

Analysis of Teachers' Perceptions of Digital Education Policy in Civics Education Learning

Ressi Kartika Dewi

Universitas Sebelas Maret

Jl. Ir. Sutami No.36, Jebres, Kec. Jebres, Kota Surakarta, Jawa Tengah

E-mail: ressi_23@student.uns.ac.id*

Ravik Karsidi

Universitas Sebelas Maret

Jl. Ir. Sutami No.36, Jebres, Kec. Jebres, Kota Surakarta, Jawa Tengah

E-mail: ravikkarsidi@yahoo.com

Received : 21/05/2025

Accepted : 28/08/2025

Revised : 20/08/2025

Publication : 31/08/2025

DOI: <https://doi.org/10.32332/vcxj7641>

Abstract

In the context of digital development, digital education policy requires synergy between individuals and institutions. The Indonesian government has implemented various policies to promote digital transformation within the education system, aiming to improve the quality of civics education, expand access to education, and foster the development of good citizenship. Teachers' perceptions of digital education policy are a key factor in determining the effectiveness of policy implementation in the classroom. This study aims to analyze teachers' perceptions of digital education policy in civics education learning, using a qualitative descriptive approach with a case study method. Data were collected through interviews and a teacher perception questionnaire adapted from cognitive theory. The validity of the data was tested using technique and source triangulation. The findings show that teachers generally have a positive view of digital education policy. They believe that internal student factors and the diversity of digital media influence learning success. However, 50% of teachers have not yet implemented digital media across all civics education materials. This indicates a need for greater

convergence between education policy development and the practice of technology-based civics education learning in the classroom.

Keywords: education policy, digital technology, civics education

A. Introduction

Education, as one of the most crucial elements of a nation, plays a significant role in its progress. Civics education is a subject taught across the globe, as every country needs citizens who are competent, knowledgeable, and equipped with skills relevant to the changing times in order to compete globally. Moreover, civics education plays an important role in shaping attitudes and skills to manage conflict constructively (Hidayah et al., 2023). Thus, the realization of good citizenship is reflected in civics education learning.

In Indonesia, civics education serves as an effort to prepare intelligent, democratic, and character-driven citizens amidst the complexity of the nation's diversity. On the other hand, one of the core issues in civics education is the challenge of maintaining national identity in the face of rapid digitalization (Juwandi, 2020). This situation presents both a challenge and an opportunity to internalize national values through media-based digital learning. It is noted that adaptive and technology-oriented education management strategies are key to improving the quality of education (Arum, 2023).

The Indonesian government has introduced various policies to promote digital transformation within the education system, aiming to enhance the quality of civics education, expand access to education, and foster the development of good citizenship. One such policy is the Minister of Education, Culture, Research, and Technology Regulation No. 56 of 2022 (Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Nomor 56 Tahun 2022), which accommodates the use of digital technology in learning, including civics education. This demonstrates the government's full support for integrating digital technology into civics education learning. As found by previous research, digital technology integration in civics education enriches students' experiences, enhances their understanding of citizenship, and effectively instills civic values (Putra et al., 2024). However, teachers also face several challenges in civics education, such as students' negative attitudes resulting from the adverse effects of technology use (Gustifal et al., 2024). In addition, teachers are expected to cultivate the Pancasila student profile, which not only focuses on the classroom learning process but also emphasizes its application in everyday life. Therefore, teachers should integrate civics education concepts that promote a positive digital culture amid the expanding influence of digitalization across all aspects of life. As expressed by (Pangrazio & Sefton-green, 2021) that the emergence of the development of the internet provides opportunities to provide a new form of citizenship to digital

citizenship as a bridge of the digital divide, issues of access, inclusion, and rights and freedom of communication. This is what forms digital citizenship, although it sounds simple, digital citizenship becomes a personal responsibility in individuals in following new forms of participation.

In this era of digital development, conflict resolution requires synergy between individuals and institutions. Collaboration among the government, NGOs, communities, the private sector, and especially education practitioners is essential to foster national integration and cultivate good citizens in an increasingly connected digital age. In line with this, it was found that school principals can manage civics education learning in the digital era by building effective synergy within schools to ensure optimal services (Fathurrahman et al., 2022). This form of management involves collaboration between teachers and the school's information technology team to develop a system that supports the implementation of continuous professional development. These findings provide a concrete example of how human and technological resources can be synergized to improve the quality of education. By strengthening collaboration among various stakeholders—including the government, schools, families, and communities—and using technology wisely and ethically, the values of Pancasila can be reinforced and applied effectively in the digital era (Bahari et al., 2024).

