



Empowering Smart School Transformation: Technology-Based Curriculum Development Guidance at SDN 1 Widoropayung

Ria Amelinda ¹, Abdul Rahim Karim ¹, Mehmood Mustafa ²

¹ Universitas Islam Negeri Palopo, Indonesia

² Superior University Lahore, Pakistan

Correspondence: amelinda23@gmail.com

Abstract : This mentoring program was designed to strengthen the capacity of SDN 1 Widoropayung in developing and implementing a technology-based curriculum to support the adoption of the Smart School concept. The program responded to the growing need for elementary schools to integrate digital technology into curriculum planning and learning practices while ensuring that technological innovation remains aligned with students' learning needs and the school's educational context. The mentoring process employed a participatory approach involving curriculum evaluation, needs identification, collaborative curriculum development, teacher training, and technical assistance. Data and program information were obtained through direct observation, focus group discussions, teacher participation during training, and documentation of curriculum development activities. The results indicated improvements in teachers' understanding and readiness to integrate technology into curriculum planning and learning activities. The school also demonstrated progress in developing a more systematic, collaborative, and context-responsive digital learning plan as part of its Smart School implementation. In addition, the mentoring process strengthened collaboration among teachers in designing creative and technology-supported learning innovations. These findings suggest that continual and collaborative mentoring might help primary schools improve their technological preparedness and adapt their curriculum to digital education. The programme lays the groundwork for elementary school Smart School sustainability.

Keywords : Technology-Based Curriculum, Smart School, Mentoring.

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INTRODUCTION

The rapid development of information and communication technology (ICT) has transformed various aspects of social life, including the organization and delivery of education. Digital transformation in education is no longer limited to the use of computers or online applications but increasingly involves changes in curriculum planning, instructional strategies, assessment, communication, and school management (Murawski et al., 2022; Mustoip et al., 2023). These developments require educational institutions to adapt their practices to prepare students with competencies relevant to the demands of the twenty-first century, including digital literacy, critical thinking, problem-solving, creativity, collaboration, and effective communication (Susetyarini et al., 2022; Stanikzai, 2023). Consequently, technology integration needs to be accompanied by curriculum development that provides a clear direction for the meaningful and sustainable use of digital resources in learning.

One educational transformation that responds to these developments is the implementation of the Smart School concept. A Smart School is not simply characterized by the availability of technological infrastructure but by the strategic integration of technology into various dimensions of educational practice (Leal Filho et al., 2022). This integration may include digital school administration, technology-supported learning, digital assessment, learning management platforms, and communication among schools, teachers, students, and parents (Stepanova et al., 2023). When appropriately implemented, the Smart School approach can create learning environments that are more interactive, flexible, efficient, and responsive to students' needs. However, technological infrastructure alone does not guarantee successful digital transformation (Butt et al., 2024; Plekhanov, Franke & Netland, 2023). The effectiveness of Smart School implementation depends substantially on the readiness of teachers, the capacity of schools to manage technological resources, and the availability of a curriculum that systematically accommodates technology-supported learning.

Curriculum development therefore becomes an important foundation for translating the Smart School concept into concrete educational practices. A technology-based curriculum should not position technology merely as an additional instructional tool but should integrate digital competencies, technology-supported learning activities, assessment strategies, and appropriate pedagogical practices into the broader learning process (Beck et al., 2023; Sudrajat et al., 2024). Such integration requires teachers to understand not only how to operate digital devices and applications but also how to select and utilize technology according to learning objectives, student characteristics, subject content, and the educational context of the school. In this regard, mentoring can serve as an important mechanism for assisting teachers in identifying curriculum needs, developing appropriate learning strategies, and translating technological possibilities into practical classroom activities.

This need is particularly relevant at the elementary education level, where technology integration must be carefully aligned with students' developmental

characteristics and fundamental learning needs (Gowen et al., 2023). Teachers at this level require adequate support to design learning experiences that are interactive and technology-supported without reducing the importance of direct interaction, contextual learning, and the development of students' foundational competencies. Therefore, curriculum development for a Smart School should emphasize a balanced integration of technology, pedagogy, curriculum content, and student needs rather than focusing solely on the adoption of digital tools.

