

## Innovation in supervision tools as a solution for effective and sustainable educational development

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### Abstract:

Innovations in supervision tools can improve the quality of education through providing constructive feedback, thereby creating a better learning atmosphere. The aim of this research is to provide innovative solutions for supervision tools for effective and sustainable educational development. This research uses a type of qualitative research with a case study approach. This research uses a type of qualitative research with a case study approach, which allows researchers to explore in detail the phenomenon of innovation in supervision tools. Data collection techniques in this research are observation, interviews and documents. The results of this research: Innovation of supervision tools as an effective and sustainable educational development solution produced findings including research on innovation of supervision tools as an effective and sustainable educational development solution resulting in a Competency Based Supervision Module, Integrated Feedback System and Stakeholder Involvement.

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## INTRODUCTION

Innovation in supervision tools can improve the quality of education by providing constructive feedback, and this approach creates a better learning environment; however, its successful implementation relies heavily on the support of all stakeholders, including teachers, parents, and the community (Berhe et al., 2023; Bakokonyane & Pansiri, 2024; Kohn, 2024). Innovation in supervision tools improves communication between schools and parents, helping to create synergy in supporting student development. Schools that implement innovative supervision tools report increased student engagement and academic performance, demonstrating a positive relationship between effective feedback and learning outcomes. Innovation in supervision tools has the potential to improve the quality of education through constructive feedback and



the creation of a better learning environment (Osiesi et al., 2023; Patel & Lim, 2024; Manoharan et al., 2024). However, its successful implementation relies heavily on collaborative support from teachers, parents, and the community, which in turn improves student communication and engagement, as well as overall academic performance.

Research on innovative supervision tools as a solution for effective and sustainable educational development has been extensively researched by several researchers. Research also shows that supervision tools that involve all parties (teachers, students, parents, and the community) are more effective, thus sparking researchers' interest in exploring this aspect (Jałocha et al., 2021; Indarti, 2021); Mukherjee, 2024). Many published studies show that schools that implement innovative supervision tools experience significant improvements in teaching quality and student learning outcomes. Many studies have shown that innovative supervision tools that involve all parties teachers, students, parents, and the community significantly improve teaching quality and student learning outcomes, thus attracting researchers' interest in further exploring this aspect as a solution for effective and sustainable educational development.

The purpose of this research is to provide innovative solutions for supervision tools for effective and sustainable educational development. Innovation in supervision tools can encourage active participation from various parties, including teachers, students, parents, and the community, which is needed to create a more supportive learning environment. (Morris, 2000; Ead, 2024; Chamba & Chikusvura, 2024). Research shows that innovative supervision tools improve communication between schools and parents, creating stronger synergies in supporting student development. This research aims to provide innovative solutions for supervision tools for effective and sustainable educational development, by encouraging active participation from teachers, students, parents, and the community, as well as improving communication between schools and homes to create a more supportive learning environment.

Arguments in research on supervisory tool innovation as a solution Effective and sustainable educational development resulted in the Competency-Based Supervision Module, Integrated Feedback System, and Stakeholder Engagement. This innovative supervisory tool focuses on sustainable development, thus not only improving the quality of education in the short term but also building a strong foundation for future educational development (Puaschunder, 2023; Capobianco, 2023; Halagatti et al., 2023). Data from institutions using innovative supervisory tools show increased student engagement and parental participation in school activities, indicating stronger synergy in supporting student development. The argument in this study shows that innovative supervisory tools, through the Competency-Based Supervision Module, Integrated Feedback System, and Stakeholder Engagement, not only improve the quality of education in the short term but also build a strong foundation for sustainable educational development, with data indicating increased student engagement and parental participation in supporting student development.

## RESEARCH METHOD

The research object is regarding the Innovation of Supervision Tools as a Solution for Effective and Sustainable Educational Development at SMP Plus Darussalam. The object of this research is SMP Plus Darussalam, an educational institution that demonstrates a strong commitment to improving the quality of education through the application of innovative methods. This school has unique characteristics and readiness to implement new supervision tools, making it an ideal location to explore the effectiveness of innovation in educational development. The active involvement of teachers, students, and parents at SMP Plus Darussalam also provides diverse perspectives that can enrich the research results. In addition, this school faces real challenges in improving the quality of teaching and learning, making this research highly relevant. With the potential to be used as a model in the implementation of sustainable educational development, the research results at SMP Plus Darussalam can provide significant contributions that can be adapted by other educational institutions in the future.

This study uses a qualitative research type with a case study approach. This study uses a qualitative research type with a case study approach, which allows researchers to explore in detail the phenomenon of supervision tool innovation at SMP Plus Darussalam. By collecting data through in-depth interviews with teachers, students, and parents, as well as direct observation during learning activities, this study aims to understand how the innovation is implemented and its impact on educational quality. The case study approach provides an opportunity to explore the specific context of the school, allowing researchers to identify factors influencing the success of innovations in fostering effective and sustainable education. Through qualitative analysis, the findings of this study are expected to provide deeper insights into good educational practices relevant to other institutions.