While there has been extensive research on the use of digital media in civics education learning, most studies have focused only on its impact on student learning outcomes (Hasibuan, 2023; Masriah & Setiawati, 2023; Purnama et al., 2024; Riska & Sarwono, 2024). Few have explored teachers' perceptions of digital education policies. In fact, such perceptions are fundamental for all stakeholders to assess whether existing digital education policies are effective in practice. This gap also highlights the novelty of the present study.

Although digital technology integration can enhance the quality of civics education, it was found that limited digital facilities and lack of training are the main obstacles in implementing digital-based civics education (Rangkoly & Situru, 2024). This suggests that despite the support of government digital education policies, teachers remain the key determining factor in whether civics education is truly integrated with digital technology. Moreover, teachers' perceptions of digital education policy are critical in determining the effectiveness of its implementation. A positive perception tends to foster openness, adaptability, and creativity in integrating technology into learning. In contrast, a negative perception may hinder innovation or even lead to resistance to change.

In line with the above, education practitioners such as teachers often face challenges in translating digital education policies into classroom practices that match local contexts and students' needs. This research emphasizes the pedagogical dimension that explores the perception of teachers as agents in adapting digital

education policies into effective learning strategies. Teachers' perceptions of digital education policy are therefore an important aspect to analyze, as these perceptions influence how teachers respond to, accept, and implement such policies in learning processes. Analyzing teachers' perceptions of education policy in civics education learning is essential to understand how well these policies are understood, accepted, and implemented. As such, the results of this study are expected to provide a realistic overview of the situation on the ground and serve as valuable input for policymakers to be more responsive to teachers' needs and actual classroom conditions.

B. Research Methods

This study is a qualitative descriptive study using a case study method. Qualitative research is an approach conducted to understand a phenomenon in a deep and holistic manner using non-numerical data that focuses on meaning, subjective experiences, and the social context of the subjects being studied (Sugiyono, 2021). Meanwhile, the case study method is used to gain an in-depth understanding of a particular condition by connecting various types of evidence such as documents, interviews, observations, or other data collection tools (Yin, 2009).

The participants in this study were all teachers at SDN 02 Gondangmanis, Karangpandan District, Karanganyar Regency, Central Java. The use of a single school was based on the rationale that the researcher could focus on understanding the dynamics, perceptions, and practices that occurred holistically at the school. Data collection techniques in this study included interviews and questionnaires. The teacher perception questionnaire was adapted from cognitive theory, which views that teachers' perceptions are shaped by thought processes and prior experiences (Nisa et al., 2023). The indicators of teacher perception adapted from this theory include teachers' views on digital education policies, their belief in the teacher's role in student success, and personal experiences that influence instructional decisions. In addition, interview guidelines were used to explore teachers' assessments of the curriculum and digital education policies. This approach aimed at providing the researcher with comprehensive data on teachers' perceptions of digital education policies in civics education learning.

Once all data were collected, the researcher verified the validity of the data through triangulation of techniques and sources. Technique triangulation was conducted by combining the results of interviews and questionnaires to gain a more comprehensive understanding of the variables studied. Source triangulation was carried out by comparing research data obtained from various sources, namely, all participating teachers.

C. Results and Discussion

Based on the findings, the researcher outlined five sub-findings of the study, as follows:

1. Teachers' views on digital education policies

The results of the survey indicated that 66.7% of the teachers were aware of the government's digital-based education policy. In fact, 33.3% strongly agreed with it. These teachers also believed that digital-based education policies are relevant to the current learning needs. They also felt that their school supports the use of digital technology in learning. In line with this, it was found that although teachers could better understand national education policies and follow directives from the central government, they had not yet demonstrated sufficient digital readiness (Anita & Astuti, 2022). Previous research noted that digital skills tend to be more prevalent among younger teachers (Nurliani et al., 2023). Furthermore, it was stated that a positive perception of digital media can support the achievement of curriculum goals (Nurliani et al., 2023). The findings of this study, which show that all teachers at SDN 02 Gondangmanis understand digital-based education policies, imply the need for convergence between the development of education policy and the implementation of digital technology-based learning practices in classrooms.