SDN 1 Widoropayung represents an educational institution that has demonstrated commitment and initiative in utilizing technology to support learning. The school has begun incorporating digital devices and technology-supported activities into several learning practices. Nevertheless, initial observations identified several challenges that may hinder the systematic implementation of the Smart School concept. These challenges include differences in teachers' technological competencies, limitations in designing technology-supported learning activities, and the absence of sufficiently systematic curriculum references for integrating technology across learning processes. These conditions indicate that the school requires not only technological facilities but also structured assistance in aligning curriculum development with the school's digital transformation goals.

The existing potential and enthusiasm of the school provide an important foundation for strengthening its capacity toward Smart School implementation. However, the transition from the use of individual digital tools to a more integrated technology-based learning ecosystem requires collaborative curriculum planning and continuous teacher development (Kim, 2024; Wang et al., 2024). Without adequate guidance, technology utilization may remain fragmented and dependent on individual teacher initiatives (Gollopeni & Sylejmani, 2024; Myende et al., 2022; Stepanova et al., 2023). Mentoring is therefore needed to facilitate reflection on existing curriculum practices, identification of technological and pedagogical needs, development of appropriate curriculum strategies, and strengthening of teachers' capacity to implement technology-supported learning.

Based on these conditions, the mentoring program was designed to support SDN 1 Widoropayung in developing a technology-based curriculum aligned with the principles of Smart School implementation. The activity focuses on three interconnected areas: identifying the school's curriculum readiness and existing gaps, developing strategies for integrating technology into curriculum and learning practices, and strengthening teachers' capacity to design and implement technology-supported learning. The mentoring process combines curriculum evaluation, needs identification, collaborative discussion, teacher training, and technical assistance to ensure that curriculum development is connected to actual classroom needs.

The program is expected to contribute to the development of a more systematic and context-responsive technology-based curriculum while strengthening teachers' readiness to utilize technology pedagogically. At the institutional level, the resulting curriculum

framework can provide a foundation for the school's continued Smart School development. At the teacher level, the program is expected to strengthen digital literacy and pedagogical capacity in designing innovative learning activities. For students, the integration of technology into curriculum and instruction is expected to provide more interactive, relevant, and engaging learning experiences. More broadly, the experience of SDN 1 Widoropayung can provide practical insights into how elementary schools can gradually strengthen technology-based curriculum practices through collaborative mentoring and context-sensitive digital transformation.

METHOD

The mentoring program at SDN 1 Widoropayung was implemented using a participatory, contextual, and collaborative approach involving the principal, teachers, curriculum coordinators, and school support staff as active partners throughout the program. The approach was selected to ensure that technology-based curriculum development was grounded in the actual conditions, needs, and capacities of the school. Rather than positioning teachers merely as recipients of training, the program involved them directly in identifying curriculum challenges, developing learning plans, practicing the use of digital platforms, and evaluating the applicability of the proposed strategies. The activities were conducted over two days and consisted of needs assessment and preparation, training and hands-on mentoring, implementation simulation, monitoring and evaluation, and joint reflection and follow-up planning.

The initial stage focused on identifying the school's needs and readiness for technology-based curriculum development. A preliminary review was conducted of relevant school documents, including the school vision and mission, curriculum documents, learning plans, organizational arrangements, and existing policies related to technology utilization. This document review was followed by a field visit involving semi-structured interviews with the principal, teachers, and school operators; direct observation of the learning environment and available technological infrastructure; and focus group discussions with teachers and the curriculum development team. The assessment indicated several important conditions, including the limited integration of technology into existing curriculum planning, differences in teachers' digital competencies, the availability of computers or laptops and internet access that had not yet been optimally utilized, the absence of specific guidelines or standard operating procedures for technology-based curriculum development, and limited opportunities for teachers to receive training in digital literacy and technology-supported learning design. These findings became the basis for determining the mentoring materials, learning strategies, and expected outcomes.

