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Integration of Technology and Character Education in the Teaching Campus 6 Program at GMIM Tonsea Lama Elementary School: Transforming Learning in the Digital Era

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ABSTRACT

This study aims to analyze the implementation of technology integration and character education through the Teaching Campus Program at GMIM Tonsea Lama Elementary School and explore its impact on learning transformation in the digital era. The research method uses a qualitative approach with a case study design, with data collection techniques through methodological triangulation including participant observation, documentation, and in-depth interviews. Data analysis was conducted using the Miles and Huberman thematic analysis model with the stages of data reduction, data presentation, and conclusion drawing. The results of the study show significant success in improving students' literacy skills from 52% to 77% and numeracy from 38% to 67% through innovative programs such as "Read Aloud", "3 Vocabulary per Day", and "5 Minutes Playing with Favorite Numbers". The character development program through "Pen Pals", environmental activities, and digital literacy successfully formed empathy, environmental responsibility, and self-confidence in students. Learning transformation occurred through multi-stakeholder collaboration and technological adaptation within limited facilities, creating a sustainable and character-based learning model. This program proves that the integration of technology and character education can be implemented effectively with an adaptive and collaborative approach, making an important contribution to the development of quality education in Indonesia.

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1. Introduction

The digital era has brought significant transformations to various aspects of life, including education. Advances in digital technology have not only changed the way information is delivered but also revolutionized learning methods and interactions between educators and students (Husamah et al., 2024). The rapid development of information and communication technology has brought about a fundamental shift in the educational paradigm, shifting from conventional learning to digital-based learning. The integration of technology into education is not merely the use of digital devices, but rather a comprehensive effort to improve the quality of learning and optimize students' potential in this modern era.

Along with technological developments, the need for digital literacy has emerged, becoming a crucial life skill for the younger generation. Digital literacy is defined as a person's ability to evaluate, find, utilize, share, and create content using information technology and the internet (Ubaidah, 2022). In the context of elementary school education, digital literacy plays a crucial role in the interaction and communication processes during learning and helps students develop the technological competencies necessary to face future challenges (Qurtubi et al., 2024). The era of globalization has opened up easier access to technology, and this convenience is also felt in the learning process because technology can provide various benefits.

The Kampus Mengajar (Teaching Campus) Program, initiated by the Ministry of Education, Culture, Research, and Technology, is a strategic effort to encourage the digitalization of education in Indonesia. This program aims to assist schools in adapting to technology, particularly those with limited facilities and resources (Directorate General of Higher Education, Research, and Technology, 2021). Through this program, students are given the opportunity to directly contribute to educational transformation by implementing various technology-based learning innovations in target schools. The digitalization of education is a global trend that promises to improve the quality of education, especially with the development of increasingly sophisticated and accessible information and communication technology.

However, the integration of technology in education cannot be separated from the aspect of character education, which is the main foundation for developing a quality generation. Character education is a crucial component within the framework of developing moral and ethical values in students (Suwarsito et al., 2023). In the era of Society 5.0, where digital technology has become an essential part of everyday life, digital literacy is a crucial factor in strengthening character education. The integration of technology and character education creates a holistic learning approach that not only develops academic abilities but also shapes students' positive character through wise and responsible use of technology.

At the elementary school level, the challenges of integrating technology and character education become increasingly complex because they involve students who are still developing their character and identity. Research shows that advances in digital technology have brought significant transformations to the learning process in elementary schools, but various barriers remain that need to be addressed to maximize its benefits (IRJE Research Team, 2024). These barriers include limited technological infrastructure, a lack of digital competence among educators, and a limited understanding of how to integrate character values into technology-based learning. Therefore, appropriate strategies are needed to ensure that the use of technology in education can have a positive impact on both academic and character-building aspects.

The Kampus Mengajar program serves as a bridge between the academic world of higher education and the realities of elementary school education, particularly in addressing the challenges of digitalization. Through this program, students not only act as agents of change in technology implementation but also as facilitators in strengthening character education in target schools. Their presence in schools brings new perspectives on how technology can be optimally utilized to support meaningful and character-based learning. The program also provides students with opportunities to develop their pedagogical and technological competencies while making a significant contribution to improving the quality of education in Indonesia.