The positive perception of digital education policies found in this study can serve as a gateway to successfully implementing the current curriculum, known as the Merdeka Curriculum. Technology integration in education, especially at the elementary school level, is a crucial topic for improving learning quality and enriching students' learning experiences (Wahyudi & Jatun, 2022). In this regard, there is a need to prepare digital learning infrastructure and facilities to support effective teaching and learning between teachers and students (Samsudi & Hosaini, 2020). Research shows that the use of digital technology resources can significantly improve the overall quality of education (Hasanbasri et al., 2023). Furthermore, collaboration with various stakeholders is key to ensuring the curriculum remains relevant to technological advancements (Hasanbasri et al., 2023). Therefore, the success of digital technology integration in learning requires joint collaboration and commitment to create an innovative and responsive learning environment that meets the needs of the times.

2. Teachers' beliefs in the role of digital media

The results of the questionnaire regarding teachers' beliefs in the role of digital media in student success are divided into five aspects, as follows:

Table 1. Teachers' beliefs in the role of digital media in student success

No.	Aspect	Percentage
1	Teachers believe that student success results from the digital media interventions provided by teachers	33.3% strongly agree 50% agree 16.7% disagree
2	Teachers believe that student success strongly depends on the variety of digital media used by teachers	33.3% strongly agree 33.3% agree 33.3% disagree
3	Teachers believe digital media can help students explore their full potential	16.7% strongly agree 66.7% agree 16.7% disagree
4	Teachers believe digital media can influence a conducive learning environment	33.3% strongly agree 66.7% agree
5	Teachers believe digital media plays a significant role in shaping students' future	33.3% strongly agree 33.3% agree 33.3% disagree

Table 1 shows that 50% of teachers agreed and 33.3% strongly agreed that student success results from digital media interventions provided by teachers. However, 16.7% of teachers disagreed with this statement. Interview results revealed that teachers also believe student success is influenced by internal student factors. As previously found, psychological factors significantly impact student academic achievement (Susanto et al., 2024). In addition, various factors such as the teaching-learning process, teacher-student interaction, technology support, and parental involvement all contribute to student success. Other studies also mention that intrinsic motivation, such as interest and enjoyment in the subject, has been proven to significantly enhance student engagement and learning outcomes (Burke et al., 2024).

In terms of belief that student success depends on the variety of digital media, the responses were evenly distributed: 33.3% strongly agreed, 33.3% agreed, and 33.3% disagreed. Interviews with those who strongly agreed and agreed indicated that they believe digital media enriches learning in terms of content, interaction, and digital literacy. Conversely, teachers who disagreed believed that using various digital media requires more extensive planning and instead preferred using concrete media or varying their teaching models alone. According to previous research, digital teaching skills involve not only the use of technology but also broader aspects such as instructional practices, curriculum demands, and beliefs about required digital skills (Cabellos et al., 2024). Therefore, a teacher's digital competence can positively shape their attitudes and intentions to integrate digital media into their teaching.

Most teachers—16.7% strongly agreed and 66.7% agreed—that digital media can help students discover their full potential. However, 16.7% still disagreed. Interviews revealed that some teachers believed discovering a student's potential is better achieved through direct and in-depth teacher-student interaction rather than through digital tools alone. As previously

found, classroom engagement in interactive activities does not seem to be strongly affected by the presence or absence of technology. The use of technology can support higher-quality engagement but only to a certain extent (Wekerle et al., 2022). The use of technology supports student engagement in higher-quality learning activities, although only to a certain extent. Nevertheless, all teachers agreed that the use of digital media contributes to creating a conducive learning environment. It was explained that teachers must be able to connect digital technology knowledge with pedagogical knowledge (effective teaching strategies) and content knowledge (Suárez & Colmenero, 2024). In addition, the learning environment has a significant and positive effect on teacher performance (Mulang, 2021). Furthermore, it was stated that teachers need sources of inspiration to motivate themselves in facing work dynamics that demand improved teaching performance (Mulang, 2021). Therefore, teachers' pedagogical skills are influenced by many factors, both internal and external, all of which directly and indirectly affect student achievement.

On the other hand, the percentages of teachers who strongly agreed, agreed, and disagreed with the statement that digital media plays a major role in shaping students' futures were equally distributed at 33.3%. Interview results indicated that teachers who strongly agreed and agreed believed that the continuous development of digital technology requires relevant life skills, and thus, digital media significantly influences students' futures. Meanwhile, teachers who disagreed believed that character building is the primary foundation for students' future success. In line with this, the ongoing advancement of information and communication technology has made the shift to technology-based teaching a necessity, requiring teachers to possess digital literacy, competencies, and basic digital skills (Rahimi & Mosalli, 2024).