Based on the needs assessment, the mentoring materials and activities were developed to address the identified gaps progressively. The first day focused on strengthening teachers' understanding of the Smart School concept and its implications for elementary school curriculum development. Participants were introduced to principles of

technology-based curriculum integration and were guided to examine the alignment of curriculum components, including learning outcomes, learning objectives, learning sequences, and lesson plans, with technology-supported learning. Teachers subsequently practiced developing digital-based lesson plans using relevant devices and platforms. The second day emphasized the application of technology in classroom learning through digital learning simulations. Teachers practiced the use of Google Classroom for digital classroom management, Wordwall and Canva Edu for interactive learning media, and Liveworksheets and Google Forms for exercises and digital assessment. The practical sessions were accompanied by demonstrations, case studies, group discussions, individual assistance, and direct feedback to ensure that teachers could connect the use of digital tools with curriculum objectives and classroom needs.

The mentoring process also included the development of institutional support for sustainable technology integration. Teachers and the school management team were guided to formulate initial standard operating procedures and school action plans related to technology-based curriculum implementation. These activities were intended to move technology utilization beyond individual teacher initiatives toward a more systematic school-level practice. The participants collaboratively identified follow-up activities, including the development of digital learning materials, internal teacher development through the school's professional learning forum, periodic implementation of technology-supported learning, and the designation of personnel responsible for coordinating educational technology. This collaborative process enabled the school to formulate practical steps for continuing curriculum digitalization after the completion of the mentoring activities.

Monitoring and evaluation were conducted throughout and at the end of the program. Process monitoring employed participatory observation to assess teacher attendance, engagement in discussions, ability to operate the selected digital platforms, understanding of technology-based curriculum principles, and competence in developing technology-supported learning plans. Technical constraints encountered during implementation, such as internet disruptions, difficulties accessing accounts, and teachers' limited familiarity with advanced platform features, were addressed through direct technical assistance, alternative internet connections, and individualized guidance. Documentation of the training process and products developed by participants was also used to support the evaluation of program implementation.

The outcomes of the mentoring were evaluated through pre-test and post-test assessments, participant satisfaction questionnaires, and semi-structured interviews. The competency assessment examined teachers' understanding of the Smart School concept, principles of technology-based curriculum development, and the use of digital media in elementary learning. The evaluation showed an average increase of 32% in participants' scores following the mentoring activities. Participant perceptions were measured using a

five-point Likert-scale questionnaire covering the relevance of the materials, facilitator competence, applicability of digital curriculum practices, availability of supporting facilities, and overall implementation. The evaluation indicated that 88% of participants considered the training highly relevant to their needs, while 92% reported that the activities provided new insights into integrating technology into learning. Follow-up interviews with the principal, curriculum coordinator, and selected teachers were used to obtain qualitative information concerning changes in teachers' confidence, perceived usefulness of the mentoring, future needs, and opportunities for continued curriculum development.

The final stage consisted of joint reflection and the preparation of a follow-up action plan with the school. Teachers and school management discussed the strengths and limitations of the activities, identified practices that could be continued, and formulated priorities for subsequent development. The follow-up plan included the gradual integration of selected digital platforms into learning plans, the establishment of a small team for technology-based curriculum development, preparation of internal guidelines for digital curriculum implementation, strengthening of teacher digital literacy through internal professional development, and periodic trials of technology-supported learning. Through this process, the mentoring was positioned not merely as a short-term training activity but as an initial intervention for strengthening the school's capacity to develop and implement a technology-based curriculum in support of sustainable Smart School implementation.

RESULT AND DISCUSSION

The mentoring program at SDN 1 Widoropayung generated three main findings concerning the development of a technology-based curriculum to support Smart School implementation. The findings indicate that the transformation was not limited to teachers' ability to operate digital applications but involved interconnected changes in teacher capacity, institutional curriculum orientation, and classroom learning practices. The three findings are discussed below.

