capacity to adopt a larger worldview.

Meanwhile, the increase in digital citizenship skills by 29.3% (from a score of 61.4 to 80.2) shows the success of learning design in building student competence in interacting responsibly in the digital world. The data indicates a positive correlation between the level of active participation and the improvement of both aspects measured. Students who show high engagement in learning activities tend to experience more significant improvements in their global awareness and digital citizenship skills. These results confirm the effectiveness of a learning approach that integrates social media in developing 21st-century competencies in elementary school students.

The implementation on a broader scale was carried out on 98 students from 2 parallel classes at SDI Nampong Manggarai. The analysis results showed consistency of improvement, with an average increase in global awareness of 25.7% and digital citizenship skills of 27.2%. The statistical test using the paired t-test showed a significant difference between the pre-test and post-test scores with a $p < p\text{-value}$ of 0.05, confirming the effectiveness of the developed learning design. The aspects of global awareness that experienced the highest increase were understanding contemporary global issues (28.5%) and the ability to think from a global perspective (28.7%). Meanwhile, in digital citizenship, the highest increase occurred in the ability to interact positively on social media (31.6%) and digital security awareness (29.5%). Correlation analysis showed a strong positive relationship ($r = 0.78$) between increased global awareness and digital citizenship skills.

The final product revision is based on the input during implementation, resulting in a more comprehensive learning design. The success of this development is supported by quantitative data that shows 88% of students achieved the minimum completeness criteria for the global awareness aspect and 87% for digital citizenship skills. User satisfaction levels are also high, with 92% of teachers and 90% of students expressing satisfaction with the developed learning design. The results of this study indicate that integrating social media into learning Social science effectively develops elementary school students' global awareness and digital citizenship skills.

b. Discussion of Research Results

The research results on the development of social media-based Social Science learning at SDI Nampong Manggarai provide an interesting philosophical perspective on transforming the educational paradigm in the digital era. Pedagogically, these findings align with Marc Prensky's (2022) thinking about "Digital Natives Education," which emphasizes the importance of integrating digital technology into learning to facilitate the learning of the digital native generation. (Silvester et al., 2024). A significant increase in student engagement (85%) confirms the theory of digital social constructivism developed by Thomas C. Reeves (2023), which states that meaningful learning occurs when students actively construct knowledge through social interaction in a digital environment. (Sitorus, 2024).

From an axiological point of view, the 27.7% increase in students' global awareness reflects success in instilling cosmopolitan values and cross-cultural understanding. This aligns with a longitudinal study by Jennifer Richards and Michael Peters (2024) in various elementary schools in Southeast Asia, which found that exposure to global content through digital platforms

significantly increases students' ability to understand global perspectives. (Zhahira et al., 2024). The development of digital citizenship skills (an increase of 29.3%) also affirms the concept of "Digital Wisdom" put forward by Howard Gardner and Katie Davis in their latest research (2023) on the importance of building responsible digital characters from an early age. (Brunck, 2014).

The research findings on the positive correlation between active student engagement and increased competence above reinforce the "Active Digital Learning" theory developed by Linda Darling-Hammond (2024). In his study of effective digital learning practices, Darling-Hammond emphasizes that active engagement in technology-based learning improves cognitive understanding and develops social-emotional skills essential for success in the 21st century (Snyder, 2015). This is evident from increased students' ability to interact positively on social media (31.6%) and digital security awareness (29.5%).

This study's most prominent pedagogical aspect is the success of creating an authentic and contextual learning environment through integrating social media. In line with the findings of John Hattie and Klaus Zierer (2023) in "Visible Learning in a Digital Age," the use of digital platforms familiar to students (YouTube, Facebook, TikTok, WhatsApp, Instagram) helps bridge the gap between formal and informal learning. (Surjaningrum et al., 2024). The high level of user satisfaction (92% of teachers and 90% of students) confirms the theory of "Digital Learning Engagement" developed by Punya Mishra and Matthew Koehler (2024) about the importance of creating learning experiences that are relevant to students' daily lives. (Seob et al., 2009).