3. Personal experiences influencing civics education instructional decisions

The survey results regarding teachers' personal experiences influencing their instructional decisions in civics education are presented in Table 2 below.

Table 2. Teachers' experiences influencing their civics education instructional decisions

No.	Aspect	Percentage
1	The teacher has implemented digital media for all civics education material	33.3% strongly agree 16.7% agree 50% disagree
2	The teacher has implemented digital media for 50% of the civics education material	83.3% agree 16.7% disagree
3	The teacher has implemented digital media for 30% of the civics education material	50% agree 50% disagree
4	The teacher has implemented digital media for 10% of the civics education material	66.7% agree 33.3% disagree

5	The teacher has never implemented digital media in civics education	66.7% disagree 33.3% strongly disagree
6	The teacher believes the current curriculum does not emphasize digital media	83.3% disagree 16.7% strongly disagree

Table 2 shows that 50% of teachers have not implemented digital media in all civics education materials. However, 83.3% of them reported using digital media for 50% of the civics education content. Meanwhile, the number of teachers who had used digital media for 30% of the civics education content was evenly split, with 50% agreeing and 50% disagreeing. Additionally, 33.3% of teachers reported using digital media for only 10% of the civics education content. Despite this variation, none of the teachers agreed with the statement that they had never used digital media in civics education. They also believed that the current curriculum does emphasize digital media, including for civics education. The use of digital media in civics education learning is influenced by teachers' digital competence. Digital competence is considered a key factor in enhancing their professional development, improving students' learning processes, and enriching the overall educational experience (Fernández-Batanero et al., 2022). Regarding digital media use by teachers, seven components of digital competence were outlined as follows: technological competence, content knowledge, attitudes toward technology use, pedagogical competence, cultural awareness, critical thinking, and professional engagement—with technological and pedagogical competence being the most prominent (Skantz-Åberg et al., 2022). Furthermore, indicators of digital competence in elementary school teachers include technological literacy, data literacy, and human literacy (Ibda et al., 2023). Achieving quality education that aligns with the demands of the Industrial Revolution 4.0 requires teacher training in these competencies. In line with this, it was noted that educational leaders must prioritize teachers' digital competence to ensure professionally competent educators who can implement higher-quality educational practices (Lindfors et al., 2021).

D. Conclusion

Based on the above discussion, it can be concluded that elementary school teachers at SDN 2 Gondangmanis have a positive view of the government's digital education policy. This positive perception indicates that the school supports the integration of digital technology in classroom instruction. The second aspect of teacher perception—belief in the role of digital media—shows that student learning success is influenced by various factors, such as internal factors within the students themselves and the diversity of digital media used in the classroom. Both factors are considered to have a significant impact on student learning outcomes. The third aspect, namely personal experience influencing civics education instructional decisions, indicates that 50% of teachers have not implemented digital media in all

civics education materials. According to them, the use of digital media requires adequate digital skills or competence, which directly affects teachers' instructional decisions.

These three aspects of teacher perception regarding digital education policy imply that positive teacher perceptions reflect readiness and support for digital transformation. This forms a strong foundation for the government and education authorities to accelerate the comprehensive implementation of digital education policies, particularly in optimizing teachers' digital competence. This competence serves as a key reference for how digital education policies can be effectively implemented in practice. On the other hand, this study is limited in scope, as it was conducted in only one elementary school. Therefore, the findings cannot be generalized to all teachers in Indonesia, especially those in frontier, outermost, and underdeveloped regions. Future studies are needed with broader and more geographically and demographically diverse samples.