The implementation of the Kampus Mengajar Program in elementary schools like GMIM Tonsea Lama Elementary School demonstrates the complex challenges faced in integrating technology and character education. Based on an analysis of the school's needs, there are still gaps in literacy and numeracy, as well as limited adequate technological facilities. However, through various systematically designed work programs, ranging from digital literacy activities, technology adaptation, and student character development, the Kampus Mengajar Program has proven to have a positive impact on improving the quality of learning. Evaluation results show significant improvements in student literacy and numeracy skills, as well as the formation of positive character through various activities that integrate moral values into the use of technology.

The successful integration of technology and character education in the Kampus Mengajar Program serves as an inspiration and model that can be adapted by similar programs in various regions across Indonesia. With a holistic and sustainable approach, this program demonstrates that technology is not merely a learning tool but can be a medium for building character and positive values in students. The learning transformation that occurs through this program offers new hope for the future of Indonesian education, one that is of higher quality and character-based, capable of facing the challenges of the digital era with confidence and integrity. Several previous studies have explored various aspects of technology integration in education and strengthening character education in the digital age. Qurtubi et al. (2024), in their study on "Integration of Strengthening Character Education in Digital Literacy-Based Learning for Elementary School Students," found that digital literacy-based learning can be an effective medium for instilling character values in elementary school students. This study demonstrated that when technology is integrated with a character education approach, there is a significant increase in students' understanding of moral and ethical values, while simultaneously improving their digital literacy skills. These findings indicate that integrating technology and character education is not only possible but also produces synergistic results for the holistic development of students.

Suwarsito et al. (2023), in their study on "Digital Literacy as a Path to Strengthening Character Education in the Era of Society 5.0," emphasized that digital literacy is a crucial factor in strengthening character education in the modern era. This study used a literature review method to analyze the role of digital literacy in shaping students' character. It found that an individual's ability to use, evaluate, and actively participate in digital environments can strengthen character values such as responsibility, integrity, and empathy. Furthermore, this study also identified that character education integrated with digital literacy can help students address moral and ethical challenges emerging in the digital age, such as cyberbullying, hoaxes, and irresponsible social media use.

The IRJE Research Team (2024), in its study on "Technology Integration in Education: Challenges and Opportunities for Digital Learning in Elementary Schools," examined in depth how technology can be effectively integrated into the learning process in elementary schools. This qualitative research using a literature review approach revealed that although advances in digital technology have brought significant transformations to the world of education, various obstacles remain that need to be overcome, such as limited infrastructure, a lack of teacher digital competence, and minimal support from relevant stakeholders. This study also highlights the importance of a holistic approach to technology integration, one

that focuses not only on technical aspects but also considers pedagogical aspects and the character values intended to be instilled in students.

Although numerous studies have explored the integration of technology in education and the strengthening of character education separately, there remains a gap in the literature regarding how these two aspects can be effectively integrated within the context of community service programs such as the Teaching Campus Program. Previous studies have tended to focus on a single aspect, either educational technology or character education, without providing a comprehensive overview of how the two can be synergistically integrated in real-world practice. Furthermore, most existing research remains theoretical or based on literature reviews, with minimal empirical research analyzing the concrete implementation of technology integration and character education in actual elementary school settings.

Another gap lies in the lack of documentation and in-depth analysis of the role of students as agents of change in the process of integrating technology and character education in target schools. Previous studies have generally focused on the role of teachers or professional educators, but few have explored the unique contributions students can make through programs like Teaching Campus. Yet, students possess distinct perspectives and characteristics from professional educators, such as a close age relationship with students, a strong ability to adapt to new technologies, and a spirit of innovation that can act as catalysts in the educational transformation process. This research gap is crucial to explore, given the growing number of similar programs involving students in efforts to improve the quality of education in Indonesia.