1. Strengthening Teacher Capacity for Technology-Based Learning

The first finding concerns the strengthening of teachers' capacity to integrate technology into curriculum planning and learning practices. The initial needs assessment showed that technology utilization at SDN 1 Widoropayung was still limited. Most teachers continued to rely on conventional learning practices, including teacher explanations, textbooks, and written assignments. Although these approaches remained relevant for particular learning objectives, their dominant use indicated that digital technology had not yet become an integral component of instructional planning.

The initial assessment further showed that only approximately 30% of teachers regularly used digital media in learning. The remaining teachers had limited or occasional experience with technology-supported instruction. This condition illustrates an important gap between the availability of technological facilities and teachers' pedagogical readiness to use them. The school already had access to basic facilities such

as computers or laptops, internet connectivity, and LCD projectors, but these resources had not been optimally integrated into classroom learning.

The mentoring intervention therefore placed teacher capacity building as a central component. The training was conducted through workshops, demonstrations, hands-on practice, collaborative discussions, and coaching clinics. Rather than focusing solely on the technical operation of applications, the training emphasized how digital technologies could be connected with learning objectives, instructional strategies, student activities, and assessment.

Teachers were introduced to the Smart School concept as a broader educational transformation. Smart School implementation was explained not simply as the use of computers or online applications but as an effort to develop a more flexible, interactive, collaborative, and technology-supported learning environment. This conceptual orientation was important because technology adoption may become superficial when teachers understand digitalization only as the replacement of printed materials with electronic materials.

The practical component introduced teachers to Google Workspace applications, including Google Classroom, Google Docs, and Google Forms, as well as Canva for Education, Wordwall, and Quizizz. Teachers practiced using these platforms to distribute learning materials, design interactive activities, prepare assignments, develop visual learning resources, and conduct digital assessments. The emphasis was placed on the pedagogical purpose of each application so that teachers could determine which technology was appropriate for particular learning objectives.

The mentoring also encouraged teachers to develop simple digital teaching materials using devices that were already accessible to them. Several teachers began producing learning content using smartphones and Canva. This development is important because it demonstrates that initial digital transformation does not necessarily require sophisticated technological infrastructure. Teachers can begin with accessible technologies and gradually develop more complex digital learning practices as their competence increases.

The evaluation results indicated an improvement in teachers' readiness and confidence. Approximately 85% of teachers reported that they felt more confident in designing technology-based learning after participating in the mentoring program. In addition, the competency evaluation indicated an average improvement of approximately 30–35% in teachers' understanding of digital media utilization in learning. These results suggest that the combination of conceptual strengthening and direct practice was useful in reducing teachers' hesitation toward technology.

The finding is consistent with Munir and Su'ada (2024), who identify teacher digital literacy, access to technology-based teaching tools, and institutional support as important factors in digital curriculum development at the elementary school level. The

experience of SDN 1 Widoropayung reinforces the interdependence of these factors. Providing technological facilities without strengthening teacher competence may result in underutilized resources, while teacher training without institutional support may lead to fragmented and unsustainable individual practices.

The effectiveness of hands-on mentoring can also be understood through the experiential learning perspective of Kolb, Boyatzis, and Mainemelis (2014). Teachers were not merely exposed to information about digital technology but were provided with opportunities to practice, receive feedback, reflect on difficulties, and apply the acquired skills to their own learning contexts. This approach allowed the training to move from theoretical understanding toward practical competence.

The improvement in teacher confidence should nevertheless be interpreted as an initial development rather than evidence of complete digital pedagogical mastery. The relatively short duration of the program means that teachers still require continuous opportunities for practice and professional learning. Therefore, the central implication of this finding is that teacher capacity should be developed through sustained school-based learning communities, peer mentoring, and periodic training rather than through a single training intervention.



