

## **EMPOWERING EDUCATORS: A COMMUNITY SERVICE PROGRAM FOR DIGITAL LEARNING TOOLS TRAINING AT SDN SAMBIROTO 03 SEMARANG**

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**Abstract:** In the rapidly evolving digital era, the integration of technology in education has become imperative. However, many primary schools, including SDN Sambiroto 03 Semarang, face challenges in utilizing digital tools for effective teaching. This community service program aims to empower educators at SDN Sambiroto 03 through comprehensive training on digital learning tools. The purpose of this initiative is to enhance the teachers' ability to create interactive, creative, and effective learning experiences for students. The program involves a series of workshops and hands-on training sessions designed to familiarize teachers with various digital applications and their implementation in the classroom. The method includes pre-training assessments, interactive workshops, and post-training evaluations to measure the impact on teaching practices and student engagement. The results indicate a significant improvement in teachers' proficiency with digital tools and a noticeable increase in student participation and enthusiasm for learning. This program not only bridges the technology gap but also sets a foundation for continuous educational development in the digital age.

**Key words:** Digital Learning, Teacher Training, Community Service, Educational Technology, Student Engagement.

### **INTRODUCTION**

The integration of technology in education is no longer a novelty but a necessity, especially in the digital age where information and communication technologies (ICT) play a pivotal role in all sectors, including education (Bialyk & Honcharuk, 2023; Weber, 2021). However, the adoption of digital learning tools in primary education, particularly in under-resourced schools like SDN Sambiroto 03 Semarang, remains a challenge. Teachers often lack the training and confidence needed to effectively use these tools, which can lead to suboptimal learning experiences for students. This community service program was designed to address this gap by providing comprehensive training for educators, thereby empowering them to leverage digital technologies to enhance teaching and learning (Chaipidech, 2022; KASIRYE, 2023).

Despite the recognized importance of digital literacy and the availability of various educational technologies, there remains a significant gap in the practical application of these tools in classroom settings. Many studies have focused on the potential benefits of digital learning tools, but there is limited research on the actual training programs that prepare teachers to use these technologies effectively, especially in primary schools in developing regions (Akman, 2018; Alotumi, 2023; Smirnova, 2020). This study aims to fill this gap by examining the outcomes of a targeted training program for teachers at SDN Sambiroto 03 Semarang.

The primary purpose of this study is to evaluate the effectiveness of a community service program designed to train teachers at SDN Sambiroto 03 Semarang in the use of digital learning tools. The primary focus of the community service program at SDN Sambiroto 03 Semarang is to enhance teachers' proficiency in using digital learning tools through practical training sessions (ORAN, 2023; Supu & Herlina, 2023). The program aims to address several objectives aimed at improving educational practices:

Firstly, the program begins by assessing the initial digital literacy levels of participating teachers. This assessment serves as a baseline to understand the starting point of each educator in terms of their familiarity and competence with digital technologies.

Secondly, the program provides hands-on training sessions designed to equip teachers with practical skills in integrating digital tools into their teaching methodologies. These sessions are structured to be interactive and tailored to the specific needs and contexts of the educators at SDN Sambiroto 03 Semarang.

The third objective involves measuring the impact of the training on teachers' proficiency and confidence in utilizing digital technologies. This assessment is crucial in evaluating how effectively the program enhances the educators' capabilities to leverage digital tools for instructional purposes.

Lastly, the community service program evaluates the resultant effects on student engagement and learning outcomes. By incorporating digital tools effectively into teaching practices, the program seeks to observe improvements in student participation, motivation, and overall academic performance.

To address these objectives, the program poses several key questions:

What are the current levels of digital literacy among teachers at SDN Sambiroto 03 Semarang?

How effective is the community service training program in improving teachers' proficiency with digital learning tools?

What impact does the use of digital tools have on student engagement and learning outcomes at SDN Sambiroto 03 Semarang?

These questions guide the assessment and evaluation process, ensuring that the community service program not only enhances teachers' digital skills but also contributes positively to student learning experiences within the school environment.

This study holds significant implications for educational practices in primary schools, particularly in under-resourced areas. By demonstrating the positive effects of targeted training programs, this research can inform future initiatives aimed at bridging the digital divide in education. The findings can serve as a model for other schools facing similar challenges and highlight the importance of community service programs in driving educational development.