This research offers a novel approach in the form of a comprehensive analysis of the integrated implementation of technology and character education through the Kampus Mengajar Program in a real elementary school setting. Unlike previous studies, which were generally theoretical or partial, this study presents comprehensive documentation of how students can act as facilitators in creating learning that not only optimally utilizes technology but also simultaneously strengthens students' character values. This novelty lies in its holistic approach, integrating aspects of technology, pedagogy, and character development within a coherent and practically implementable framework. Furthermore, this research provides a unique contribution in the form of an implementation model that can be adapted by similar programs in various regions across Indonesia.

Another innovative aspect of this research is the use of a multi-stakeholder perspective in analyzing the impact of the Kampus Mengajar Program, which involves not only students as implementers but also teachers, students, principals, and field supervisors as integral components of the educational ecosystem. This approach provides a more complete and balanced picture of the dynamics that occur in the process of integrating technology and character education, and identifies key factors contributing to the success or failure of program implementation. The novelty of this research also lies in its in-depth analysis of the learning transformation occurring in the digital era, where technology is viewed not merely as a technical tool but as a medium for building character and positive values in students, ultimately creating a generation that is not only academically intelligent but also possesses strong character and high integrity.

The reality of implementing the integration of technology and character education in Indonesian elementary schools still faces various complex challenges that require innovative and sustainable solutions. Based on the experience of the Kampus Mengajar Program at

GMIM Tonsea Lama Elementary School, it was identified that limited technological facilities remain a major obstacle to the digitalization of education, as the school lacks adequate infrastructure to support technology-based learning. This situation requires students and teaching teams to find creative solutions, such as utilizing personal devices and adapting learning methods that do not rely entirely on advanced technology. This reality reflects the conditions of many schools in Indonesia, particularly in remote areas or with limited resources, which require a flexible and adaptive approach to implementing educational digitalization programs.

On the other hand, field realities also show that the enthusiasm and positive response from students, teachers, and schools to the technology and character education integration program is quite encouraging. Evaluation data shows a significant increase in Students' literacy and numeracy skills increased from 52% to 77% for literacy and from 38% to 67% for numeracy, indicating the effectiveness of the approach used. Furthermore, various character programs such as the "Good Deeds Challenge," "Pen Pals," and digital literacy activities have been shown to shape positive behavior and increase student self-confidence. This reality provides hope that with the right approach and strong commitment from all stakeholders, the integration of technology and character education can be successfully implemented even under limited resources, and have a sustainable positive impact on the development of education in Indonesia.

2. Method

This research uses a qualitative approach with a case study design to analyze the implementation of technology integration and character education through the Teaching Campus Program at GMIM Tonsea Lama Elementary School. A qualitative approach was chosen because it provides an in-depth understanding of complex phenomena involving dynamic interactions between students, teachers, and various educational stakeholders in a real-world context (Creswell, 2018). This method allows researchers to explore nuances of program implementation that cannot be captured through a purely quantitative approach, and provides a holistic picture of the learning transformation process occurring in the target school.

The data collection technique in this study employed methodological triangulation, consisting of participant observation, documentation, and in-depth interviews. Participant observation was conducted during the Teaching Campus Program implementation to directly observe the learning dynamics, interactions between students, and the responses of various stakeholders to the implemented programs (Spradley, 2016). This observation method allows researchers to obtain authentic data about the program implementation process without interventions that could alter the natural behavior of the research subjects. Observations were conducted systematically using a prepared observation guide to ensure the consistency and completeness of the collected data.

Documentation is a crucial secondary data collection technique in this research, providing concrete evidence of program implementation and impact. Documentation data includes student activity reports, pre- and post-test results for the AKM (Minimum Competency Assessment), activity photographs, student work, and other supporting documents related to program implementation (Bowen, 2009). This documentation analysis allows researchers to verify observation and interview data, while also providing historical

context for the program's development over time. Documentation also serves as a source of triangulation data, strengthening the validity of the research findings.

Data analysis was conducted using thematic analysis techniques following the model of Miles and Huberman (2014), which involves data reduction, data presentation, and conclusion drawing. The analysis process begins with organizing and coding raw data from various sources, then identifying emerging patterns and themes. Analysis is conducted iteratively, constantly comparing data from various sources to ensure consistency and accuracy of interpretation. To maintain the credibility of the research, member checking is conducted, involving key stakeholders in verifying the findings.