Figure 1. Teacher training and hands-on practice in technology-supported learning

The figure can be positioned after the discussion of the practical training activities to visually document teachers' participation in technology-based curriculum development and digital learning practice.

2. Institutionalizing Technology Integration through KOSP Development

The second finding concerns the transformation of technology integration from an individual teacher initiative into an institutional curriculum direction. The initial analysis showed that the existing KOSP had not explicitly incorporated technology as an important component of the school's learning strategy. Consequently, technology utilization tended to depend on the initiative and competence of individual teachers.

This condition created the possibility of uneven implementation. Teachers with greater digital competence could introduce more technology-supported activities, while

teachers with limited experience tended to continue using conventional approaches. Such variation indicates that teacher capacity alone is insufficient to produce consistent school-wide transformation. Institutional curriculum guidance is required to establish a common direction for technology integration.

The mentoring program therefore facilitated a collaborative review and revision of the KOSP with the school curriculum team. The revision focused on strengthening the relationship between the school's educational orientation, student competencies, learning strategies, and technology utilization. This process positioned the curriculum as an institutional instrument for guiding digital transformation rather than merely as an administrative document.

The revision of the school vision and mission emphasized the school's commitment to becoming an educational institution that is adaptive to technological developments. This change is important because institutional transformation requires a clear organizational orientation. When technology integration is reflected in the school's vision and mission, digital innovation gains a stronger institutional basis and is less dependent on individual teacher preferences.

The learning objectives and student competency orientation were also strengthened by emphasizing competencies relevant to contemporary education, including critical thinking, creativity, independence, collaboration, communication, and digital literacy. Technology was therefore positioned as a means of supporting the development of these competencies rather than as an educational goal in itself.

The curriculum revision also incorporated more explicit technology-supported learning strategies, including project-based and exploratory learning. Teachers were encouraged to use digital resources for information exploration, collaborative work, content development, presentation, and reflection. Such an orientation creates greater opportunities for students to become active participants in learning rather than passive recipients of information.

The assessment component was similarly expanded through the introduction of digital assessment practices, including online quizzes, digital portfolios, and online reflection. Digital assessment can provide teachers with more immediate information about student responses and learning progress. However, the mentoring emphasized that technology should complement pedagogical assessment principles rather than replace conventional assessment indiscriminately.

The curriculum revision consequently produced a significant institutional implication: technology integration began to shift from an incidental classroom practice toward a more systematic school-level strategy. This transformation is important for

Smart School development because sustainable digitalization requires alignment between curriculum policy and classroom implementation.

The process also demonstrated that curriculum revision should be understood as a form of organizational learning. Teachers and the curriculum team were required to collectively reconsider how learning objectives, teaching strategies, assessment, and technology could be aligned. Through this process, the curriculum became a space for negotiating and developing shared understandings of digital learning.

The institutional orientation developed through the revised KOSP also provides a foundation for future innovation. Teachers can develop digital learning activities while maintaining alignment with common school goals. This reduces the possibility that technology use will become fragmented across classrooms.

The finding supports the perspective of Rudianto, Wahyudi, and Handayani (2022), who emphasize the importance of institutional structures and supporting documents in sustaining the outcomes of technology training. Training can improve individual competence, but institutional documents, procedures, and organizational mechanisms are needed to maintain consistency after external assistance has ended.



Figure 2. Technology-based curriculum development workshop

The figure can be placed after the discussion of KOSP revision to document the collaborative curriculum development process involving teachers and the school team.

The institutionalization process, however, remains at an early stage. Although the school has identified the need for a small team responsible for technology-based curriculum development, the team had not yet been formally established by the end of the mentoring period. Therefore, the revised KOSP should be viewed as an initial institutional foundation that requires continuous implementation, monitoring, and periodic revision.

3. Technology-Supported Learning Implementation, Student Engagement, and Sustainability Challenges

The third finding concerns the translation of teacher training and curriculum development into classroom practice. A three-week trial of technology-supported

learning was conducted in Grade IV and Grade V to observe how the newly developed competencies and curriculum orientation could be applied in actual learning situations.