The informants in this study were the principal, teachers, and students of SMP Plus Darussalam Blokagung. The informants in this study included the principal, teachers, and students of SMP Plus Darussalam Blokagung, each of whom provided unique perspectives on the implementation of the innovative supervision tool. The principal played a role in providing insight into the institution's policies and vision for improving the quality of education, as well as how the innovation aligns with the school's goals. Teachers, as the primary implementers in the field, provided information about their experiences in using the supervision tool, the challenges they faced, and its impact on teaching methods and interactions with students. Students, on the other hand, contributed their perspectives on how the innovative supervision tool impacted their learning experiences, level of engagement, and motivation to learn. By involving these three groups of informants, this study aimed to obtain a comprehensive and in-depth picture of the effectiveness of the innovative supervision tool at SMP Plus Darussalam.

The data collection techniques used in this study were observation, interviews, and documents. The informants included the principal, teachers, and students of SMP Plus Darussalam Blokagung, each of whom made significant contributions to understanding the implementation of the innovative supervision tool. The principal served as a leader, providing insight into the school's strategic policies and educational

vision, as well as how the innovative supervision tool aligned with the goal of improving teaching quality. Through interviews, the principal explained the importance of collaboration between all parties in implementing the desired changes. Teachers at SMP Plus Darussalam, as the primary implementers, shared their experiences using the supervision tool, including the challenges they faced and the successes they achieved. They provided detailed information about changes in teaching methods and the tool's impact on student engagement. Students were also involved as informants to gain perspectives from direct recipients of this innovation. Through group discussions and interviews, students shared how the innovative supervision tool impacted their learning experiences, created a more interactive classroom atmosphere, and increasing learning motivation. By involving the principal, teachers, and students as informants, this study aims to obtain a comprehensive and in-depth picture of the effectiveness of supervisory tool innovation at SMP Plus Darussalam.

The data analysis in this study used the Spradley model, which consists of four stages: domain analysis, taxonomy, component analysis, and cultural themes. The data analysis in this study used the Spradley model, which consists of four important stages: domain analysis, taxonomy, component analysis, and cultural themes. First, in the domain analysis stage, the researcher identified and categorized key terms or concepts that emerged from the collected data, such as factors influencing the implementation of supervisory tool innovation at SMP Plus Darussalam. In this stage, the researcher sought to understand the context and meaning behind the data, which helped determine the scope of the study. Next, in the taxonomy stage, the researcher grouped the data based on more specific categories. For example, categories could include the types of feedback received by teachers, the types of engagement shown by students, and the roles played by the principal. This stage aims to provide a clearer structure to the collected data. Then, in the component stage, the researcher analyzed the relationships between these categories, exploring the interactions and influences between components in the context of supervisory tool innovation. For example, researchers might explore how teacher feedback influences student motivation or how the principal's policies support parental involvement. Finally, at the cultural themes stage, researchers seek to identify broader themes that reflect the school's culture and values. In the context of SMP Plus Darussalam, these themes might include the importance of collaboration between the school and the community in supporting education, or how innovative supervision tools reflect the values of continuous learning. Using Spradley's model, the data analysis in this study is expected to provide in-depth and holistic insights into the effectiveness of innovative supervision tools as a solution for effective and sustainable educational development.

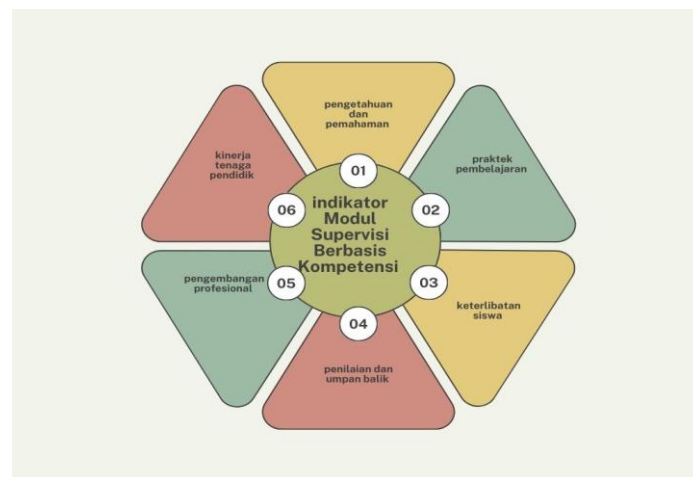
## **RESULT AND DISCUSSION**

### **Result**

#### **Competency-Based Supervision Module**

Supervision tools that integrate competency-based modules support teacher professional development with a more structured approach. A competency-based approach allows teachers to continuously evaluate and improve their teaching

practices, leading to improved educational quality (Jałocha et al., 2021; Berhe et al., 2023; Ead, 2024). Surveys of teachers using competency-based supervision tools indicate that they feel more confident and prepared to teach, with many reporting increased student engagement. Supervision tools that integrate competency-based modules effectively support teacher professional development and enhance the quality of education through continuous evaluation and improvement of teaching practices, as well as increasing student confidence and engagement. (Ruben et al., 2022; Puaschunder, 2023; Otoo, 2024)