The literature on digital learning tools underscores their potential to transform educational experiences by fostering interactive, engaging, and personalized learning environments (Nurtanto et al., 2020; Pamuk, 2022). However, successful integration of these tools depends heavily on the preparedness and attitudes of educators (Haitembu, 2023; Retelj, 2022a, 2022b). Previous studies have shown that teachers' confidence and proficiency with

technology significantly influence their willingness to adopt new tools (Cosby et al., 2023; Isaias et al., 2020; Rabiman et al., 2020). Moreover, hands-on training and continuous professional development are crucial for overcoming barriers to technology integration (Hew & Brush, 2007). This study builds on these findings by providing empirical evidence on the impact of a structured training program in a primary school context.

By addressing these components, the introduction sets the stage for understanding the necessity and impact of empowering educators through targeted digital training programs, particularly in settings like SDN Sambiroto 03 Semarang

## **RESEARCH METHOD**

The community service program at SDN Sambiroto 03 Semarang employs a mixed-methods approach to assess its effectiveness in enhancing teachers' proficiency with digital learning tools. This approach combines quantitative and qualitative methods to gain comprehensive insights into participant experiences. Quantitatively, the program utilizes pre- and post-training assessments, such as the Digital Proficiency Assessment Test (DPAT), to measure digital literacy levels before and after training. Qualitatively, observations, interviews, and feedback surveys are conducted to further understand participant engagement and perceptions.

Participants in the program include 11 individuals comprising teachers and staff members selected based on their roles and willingness to participate. Instruments used include the DPAT for proficiency assessment, an observation checklist to monitor interaction with digital tools during training, an interview guide for in-depth participant experiences, and a feedback survey to gather suggestions for improvement.

Data collection proceeded through phases: initial assessments, training sessions over four weeks, ongoing observations, and a final round of assessments and interviews post-training. Data analysis involved both quantitative techniques, using descriptive and inferential statistics on DPAT results, and qualitative methods, thematically analyzing observations, interviews, and survey responses. This holistic approach ensures a thorough evaluation of the program's impact on enhancing educators' capabilities in digital learning tools at SDN Sambiroto 03 Semarang

## **RESULTS AND DISCUSSION**

The evaluation of the community service program's effectiveness involved a comprehensive approach that included pre- and post-training assessments, ongoing observations, structured interviews, and detailed feedback surveys. These methods collectively provided a rich dataset from which to analyze various aspects of the program's impact.

Through the pre-training assessments, initial levels of digital proficiency among participating teachers were established, offering a baseline against which improvements could be measured. During the training sessions, observations were conducted to document how teachers engaged with the new digital tools and techniques introduced. These observations provided qualitative insights into the participants' learning processes and their application of newfound skills.

Additionally, structured interviews were employed to gather in-depth perspectives on the training's effectiveness from the teachers themselves. These interviews explored not only changes in digital proficiency but also the teachers' perceptions of how these enhancements translated into their instructional practices and interactions with students.

Furthermore, feedback surveys distributed at the conclusion of the program allowed all participants to provide their perspectives on the overall training experience. Insights gleaned from these surveys highlighted areas of strength and areas for improvement in the program's design and delivery.

Collectively, these evaluation methods provided a robust understanding of how the community service program impacted teachers' digital proficiency, engagement with the training process, and subsequently, the effects on student engagement and learning outcomes within SDN Sambiroto 03 Semarang.

Table 1: Pre- and Post-Training Digital Proficiency Assessment Scores

Participant	Pre-Training Score	Post-Training Score	Improvement (%)
Teacher 1	40	75	87.5
Teacher 2	35	70	100
Teacher 3	50	80	60
Teacher 4	45	78	73.3
Teacher 5	38	72	89.5
Teacher 6	42	74	76.2
Teacher 7	47	79	68.1
Teacher 8	39	73	87.2
Teacher 9	44	77	75
Teacher 10	41	76	85.4
Staff 1	36	71	97.2

**Table 1** shows a significant improvement in the digital proficiency scores of all participants, with the average improvement percentage being approximately 80%. This indicates the effectiveness of the training program in enhancing the digital skills of the teachers and staff at SDN Sambiroto 03 Semarang.

Furthermore, Table 1 illustrates a significant improvement in digital proficiency scores among participants following the training program at SDN Sambiroto 03 Semarang. Across the board, participants, including both teachers and staff, showed impressive gains in their digital skills, with improvement percentages ranging from 60% to 100%. The average improvement of approximately 80% highlights the program's efficacy in enhancing participants' abilities to utilize digital learning tools effectively.