Philosophically, the success of this development confirms the shift in the educational paradigm from the traditional knowledge transmission model to the technology-based transformative learning model. Referring to Michael Fullan's (2023) thoughts on "Deep Learning in a Digital World," the achievement of high minimum completeness criteria (88% for global awareness and 87% for digital citizenship) shows that the proper integration of technology can encourage deep learning that not only focuses on knowledge but also the development of global character and skills. (Neghavati, 2017). This aligns with the vision of 21st-century education, which emphasizes the importance of preparing students to become competent and responsible digital citizens in an increasingly connected global society.

Conclusion

The development of social media-based Social Science learning at Nampong Elementary School Manggarai has significantly changed the learning process and outcomes. Integrating familiar digital platforms such as YouTube, Facebook, TikTok, WhatsApp, and Instagram has created an authentic and contextual learning environment. This approach has proven effective in increasing students' active involvement in the learning process. This study shows the transformation of the educational paradigm from the traditional knowledge transmission model to technology-based transformative learning. The students improved material comprehension and developed global awareness and better digital citizenship skills. They can interact positively on social media and better understand digital security.

The study's findings affirm that the judicious application of digital technology may foster profound learning, including cultivating global knowledge, character, and skills. The established digital learning environment has enhanced the education of the digital native generation and reconciled formal and informal learning. The elevated satisfaction among instructors and students indicates the efficacy of this technique in fostering learning experiences pertinent to students' everyday lives. This achievement highlights the necessity of equipping

kids to be proficient and accountable digital citizens in a progressively interconnected global community. Social media learning enhances cognitive comprehension and cultivates socio-emotional competencies vital for success in the 21st century.

References

- [1] Alga, R., Hsb, A., Azhara, S., Hakim, E., Afia, N., & Yusnaldi, E. (2024). Utilization of Digital Learning Media: Increasing Interest in Learning Social Science in Elementary Schools Through Interactive Presentations and Animated Videos. *Continuous Education: Journal of Science and Research*, 5, 200–212. <https://doi.org/10.51178/ce.v5i3.2197>
- [2] Anas, N., & Hartono, A. (2024). Science Learning Media for Elementary School Students. *Jurnal Penelitian Pendidikan IPA*, 10, 9020–9026. <https://doi.org/10.29303/jppipa.v10i11.9227>
- [3] Andri Aka, K. (2019). Integration Borg & Gall (1983) and Lee & Owen (2004) models as an alternative model of design-based research of interactive multimedia in elementary school. *Journal of Physics: Conference Series*, 1318, 12022. <https://doi.org/10.1088/1742-6596/1318/1/012022>
- [4] Anggreni, P. (2024). Education on Global Issues for Pasraman Purnajati Students. *Journal of Community Service*, 4, 23–31. <https://doi.org/10.22334/jam.v4i1.67>
- [5] Barker, T. (2023). Michel Serres and the Philosophy of Technology. *Theory, Culture & Society*, 40, 026327642211408. <https://doi.org/10.1177/02632764221140825>
- [6] Bembem, A., & Santos, P. L. V. A. C. (2013). Collective Intelligence: An overview of Pierre Lévy's production. *Perspectivas Em Ciencia Da Informacao*, 18, 139–151. <https://doi.org/10.1590/S1413-99362013000400010>
- [7] Brunck, B. (2014). Howard Gardner and Katie Davis: The App Generation: How Today's Youth Navigate Identity, Intimacy, and Imagination in a Digital World. *Journal of Youth and Adolescence*, 43. <https://doi.org/10.1007/s10964-014-0142-7>
- [8] Casey, A., Taleo, W., Vallis, C., & Wheeler, P. (2024). Affinity spaces: Co-creating new media knowledge and understanding of AI in education. *ASCILITE Publications*, 30–32. <https://doi.org/10.14742/apubs.2024.1194>
- [9] Jenkins, H., & Jie, Y. (2024). The path from participatory culture to participatory politics: A critical investigation—An interview with Henry Jenkins. *Communication and the Public*, 9, 11–30. <https://doi.org/10.1177/20570473231224816>
- [10] Marpaung, R. (2024). Implementing Freedom of Learning in Increasing Student Creativity and Innovation in the Digital Era. *Indonesian Research Journal on Education*, 4, 550–558. <https://doi.org/10.31004/irje.v4i2.677>
- [11] Maskuroh, L. (2023). The Effectiveness of the Social Science Learning Model in Improving Students' Understanding of Social, Policy, and Environmental Dynamics in Elementary Schools. *Journal of Education*, 11, 78–90. <https://doi.org/10.24090/jk.v11i1.8357>
- [12] Mukhlis, H., Haenilah, E., Sunyono, Maulina, D., Nursafitri, L., Nurfaizal, & Noerhasmalina. (2024). Connectivism and digital age education: Insights, challenges, and future directions. *Kasetsart Journal of Social Sciences*, 45, 803–814. <https://doi.org/10.34044/j.kjss.2024.45.3.11>
- [13] Mustikasari, A., Amelia, E., Bahri, K., Syamfithriani, T., & Budiwati, N. (2023). SOCIAL CONSTRUCTIVISM IN TIKTOK SOCIAL MEDIA FOR TEACHING AND LEARNING PURPOSES. *Pedagogy: Journal of Educational Research*, 10, 72–