The classroom implementation showed that students became more actively involved when learning activities incorporated interactive digital media. Videos, animations, online quizzes, and other visual resources provided students with more varied ways to interact with learning content. The increased engagement was particularly visible in activities that required students to respond to questions, explore visual materials, and participate in interactive tasks.

This finding suggests that technology can contribute to the diversification of classroom learning when it is integrated with appropriate pedagogical strategies. Digital technology does not automatically create active learning. Its contribution depends on how teachers design activities and how students are positioned within the learning process. In the present program, technology-supported activities created additional opportunities for students to interact with content and respond to learning tasks.

The implementation also demonstrated changes in teachers' instructional practices. Teachers began experimenting with digital applications and integrating digital content into their existing teaching materials. Technology was no longer limited to the use of LCD projectors for presenting information but gradually expanded to digital assignments, interactive exercises, and online assessment.

This development indicates an initial shift from technology as a presentation tool to technology as a learning-support tool. In the former condition, technology primarily assists teachers in delivering information. In the emerging practice, technology also facilitates student interaction, assignment management, assessment, and learning communication.

The classroom trial also revealed the importance of adapting technology integration to the actual conditions of elementary schools. One of the main constraints was limited access to technological devices. Not all students could independently use devices at the same time. Teachers therefore needed to organize students into groups and encourage collaborative use of available devices. This strategy allowed digital learning to continue despite resource limitations.

Another challenge involved unstable internet connectivity. Several online learning activities were interrupted because of network limitations. Alternative internet connections could address some immediate difficulties, but the issue indicates that infrastructure development remains an important component of sustainable Smart School implementation.

These limitations demonstrate that digital transformation should not be based on a uniform model. Schools with limited infrastructure require adaptive strategies, such as group-based digital learning, shared devices, offline digital materials, downloadable learning resources, and low-bandwidth applications. Such approaches allow schools to gradually develop digital learning practices while infrastructure improvements are pursued.

The trial also generated an important development in school-home communication. The use of WhatsApp and Google Classroom provided additional channels for communicating learning materials and assignments. Parents could receive information about learning tasks and obtain greater awareness of their children's school responsibilities (Dasopang et al., 2023; Kong & Yasmin, 2022; Sengonul, 2022). This development suggests that technology-based curriculum implementation can extend the learning ecosystem beyond the physical classroom.

Nevertheless, digital communication with parents also requires attention to differences in access and digital literacy. Therefore, technology-supported parental involvement should remain flexible and should not depend exclusively on a single digital platform.

The sustainability of the program represents another important issue. Although teachers demonstrated increased confidence and began experimenting with digital learning, the mentoring period was relatively short. Without continuous professional development, there is a possibility that technology-supported practices will remain limited to teachers who are already highly motivated.

For this reason, the school needs to move from externally supported mentoring toward school-based sustainability mechanisms. One possible strategy is the development of a teacher learning community focused on digital curriculum and technology-supported pedagogy. Such a community can provide a space for teachers to share successful practices, discuss classroom difficulties, exchange digital learning materials, and provide peer assistance.

The establishment of an internal ICT or digital curriculum team can further strengthen this process. The team could coordinate technology use, assist teachers with technical problems, monitor the implementation of digital curriculum practices, and facilitate periodic curriculum reviews (Thelma et al., 2024).

The role of school leadership is also crucial in this process. Fullan (2001) emphasizes that educational change requires leadership that can facilitate changes in professional practice and organizational culture. In the context of SDN 1 Widoropayung, leadership support is needed to maintain teacher motivation, allocate available resources, facilitate

professional learning, and ensure that technology integration remains aligned with the school's educational priorities.

The figure can be positioned after the classroom implementation discussion. If the available documentation shows the implementation of ANBK, it may be used to illustrate the school's broader engagement with computer-based educational activities.