E. References

- Anita, A., & Astuti, S. I. (2022). Digitalisasi Dan Ketimpangan Pendidikan: Studi Kasus Terhadap Guru Sekolah Dasar Di Kecamatan Baraka. *Jurnal Pendidikan Dan Kebudayaan*, 7(1), 1–12. <https://doi.org/10.24832/jpnk.v7i1.2509>
- Arum, D. M. (2023). Strategi Manajemen Pendidikan untuk Meningkatkan Kualitas Pendidikan di Era Digital. *JME: Jurnal Management Education*, 1(2), 65–74. <https://doi.org/10.59561/jme.v1i2.70>
- Bahari, I., Fisabilillah, Z. A., Ramadhani, A. N., Diandra, D., Syamsina, J. N., Hadian, S., & Furnamasari, Y. F. (2024). Pemanfaatan Teknologi untuk Implementasi Pendidikan Pancasila dalam Penguatan Nilai di Era Digital. *Lencana: Jurnal Inovasi Ilmu Pendidikan*, 2(3), 209–215. <https://doi.org/10.55606/lencana.v2i3.3772>
- Burke, C. M., Montross, L. P., & Dianova, V. G. (2024). Beyond the Classroom: An Analysis of Internal and External Factors Related to Students' Love of Learning and Educational Outcomes. *Data*, 9(6), 81. <https://doi.org/10.3390/data9060081>
- Cabellos, B., Siddiq, F., & Scherer, R. (2024). The moderating role of school facilitating conditions and attitudes towards ICT on teachers' ICT use and emphasis on developing students' digital skills. *Computers in Human Behaviour*, 150, 107994.
- Fathurrrahman, Asmoni, & Al Faruq, M. S. (2022). Servant Leadership dalam Program Pengembangan Keprofesionalan Berkelanjutan Guru Pendidikan Pancasila dan Kewarganegaraan di Era Digital. *Ilmu Pendidikan : Jurnal Kajian Teori Dan Praktik Kependidikan*, 7(2), 51–60.

<https://doi.org/10.17977/um027v7i22022p51-60>

- Fernández-Batanero, J. M., Montenegro-Rueda, M., Fernández-Cerero, J., & García-Martínez, I. (2022). Digital competences for teacher professional development. Systematic review. *European Journal of Teacher Education*, 45(4), 513–531. <https://doi.org/10.1080/02619768.2020.1827389>
- Gustifal, R., Septina, W. W., Adrias, A., & Alwi, N. A. (2024). Tantangan dan Strategi Implementasi Mata Pelajaran PPKn di Era Digital. *JPBB: Jurnal Pendidikan, Bahasa Dan Budaya*, 3(3), 91–100. <https://doi.org/10.55606/jpbb.v3i3.3849>
- Hasanbasri, H., Algusyairi, P., Nurhayuni, N., & Mudasir, M. (2023). Sumber Daya Teknologi Terhadap Pelaksanaan Kurikulum di Era Digital. *AL-MIKRAJ Jurnal Studi Islam Dan Humaniora*, 4(1), 874–888. <https://doi.org/10.37680/almikraj.v4i1.4181>
- Hasibuan, M. (2023). Penggunaan Media Digital Games Based Learning (DGBL) Untuk Meningkatkan Hasil Belajar Ppkn Pada Siswa Kelas XII BDP 1 Di SMK Negeri 1 Dumai Tahun 2022. *Journal Of Social Science Research*, 3(1), 79–97.
- Hidayah, Y., Ulfah, N., & Trihastuti, M. (2023). Memperkuat Integrasi Nasional Di Era Digital: Penguatan Resolusi Konflik Di Era Digital Sebagai Perwujudan Warga Negara Yang Baik. *Antroposen: Journal of Social Studies and Humaniora*, 2(2), 105–115. <https://doi.org/10.33830/antroposen.v2i2.5483>
- Ibda, H., Syamsi, I., & Rukiyati, R. (2023). Professional elementary teachers in the digital era: A systematic literature review. *International Journal of Evaluation and Research in Education*, 12(1), 459–467. <https://doi.org/10.11591/ijere.v12i1.23565>
- Juwandi, R. (2020). Penguatan Pendidikan Pancasila dan Kewarganegaraan Berbasis Pembelajaran Daring di Era Digital 4.0. *Prosiding Seminar Nasional Pendidikan FKIP Universitas Sultan Ageng Tirtayasa*, 03(1), 448–451.
- Lindfors, M., Pettersson, F., & Olofsson, A. D. (2021). Conditions for professional digital competence: the teacher educators' view. *Education Inquiry*, 12(4), 390–409. <https://doi.org/10.1080/20004508.2021.1890936>
- Masriah, I., & Setiawati, T. (2023). The Influence of Smartphone Use on Students Learning Outcomes in PPKn Subjects at SMPN 21 Depok West Java Indonesia. *International Journal of Social Science Humanity & Management Research*, 2(05), 255–265. <https://doi.org/10.58806/ijsshrm.2023.v2i5n01>
- Mulang, H. (2021). The Effect of Competences, Work Motivation, Learning Environment on Human Resource Performance. *Golden Ratio of Human Resource Management*, 1(2), 84–93. <https://doi.org/10.52970/grhrm.v1i2.52>
- Nisa, A. H., Hasna, H., & Yarni, L. (2023). Persepsi. *Jurnal Multidisiplin Ilmu*, 2(4),