The validity and reliability of the research were ensured through the application of trustworthiness criteria, including credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Credibility was ensured through triangulation of sources and methods, as well as in-depth and prolonged involvement in the field. Transferability was ensured through a detailed and comprehensive description of the research context, allowing readers to assess the relevance of the findings to other contexts. Dependability and confirmability were maintained through systematic documentation of the research process and an audit trail that allowed other researchers to trace the methodological decisions made during the research process.

3. Result and Discussion

a. Result

1) Implementation of Technology-Based Literacy and Numeracy Programs

The implementation of the literacy program within the Teaching Campus Program at GMIM Tonsea Lama Elementary School has demonstrated significant success in improving students' reading and comprehension skills. The "Read Aloud" program, which has been consistently implemented, has proven effective in developing students' critical thinking skills. Students read texts aloud to students and then ask comprehension questions afterward. This activity not only improves students' listening and comprehension skills but also successfully builds their vocabulary and speaking fluency. Students' enthusiasm for the program is reflected in their active participation in answering questions and sharing their understanding of the stories read.

The "3 Vocabularies per Day" program, implemented in the program, has demonstrated a positive impact in improving students' English knowledge in a gradual and structured manner. Through this program, students are asked to record three English vocabulary words each day and are periodically tested by Teaching Campus students. This approach has proven effective because it provides consistent and manageable learning, ensuring students' learning is not overburdened but still provides measurable progress. Weekly evaluations have shown improvements in students' English skills, as reflected in their ability to use new vocabulary in everyday conversation. The "English Day" program has successfully accustomed students to communicating in English in a learning context. This activity involves all students actively speaking English during the lesson, with guidance and support from Kampus Mengajar students. This program not only increases students' motivation to learn English but also boosts their confidence in using a foreign language.

Documentation of the activities shows that students have become more enthusiastic and confident in expressing themselves in English.

Numeracy evaluation data demonstrates the successful implementation of the "5 Minutes Playing with Favorite Numbers" and "Creating Number Operations According to Dates" programs, which have been running for one month. Both programs successfully improved students' critical thinking skills in number operations. Pre-test results showed only 38% of students were able to answer correctly, increasing to 67% in the post-test. The program also successfully developed students' creativity in solving math problems, with their work displayed in class as a form of appreciation and motivation. This significant improvement demonstrates the effectiveness of a learning approach that integrates games with basic math concepts.

2) Integration of Technology and Student Character Development

The implementation of the "Pen Pals" program has successfully developed students' empathy and written communication skills through correspondence activities with students from Wailan Elementary School. This program involves students writing letters at home, which are then collected and exchanged with letters from students from other schools. This activity not only improves students' writing skills but also teaches the values of tolerance, friendship, and appreciation for differences. Documentation demonstrates the students' high enthusiasm for the program, as evidenced by their eagerness to write letters and eagerly await replies from their pen pals at other schools.

Character development programs through environmental activities that have been implemented include "Recycling Used Materials," "Creating a Living Pharmacy," and "Mung Bean Planting Project." Recycling activities teach students to be creative in transforming used materials into useful items, while instilling values of environmental stewardship and creativity. The Living Pharmacy program successfully provides students with knowledge about traditional medicinal plants while creating a beautiful and beneficial school environment. The mung bean planting project integrates science learning with character education, where students learn about plant growth while developing a sense of responsibility and perseverance in caring for their plants.

The "Electricity Saving Socialization" program used PowerPoint presentations to convey the importance of energy conservation to students and teachers. This program successfully raised students' awareness of environmental responsibility and the wise use of technology. Through interactive presentations, students not only gained knowledge about energy conservation but also learned to use technology as an effective educational tool. Evaluations showed that students began to adopt energy-saving behaviors at school and at home, such as turning off lights and fans when not in use.

The digital literacy program, implemented through the "Reading Corner," successfully created a dedicated corner in the classroom for storing and organizing reading materials in an attractive manner. This activity integrated simple technology into book

collection management and encouraged students to engage in literacy activities before class. Students were asked to summarize the books they had read, which were then documented to evaluate their literacy progress. This program successfully increased students' interest in reading and fostered a culture of literacy in the classroom, with students becoming more engaged in reading and sharing stories from the books they had read.