These results indicate that the training sessions successfully addressed the diverse needs of the participants, leading to substantial advancements in their digital literacy. The findings also suggest a positive impact on teaching practices and student engagement within the school. Moving forward, these insights can inform the refinement of future community

service programs aimed at bolstering digital proficiency among educators, potentially furthering educational outcomes at SDN Sambiroto 03 Semarang and similar educational institutions

Table 2: Participants' Engagement and Interaction Scores (Observation Checklist)

Training Session	Average Engagement Score	Average Interaction Score
Session 1	3.5	3.2
Session 2	4.0	3.8
Session 3	4.3	4.0
Session 4	4.5	4.2

Table 2 presents a progression of average engagement and interaction scores across the four training sessions, reflecting participants' evolving behaviors and comfort levels with digital tools. The scores show a clear upward trend from Session 1 to Session 4, with engagement scores increasing from 3.5 to 4.5 and interaction scores rising from 3.2 to 4.2.

The rising engagement scores suggest that participants became increasingly involved and attentive during the training sessions, likely indicating growing confidence and interest in the material being taught. This trend is mirrored in the interaction scores, which highlight participants' enhanced ability to actively engage with and utilize the digital tools introduced in each session.

The observed improvements in both engagement and interaction scores underscore the effectiveness of the training program in fostering a supportive learning environment where participants not only learn new skills but also apply them actively. These findings suggest that the structured approach of the program, combined with hands-on learning opportunities, effectively encouraged participants to interact more dynamically with digital learning tools over the course of the sessions.

Moreover, the increasing scores across sessions indicate a positive adaptation to the training content and methods, potentially leading to sustained integration of digital tools into participants' teaching practices. This interpretation implies that ongoing support and reinforcement of these skills could further enhance participant engagement and ultimately contribute to improved educational outcomes within SDN Sambiroto 03 Semarang

Table 3: Feedback Survey Results

Question	Average Score (out of 5)
Overall satisfaction with the training	4.7
Usefulness of the digital tools	4.6
Confidence in using digital tools	4.5
Impact on teaching practices	4.4
Likelihood of recommending the training	4.8

Table 3 presents an overview of feedback survey results from participants, showcasing consistently high average scores across various aspects of the training program. Participants rated their overall satisfaction with the training at an average of 4.7 out of 5, indicating a high level of contentment with the program as a whole. Similarly, the usefulness of the digital tools received an average score of 4.6, suggesting that participants found the tools practical and beneficial for their teaching needs.

The survey also revealed that participants felt confident in their ability to use digital tools, with an average score of 4.5, indicating a significant improvement in their skills and comfort level with technology integration. Moreover, the training program was perceived to have a positive impact on teaching practices, as reflected in an average score of 4.4. This suggests that participants believed the program contributed effectively to enhancing their instructional strategies and student engagement.

Furthermore, the likelihood of recommending the training to others received a high average score of 4.8, indicating that participants were enthusiastic about sharing their positive experiences with colleagues and peers. These consistently positive ratings across all survey questions underscore the program's success in meeting participant expectations and fostering a supportive environment for professional development in digital learning tools at SDN Sambiroto 03 Semarang.

Table 4: Impact on Student Engagement (Post-Training Observations)

Indicator	Average Score (out of 5)
Student participation	4.3
Student enthusiasm	4.2
Use of digital tools by students	4.1
Teacher-student interaction	4.4

Table 4 illustrates the positive impact of integrating digital tools on student engagement, as observed after the training program. The average scores across indicators such as student participation (4.3), enthusiasm (4.2), use of digital tools by students (4.1), and teacher-student interaction (4.4) reflect significant improvements in classroom dynamics.

The high score for student participation suggests increased involvement in learning activities facilitated by digital tools, indicating a more active learning environment. Similarly, the rating for student enthusiasm implies heightened interest and motivation, potentially attributed to innovative teaching methods enabled by digital resources.

Moreover, the average score for the use of digital tools by students indicates effective adoption and utilization of technology in learning tasks, enhancing both engagement and learning outcomes. The strong rating for teacher-student interaction underscores improved communication and rapport fostered through the integration of digital tools into instructional practices.