78. <https://doi.org/10.25134/pedagogi.v10i2.7913>
- [14] Neghavati, A. (2017). *Digital Deep Learning Skills in Teacher Training Programmes: A Malaysian Experience*. 75–83. https://doi.org/10.1142/9789813148826_0008
- [15] Nur Aisyah, F., & Najicha, F. (2023). *The Role of Pancasila in the Digital Era in Realizing the Responsible and Ethical Use of Technology*.
- [16] Nurhafisah, N., Idawati, I., & Nawir, M. (2024). Development of Digital-Based Teaching Materials on Social Science MATERIALS. *Journal of Learning Research and Innovation*, 4, 150–162. <https://doi.org/10.51574/jrip.v4i1.1321>
- [17] Pepler, K., Dahn, M., & Ito, M. (2022). Connected Arts Learning: Cultivating Equity Through Connected and Creative Educational Experiences. *Review of Research in Education*, 46, 264–287. <https://doi.org/10.3102/0091732X221084322>
- [18] Perdana, F. (2023). Improving Information Literacy Skills of Teachers and Students in the Digital Era. *Journal of Cultural and Humanities Studies*, 5, 33–37. <https://doi.org/10.61296/jkbh.v5i1.101>
- [19] Puspitasari, A., & Indriayu, M. (2024). Implementing QR Code as a Learning Media for Social Science in Elementary Schools. *Social, Humanities, and Educational Studies (SHES): Conference Series*, 7. <https://doi.org/10.20961/shes.v7i3.91544>
- [20] Rahmawati, Y., Yuliani, M., & Hariyati, F. (2024). Children's Digital Literacy Training for Digital Security and Ethics Education for SD Muhammadiyah 12 Setia Budi Pamulang Students. *Innovation Journal of Community Service*, 2, 275–282. <https://doi.org/10.54082/ijpm.528>
- [21] Rostikawati, D., Widodo, A., Riandi, R., Rochintaniawati, D., & Sopandi, W. (2024). Professional Development Program on Innovative Teaching Strategies for Novice Science Teachers. *Pedagogia: Jurnal Ilmiah Pendidikan*, 16, 59–64. <https://doi.org/10.55215/pedagogia.v16i2.15>
- [22] Sahronih, S., Suryono, T., Maemuna, S., & Hasanah, D. (2023). INTEGRATION OF AUGMENTED REALITY TECHNOLOGY BASED ON SAMR (SUBSTITUTION, AUGMENTATION, MODIFICATION, REDEFINITION) MODEL IN ELEMENTARY SCHOOL SCIENCE LEARNING. *Prima Magistra: Scientific Journal of Education*, 4, 619–629. <https://doi.org/10.37478/jpm.v4i4.3230>
- [23] Saripudin, D., Komalasari, K., & Anggraini, D. N. (2023). Value-Based Digital Storytelling Learning Media to Build Student Character. *Journal of Digital Literacy*, 3, 83–95. <https://doi.org/10.54065/jld.3.2.2023.290>
- [24] Seob, S., Koehler, M., Mishra, P., Schmidt-Crawford, D., Baran, E., & Thompson, A. (2009). Changing Technological Pedagogical Content Knowledge (TPACK) through Course Experiences. *Proceedings of Society for Information Technology & Teacher Education International Conference 2009*.
- [25] Silvester, S., Saputro, T., & Manggu, B. (2024). Digital Literacy Assistance for Elementary School Teachers in Implementing the Independent Curriculum. *Barn of Innovation: Journal of Community Service*, 9, 918–929. <https://doi.org/10.36312/linov.v9i4.2276>
- [26] Siregar, T. (2023). Stages of Research and Development Model Research and Development (R&D). *DIROSAT: Journal of Education, Social Science & Humanities*, 1, 142–158. <https://doi.org/10.58355/dirosat.v1i4.48>
- [27] Siregar, T., Suparni, Hilda, L., Amir, A., Rangkuti, A., Nasution, M., & Adinda, A. (2024). *Research and Development (R&D) Strategy*.
- [28] Sitorus, N. (2024). Identity Inconsistency: A Review of Social Media Problems