3) The Impact and Transformation of Learning in the Digital Era

The transformation of learning methodology at GMIM Tonsea Lama Elementary School is evident through the implementation of extracurricular activities, such as the "Coloring Competition," "Training Ceremonial Officers," and various literacy and numeracy festivals. The coloring competitions successfully fostered student creativity and beautified the classroom environment with student work displayed on the walls. The training program for ceremony officers helped students develop self-confidence and leadership skills, while instilling nationalistic values. The literacy and numeracy festivals, combined with environmental mitigation activities, created integrated learning that integrated various aspects of education into one comprehensive activity.

Collaboration between various stakeholders is evident in the successful implementation of collective projects, such as "Poetry Book Creation" and "Chapter Book Creation on Teaching Skills in Elementary Schools." The poetry book project involved teachers, senior students, university students, and field supervisors in creating collective works that became valuable keepsakes. Meanwhile, the chapter book project provided an opportunity for teachers to share experiences and knowledge in written form that can serve as references for other educators. Both projects demonstrate how simple technology can be used to produce meaningful and sustainable work. Adapting technology to limited facilities demonstrates creativity and flexibility in program implementation. Kampus Mengajar students successfully overcame infrastructure challenges by using personal devices like mobile phones and laptops to support learning activities such as implementing AKM (Community Based Learning) and playing instructional videos. This adaptive approach demonstrates that integrating technology into education does not always require sophisticated facilities, but rather requires creativity in utilizing available resources. This strategy also teaches students that technology is a tool that can be used flexibly to support learning.

The sustainability of the program's impact is evident in the changes in behavior and learning culture established at the school after the Kampus Mengajar Program implementation. Students became more active in learning activities, more confident in expressing ideas, and more concerned about their surroundings. Teachers also reported increased student motivation and participation in daily learning. The programs implemented have successfully created a strong foundation for sustainable educational development, where the values and learning methods instilled can be further developed even after the program ends. This transformation offers hope for a future of higher-quality and more character-based education at GMIM Tonsea Lama Elementary School.

b. Discussion

1) Implementation of Technology-Based Literacy and Numeracy Programs

The successful implementation of a technology-based literacy and numeracy program at GMIM Tonsea Lama Elementary School demonstrates consistency with previous research findings that emphasize the importance of innovative approaches in elementary learning. The "Read Aloud" program, implemented in 2001, aligns with Vygotsky's (1978) social constructivism theory, which emphasizes the role of social interaction in learning, where students act as mediators, helping students build understanding through shared reading activities. The program's effectiveness is also supported by Nation's (2001) research, which showed that repeated exposure to vocabulary through reading activities can significantly improve language skills. The increase in literacy skills from 52% to 77% demonstrates that an approach integrating simple technology with traditional learning methods can produce optimal impact.

The numeracy program, which showed an increase from 38% to 67%, aligns with Freudenthal's (1991) theory of realistic mathematics learning, which states that mathematics learning must begin in a meaningful context for students. The "5 Minutes Playing with Favorite Numbers" and "Creating Number Operations According to Dates" programs successfully contextualized mathematics learning with students' everyday lives. This is consistent with research by Gravemeijer (1994), which showed that a realistic approach to mathematics learning can improve students' conceptual understanding. The use of simple technology in this program also supports the TPACK (Technological Pedagogical Content Knowledge) theory developed by Mishra and Koehler (2006), where the integration of technology, pedagogy, and content can create effective learning.

The success of the English language program, "3 Vocabulary per Day" and "English Day," demonstrates the effectiveness of a structured and sustainable language learning approach. According to Krashen's (1982) theory of second language acquisition, effective language learning requires comprehensible input and a supportive environment. The implemented program successfully created a learning environment conducive to English acquisition through continuous practice and contextual use. Research by Ellis (2008) also confirms that repetition and structured practice are key to success in foreign language learning, as reflected in the program design implemented at this school.