Overall, these findings from Table 4 underscore the transformative impact of the training program on classroom dynamics and student engagement at SDN Sambiroto 03 Semarang. They highlight how effectively integrating digital tools can enhance educational experiences,

promoting active participation, enthusiasm, and meaningful interactions within the learning environment.

## **DISCUSSION**

The results indicate a significant improvement in the digital proficiency of the teachers and staff at SDN Sambiroto 03 Semarang, demonstrating the effectiveness of the community service training program. The observed increase in engagement and interaction scores during the training sessions suggests that participants became more adept and confident in using digital learning tools. This is further supported by the high satisfaction and confidence scores in the feedback surveys.

The positive impact on student engagement and participation highlights the potential benefits of integrating digital tools into the classroom. These findings align with previous research indicating that digital literacy and the effective use of technology can enhance teaching practices and student learning outcomes (Murat & Kukul, 2023; Pratiwi & Waluyo, 2023; K. M. B. Sales, 2020).

The feedback from the participants suggests that the training program was well-received and has had a meaningful impact on their teaching practices. The observed improvements in student engagement and participation also underscore the importance of providing teachers with the necessary skills and tools to create more interactive and engaging learning environments (Ludlow, 2022; Suing et al., 2023; Zalavra & Makri, 2022a).

These findings emphasize the crucial role of targeted training programs in bridging the digital divide in education, particularly in under-resourced schools. By empowering teachers with digital literacy skills, such programs can significantly enhance the quality of education and prepare students for the demands of the digital age (Custodio-Espinar & López-Hernández, 2023; D. Sales & Pinto, 2016; Syahrin et al., 2023). The positive outcomes of this community service program at SDN Sambiroto 03 Semarang can serve as a model for similar initiatives in other schools facing comparable challenges.

## **CONCLUSION**

The community service program aimed at training teachers and staff at SDN Sambiroto 03 Semarang in the use of digital learning tools has yielded positive outcomes, effectively addressing the research questions posed at the beginning of the study.

The pre-training assessments revealed that the teachers and staff had varying but generally low levels of digital literacy. This highlighted the need for comprehensive training to equip them with the necessary skills to integrate digital tools into their teaching practices (Hatlevik et al., 2023; Tzafilkou et al., 2023). The post-training assessments showed significant improvements in the digital proficiency scores of all participants, with an average improvement of approximately 80%. This demonstrates the effectiveness of the training program in enhancing the digital skills of the teachers and staff. Observations and feedback indicated a noticeable increase in student participation, enthusiasm, and overall classroom interaction post-training. This suggests that the integration of digital tools positively influences student engagement and learning outcomes.

The findings of this study have several important implications. The success of the training program underscores the importance of continuous professional development for teachers, particularly in the area of digital literacy (Sithole, 2023; Zalavra & Makri, 2022b). Schools should prioritize such training programs to ensure that educators are equipped to leverage technology effectively in their teaching. Educational policymakers should consider the positive impact of digital learning tools on student engagement and learning outcomes when formulating strategies for integrating technology into the curriculum. Investments in teacher training and digital infrastructure are crucial for the successful implementation of these strategies. The study highlights the role of community service programs in addressing educational challenges. Collaborative efforts between educational institutions and the community can lead to meaningful improvements in teaching and learning environments (Tomczyk, 2023).

While the study provides valuable insights, it also has some limitations. The study was conducted with a relatively small sample size of 11 participants. Larger-scale initiatives are needed to generalize the findings to a broader population. The training program was conducted over a relatively short period. Long-term programs are necessary to assess the sustained impact of digital learning tools on teaching practices and student outcomes. The study focused primarily on digital proficiency and engagement. Future community service programs could explore other aspects, such as the impact on academic performance and the integration of specific digital tools and resources (Chhetri et al., 2020).

To build on the findings of this study, future community service programs should consider the following. Conduct programs with larger and more diverse participant groups to validate and extend the findings of this initiative. Implement long-term programs to examine the sustained effects of digital learning tools on teaching practices and student outcomes. Explore the impact of specific digital tools and resources on various aspects of education, including academic performance, creativity, and critical thinking skills (Arasomwan & Mashiy, 2021). Compare the effectiveness of different types of digital training programs to identify best practices and optimal approaches for different educational settings.

By addressing these areas, future community service programs can further enhance our understanding of the role of digital tools in education and contribute to the development of effective strategies for their integration in schools.

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