Figure 4. Computer-Based National Assessment (ANBK) Activities

The ANBK documentation should be presented as supporting evidence of the school's existing engagement with technology-based educational activities. It should not be interpreted as a direct outcome of the mentoring program unless the activity was specifically implemented as part of the intervention.

The three findings demonstrate that technology-based curriculum development at SDN 1 Widoropayung developed through an interconnected process. The first finding shows that teacher capacity is a critical entry point because teachers determine how technology is translated into classroom practice. The second finding demonstrates that curriculum institutionalization is necessary to provide a shared direction and prevent technology utilization from depending solely on individual teacher initiatives. The third finding shows that classroom implementation requires continuous adaptation and institutional support, particularly in relation to student access, internet connectivity, parental communication, and teacher professional development.

The relationship among these three findings can be understood as a cycle rather than a linear process. Teacher capacity enables curriculum implementation, the curriculum provides institutional direction for teacher practice, and classroom implementation generates experiences that can subsequently inform further curriculum improvement and professional development (Hasanah et al., 2024; Hidayah et al., 2024). This cycle provides an important foundation for developing a sustainable Smart School ecosystem.

The findings also reinforce the argument that Smart School transformation should not be equated with technological modernization alone. A school becomes more "smart" when technology is strategically integrated into educational goals, curriculum planning, teaching practices, assessment, communication, and institutional decision-making

(Munawwaroh & Putri, 2024). At SDN 1 Widoropayung, the mentoring program initiated this transformation by strengthening teacher competence, revising curriculum direction, and creating opportunities for technology-supported classroom practice.

From a practical perspective, the program indicates that elementary schools can begin their Smart School transformation using available resources rather than waiting for ideal technological conditions (Liu et al., 2024; Rider, 2022). The process can start with strengthening teacher competencies, identifying appropriate and accessible digital tools, integrating technology into curriculum planning, and implementing gradual classroom trials. Infrastructure improvement can then proceed alongside these pedagogical and institutional developments.

The sustainability of the transformation, however, depends on the school's ability to institutionalize the practices introduced during the mentoring program. The development of a three-year Smart School roadmap, an internal technology support team, regular digital curriculum reviews, teacher learning communities, and partnerships with external stakeholders such as universities, technology communities, and corporate social responsibility programs can provide mechanisms for continued development (Xue et al., 2022).

Overall, the mentoring program should therefore be viewed as an initial catalyst rather than a completed Smart School transformation. The observed improvements in teacher confidence, digital curriculum orientation, and technology-supported classroom practices provide a meaningful foundation, but long-term transformation requires continued professional development, infrastructure strengthening, institutional governance, and systematic evaluation. This perspective is particularly important for elementary schools operating under resource constraints, where Smart School development needs to be gradual, contextual, collaborative, and sustainable.

CONCLUSION

The technology-based curriculum development mentoring program at SDN 1 Widoropayung provided an important foundation for the school's gradual transformation toward a Smart School. The program strengthened teachers' capacity to integrate digital technology into curriculum planning, learning activities, and assessment through a combination of conceptual training, hands-on practice, and contextual mentoring. The improvement in teachers' understanding, confidence, and readiness to utilize digital learning tools indicates that needs-based and practice-oriented mentoring can support the transition from predominantly conventional learning practices toward more interactive and technology-supported instruction.

The program also contributed to strengthening the institutional foundation for digital transformation through the development and refinement of technology-oriented

curriculum components, digital teaching tools, and a follow-up action plan (RTL). These outputs provide the school with practical resources that can be implemented, evaluated, and further developed according to classroom needs. Nevertheless, the findings also indicate that Smart School transformation is a continuous process that requires sustained teacher development, improved technological infrastructure, institutional coordination, and consistent leadership support. Therefore, the mentoring program should be regarded as an initial catalyst for building a sustainable technology-based learning ecosystem, with continued curriculum review, teacher learning communities, and gradual infrastructure development needed to maintain and expand the outcomes of the program.

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