2) Integration of Technology and Student Character Development

The implementation of the "Pen Pals" program demonstrates the successful integration of communication technology with the development of empathy and tolerance in students, which aligns with Kohlberg's (1984) theory of moral development regarding the importance of social interaction in the formation of moral awareness. This program successfully created a space for students to develop social perspectives through written communication with students from other schools, which Hoffman (2000) argues is an effective way to develop cognitive and affective empathy. This approach is also consistent with research by Battistich et al. (2004) which shows that interschool collaborative activities can improve students' social skills and concern for others.

Character development programs through environmental activities such as "Recycling Used Materials," "Creating a Living Pharmacy," and "Growing Green Bean Project" demonstrate the effective implementation of project-based learning theory (Krajcik & Shin, 2014), which integrates academic learning with character development. These activities align with the concept of holistic character education developed by Lickona (1991), which states that character development must simultaneously involve cognitive, affective, and behavioral aspects. Research by Berkowitz and Bier (2005) also supports this approach by demonstrating that effective character education programs must integrate academic learning with meaningful practical experiences for students.

The "Electricity Saving Socialization" activity and the implementation of the "Reading Corner" demonstrate the successful integration of digital literacy with character education, which is consistent with the concept of digital citizenship developed by Ribble (2015). This program successfully teaches students to use technology responsibly while developing environmental awareness. According to research by Prensky (2010), the digital native generation requires a learning approach that integrates technology with moral values to build positive digital character. The success of this program also aligns with the findings of research by Suwarsito et al. (2023), which confirms that digital literacy can be an effective medium for strengthening character education in the era of Society 5.0.

3) The Impact and Transformation of Learning in the Digital Era

The transformation of learning methodology at GMIM Tonsea Lama Elementary School demonstrates the successful implementation of a blended learning model that combines traditional approaches with simple technology, aligning with Rogers' (2003) diffusion of innovation theory on technology adoption in social systems. Students' ability to adapt to limited facilities reflects the principle of appropriate technology developed by Schumacher (1973), which states that technology must be tailored to the context and capabilities of the user. Research by Bates (2019) also supports this adaptive approach, demonstrating that the success of technology integration in education is determined more by its suitability to the local context than by the sophistication of the technology itself.

The multi-stakeholder collaboration seen in the "Poetry Book Making" and "Chapter Book Making" projects demonstrates the effective implementation of the community of practice theory developed by Wenger (1998), where learning occurs through active participation in a community with a shared purpose. This approach aligns with the concept of collaborative learning proposed by Johnson and Johnson (2014), which suggests that collaborative learning can improve academic outcomes while developing social skills. Fullan's (2007) research also confirms that sustainable educational change requires strong collaboration between various stakeholders within the education ecosystem.

The sustainability of the program's impact demonstrates the successful implementation of the educational change model developed by Kotter (1996), where effective change requires the formation of a new culture that can endure after the intervention ends. The resulting behavioral transformation and learning culture reflect the success of creating what Senge (1990) calls a "learning organization" at the elementary school level. Research by Hargreaves and Fink (2006) also supports these findings by demonstrating that sustainable educational change requires building internal school capacity and establishing a strong learning culture.

4. Conclusion

The implementation of the Teaching Campus Program at GMIM Tonsea Lama Elementary School has successfully demonstrated that the integration of technology and character education can be effectively implemented even under limited facilities. The program's success is evident in the significant increase in students' literacy skills from 52% to 77% and numeracy from 38% to 67%, as well as the development of positive character traits through various development programs such as "Pen Pals," environmental activities, and digital literacy. The innovative programs implemented demonstrate that students can act as catalysts for change in the transformation of learning, creating creative and adaptive solutions tailored to the specific conditions of the target school. Multi-stakeholder collaboration involving students, teachers, students, and field supervisors has created a learning ecosystem conducive to the holistic development of students.

The learning transformation achieved through the Teaching Campus Program makes a significant contribution to the development of educational models in the digital era that focus not only on technology but also on strengthening students' character. The sustained impact seen in the changes in learning culture and student behavior demonstrates that this program has successfully created a strong foundation for the development of sustainable education. This proven, effective implementation model can serve as a reference and inspiration for similar programs in various regions across Indonesia, with adaptations to suit their respective local contexts. The successful integration of technology and character education within the Kampus Mengajar Program demonstrates that with the right approach, strong commitment, and effective collaboration, a transformation in quality and character-based education can be realized, creating a generation ready to face future challenges.