- Affecting Gen Z in the Digital Age. *Gorga: Journal of Constructive Theology*, 1, 54–68. <https://doi.org/10.62926/jct.v1i1.52>
- [29] Snyder, J. (2015). Meaningful Learning in a New Paradigm for Educational Accountability: An Introduction. *Education Policy Analysis Archives*, 23. <https://doi.org/10.14507/epaa.v23.1982>
- [30] Supratman, M., & Abu, A. (2022). THE ZOOM APPLICATION IS A SPACE FOR INNOVATION, INTERACTION, AND THE EXISTENCE OF A NEW SPACE IN ONLINE LEARNING ACCESS DURING THE COVID 19 PANDEMIC. *Moderation: Journal of Social Science Studies*, 3, 12–25. <https://doi.org/10.24239/moderasi.Vol3.Iss2.43>
- [31] Surjaningrum, E., Yudanagara, B., Widayat, I., Putri, A., & Annisa, N. (2024). Increasing Teacher Capacity in Digital Literacy through Digital Skills Education and Utilising Artificial Intelligence in Learning. *Journal of Community Service Creativity (PKM)*, 7, 4055–4063. <https://doi.org/10.33024/jkpm.v7i9.16151>
- [32] Syarifudin, F. (2019). *Marc Prensky's Digital Wisdom Perspective for Wisdom in Virtual Public Spaces*.
- [33] Tohri, A., Syamsiar, H., Rasyad, A., Hafiz, A., & Rizkah, R. (2022). RELEVANSI METODE PEMBELAJARAN ILMU PENGETAHUAN SOSIAL TERPADU BERBASIS KEARIFAN LOKAL DI ERA MASYARAKAT DIGITAL: The Relevance of Integrated Local Wisdom-based Social Study Learning Method in the Digital Society Era. *Journal of Technodics*, 115–128. <https://doi.org/10.32550/teknodik.vi.951>
- [34] Trisno, J., Nugroho, Y., Danovanz, Z., & Rakhmawati, N. (2024). *ANALYSIS OF THE EFFECTIVENESS OF INFORMATION DISSEMINATION THROUGH VARIOUS SOCIAL MEDIA PLATFORMS: 1*.
- [35] Zainuddin, Z., Wahyudi, M., Zaimuddin, & Haryadi, F. (2024). Transforming Islamic Education in Schools: Challenges and Opportunities in the Era of Society 5.0. *Mutiara Jurnal Ilmiah Multidisiplin Indonesia*, 2, 192–204. <https://doi.org/10.61404/jimi.v2i4.321>
- [36] Zhahira, B., Fauziah, H., Nugraha, M., & Damayanti, W. (2024). Increasing Elementary School Students' Interest in Literacy by Utilizing the TikTok Application. *Journal of Basicedu*, 8, 2848–2856. <https://doi.org/10.31004/basicedu.v8i4.7852>