- 213–226. <https://koloni.or.id/index.php/koloni/article/view/568/541>
- Nurliani, Mayasari, A., Hildayati, Arusliadi, H., & Rahmattullah, M. (2023). Persepsi Guru dalam Pelaksanaan Kurikulum Merdeka Belajar Era Digital di SMA Negeri 4 Banjarmasin. *Seminar Nasional(PROSPEK II)*, 2(2), 142–148. <https://ojs.mahadewa.ac.id/index.php/prospek/article/view/2585/1928>
- Pangrazio, L., & Sefton-green, J. (2021). Digital Rights, Digital Citizenship and Digital Literacy: What ' s the Difference? *Journal of New Approaches in Educational Research*, 10(1), 15–27. <https://doi.org/10.7821/naer.2021.1.616>
- Purnama, M. M., Adha, M. M., Perdana, R., & Maulina, D. (2024). Development of Technological Learning Media to Increase Students ' Civic Knowledge. *IJORER : International Journal of Recent Educational Research*, 5(5), 1121–1133.
- Putra, J. E., Sobandi, A., & Aisah, A. (2024). The urgency of digital technology in education: a systematic literature review. *Jurnal EDUCATIO: Jurnal Pendidikan Indonesia*, 10(1), 224. <https://doi.org/10.29210/1202423960>
- Rahimi, A. R., & Mosalli, Z. (2024). The role of twenty-first century digital competence in shaping pre-service teacher language teachers' twenty-first century digital skills: The Partial Least Square Modeling Approach (PLS-SEM). *Journal of Computers in Education*, 14(2), 1–19. <https://doi.org/https://doi.org/10.1007/s40692-023-00307-6> The
- Rangkoly, S. A., & Situru, D. P. (2024). Peran Guru PPKn Dalam Mengintegrasikan Isu Hak Asasi Manusia Pada Pembelajaran di Era Digital di SD I.S Kijne Wadio. *Jurnal Cakrawala Ilmiah*, 4(4), 355–360.
- Riska, M., & Sarwono, S. R. (2024). Istanbul Journal of Social Sciences and Humanities. *Istanbul Journal of Social Sciences and Humanities*, 2(1), 65–73.
- Samsudi, W., & Hosaini, H. (2020). Kebijakan Sekolah dalam Mengaplikasikan Pembelajaran Berbasis Digital di Era Industri 4.0. *Edukais : Jurnal Pemikiran Keislaman*, 4(2), 120–125. <https://doi.org/10.36835/edukais.2020.4.2.120-125>
- Skantz-Åberg, E., Lantz-Andersson, A., Lundin, M., & Williams, P. (2022). Teachers' professional digital competence: an overview of conceptualisations in the literature. *Cogent Education*, 9(1), 2063224. <https://doi.org/10.1080/2331186X.2022.2063224>
- Suárez, A. S., & Colmenero, M. R. (2024). The challenge of incorporating digital skills in the classroom: perceptions and attitudes of Spanish Salesian teachers. *International Studies in Catholic Education*, 16(1), 41–56. <https://doi.org/10.1080/19422539.2020.1858639>
- Sugiyono. (2021). *Metode Penelitian Kualitatif*. Alfabeta.
- Susanto, R., Nasution, E. S., Sanulita, H., & Lumbantoruan, J. H. (2024). The Impact

of Student Psychological Factors on Self-Regulation in Learning in Primary Schools. *Mimbar Sekolah Dasar*, 11(1), 150–162. <https://doi.org/10.53400/mimbar-sd.v11i1.68907>

Wahyudi, N. G., & Jatun. (2022). Integrasi Teknologi dalam Pendidikan: Tantangan dan Peluang Pembelajaran Digital di Sekolah Dasar. *Indonesian Research Journal on Education*, 2(3), 1030–1037.

Wekerle, C., Daumiller, M., & Kollar, I. (2022). Using digital technology to promote higher education learning: The importance of different learning activities and their relations to learning outcomes. *Journal of Research on Technology in Education*, 54(1), 1–17. <https://doi.org/10.1080/15391523.2020.1799455>

Yin, R. K. (2009). *Case Study Research Design and Methods Fourth Edition*. Sage Publications.