References

Bates, A. W. (2019). Teaching in a digital age: Guidelines for designing teaching and learning. Tony Bates Associates Ltd.

Battistich, V., Schaps, E., & Wilson, N. (2004). Effects of an elementary school intervention on students' "connectedness" to school and social adjustment during middle school. Journal of Primary Prevention, 24(3), 243-262.

Berkowitz, M. W., & Bier, M. C. (2005). Character education: Parents as partners. Educational Leadership, 63(1), 64-69.

Bowen, G. A. (2009). Document analysis as a qualitative research method. Qualitative Research Journal, 9(2), 27-40.

Creswell, J. W. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). Sage Publications.

Ditjen Diktiristek. (2021). Panduan program kampus mengajar angkatan 2. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.

Ellis, R. (2008). The study of second language acquisition (2nd ed.). Oxford University Press.

Freudenthal, H. (1991). Revisiting mathematics education. Kluwer Academic Publishers.

Fullan, M. (2007). The new meaning of educational change (4th ed.). Teachers College Press.

Gravemeijer, K. (1994). Developing realistic mathematics education. CD-β Press.

Hargreaves, A., & Fink, D. (2006). Sustainable leadership. Jossey-Bass.

Hoffman, M. L. (2000). Empathy and moral development: Implications for caring and justice. Cambridge University Press.

Husamah, H., Restian, A., & Widodo, R. (2024). Digital transformation in education: Challenges and opportunities in the post-pandemic era. International Journal of Educational Technology, 15(2), 45-62.

Johnson, D. W., & Johnson, R. T. (2014). Cooperative learning in 21st century. Anker Publishing.

Kohlberg, L. (1984). Essays on moral development: The psychology of moral development (Vol. 2). Harper & Row.

Kotter, J. P. (1996). Leading change. Harvard Business Review Press.

Krajcik, J. S., & Shin, N. (2014). Project-based learning. In R. K. Sawyer (Ed.), The Cambridge handbook of the learning sciences (pp. 275-297). Cambridge University Press.

Krashen, S. D. (1982). Principles and practice in second language acquisition. Pergamon Press.

Lickona, T. (1991). Educating for character: How our schools can teach respect and responsibility. Bantam Books.

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Sage Publications.

Miles, M. B., & Huberman, A. M. (2014). Qualitative data analysis: A methods sourcebook (3rd ed.). Sage Publications.

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers College Record, 108(6), 1017-1054.

Nation, I. S. P. (2001). Learning vocabulary in another language. Cambridge University Press.

Prensky, M. (2010). Teaching digital natives: Partnering for real learning. Corwin Press.

Qurtubi, M., Sari, D. P., & Rahman, A. (2024). Integrasi penguatan pendidikan karakter dalam pembelajaran berbasis literasi digital pada peserta didik sekolah dasar. Jurnal Pendidikan Karakter, 12(1), 78-92.

Ribble, M. (2015). Digital citizenship in action: A technology integration approach. International Society for Technology in Education.

Rogers, E. M. (2003). Diffusion of innovations (5th ed.). Free Press.

Schumacher, E. F. (1973). Small is beautiful: A study of economics as if people mattered. Blond & Briggs.

Senge, P. M. (1990). The fifth discipline: The art and practice of the learning organization. Doubleday.

Spradley, J. P. (2016). Participant observation. Waveland Press.

Suwarsito, S., Pratama, R., & Wijaya, K. (2023). Literasi digital sebagai jalan penguatan pendidikan karakter di era Society 5.0. Jurnal Literasi Digital, 8(3), 156-171.

Tim Peneliti IRJE. (2024). Integrasi teknologi dalam pendidikan: Tantangan dan peluang pembelajaran digital di sekolah dasar. Indonesian Research Journal on Education, 4(2), 234-249.

Ubaidah, N. (2022). Digital literacy development in elementary education: A systematic review. Journal of Digital Learning, 7(4), 112-128.

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. Cambridge University Press.