**Figure 1. Researcher's processing based on observations**

Based on the figure above, the indicators of the Competency-Based Supervision Module are Knowledge and Understanding, Learning Practices, Student Engagement, Assessment and Feedback, Professional Development, and Educator Performance. The Competency-Based Supervision Module includes several key indicators aimed at improving the quality of education and teacher professional development. These indicators include teacher knowledge and understanding of competency standards, innovative learning practices, and the level of student engagement in the teaching and learning process. Furthermore, objective assessment and constructive feedback are essential for continuous improvement, while professional development demonstrates teachers' commitment to continuous learning and development (Withorn et al., 2021; Caffrey et al., 2022). Finally, improved teacher performance can be measured through student learning outcomes and feedback from various stakeholders. Overall, implementing these indicators helps create a better learning environment where both teachers and students can grow and develop optimally (Sandhu, 2021; Getty et al., 2021; Doulougeri et al., 2022). Thus, supervisory tools that integrate competency-based modules effectively support teacher professional development, improve teaching practices, and enhance the quality of education and student engagement.

### **Integrated Feedback System**

Innovations in feedback systems integrated with supervisory tools accelerate the process of improving and developing teaching quality. Integrated supervisory tools enable educational supervisors to conduct continuous monitoring, supporting faster improvements than periodic evaluations (Sandhu, 2021; Getty et al., 2021; Doulougeri et al., 2022). Integrated supervision tools enable in-depth data analysis, thus facilitating



better and faster decision-making in the context of educational development. Innovations in feedback systems integrated with supervision tools significantly accelerate the process of improving and developing teaching quality through continuous monitoring and in-depth data analysis, enabling more effective decision-making in educational development (Cameron, 2022; Puaschunder, 2023; Batra et al., 2024).



**Figure 2. Researcher's processing based on interviews**

Based on the image above, the indicators of the Integrated Feedback System are feedback quality, feedback frequency, accessibility, follow-up, and impact on performance (Cameron, 2022; Puaschunder, 2023; Caffrey et al., 2023). Clear and constructive feedback helps recipients understand areas for improvement. Consistent frequency supports continuous development, while accessibility ensures feedback is readily accessible. Effective follow-up encourages implementation of suggestions, and a positive impact on performance reflects the system's success. By optimally implementing these indicators, organizations can create an environment conducive to growth and productivity. Innovations in feedback systems integrated with supervisory tools significantly accelerate the process of improving and developing teaching quality through continuous monitoring and in-depth data analysis, enabling more effective decision-making in educational development (Indarti, 2021; Sandhu, 2021; Bagherpasandi et al., 2024).

### **Stakeholder Engagement**

Supervision tools that involve parents and the community in the educational development process increase external support and collaboration for educational progress. Supervision tools that involve parents and the community enhance communication between school and home, creating stronger synergy in supporting student development (Cleaning Up, 2022; Turin & Davidson, 2022; Bagherpasandi et al., 2024). Schools that implement community engagement programs have reported significant improvements in academic performance and student engagement, as well as stronger school-community relationships. Supervision tools that involve parents and the community in educational development significantly increase external support and collaboration, resulting in better communication between school and home and improved academic performance and student engagement.



**Figure 3. Researcher's processing based on interviews**

Based on the image above, the indicators of Stakeholder Involvement are participation in meetings, involvement in decision making, Decisions, Collaboration in School Activities, Stakeholder Feedback, Resource Support, Stakeholder Satisfaction, Involvement in Extracurricular Activities, and Effective Communication. Stakeholder feedback is crucial for program evaluation and improvement, while resource support from stakeholders contributes to the success of policy implementation (Puaschunder, 2023; Bakokonyane & Pansiri, 2024). Stakeholder satisfaction levels serve as a measure of the effectiveness of communication and policy implementation, and can also be measured through surveys. Involvement in extracurricular activities demonstrates stakeholders' commitment to student development beyond the curriculum, and effective communication creates transparency and trust among all parties. Overall, implementing these indicators enables schools to build strong relationships with stakeholders, create a supportive learning environment, and improve educational outcomes for students (Cleaning Up, 2022; Turin & Davidson, 2022; Puaschunder, 2023). Supervision tools that involve parents and the community in educational development significantly increase external support and collaboration, resulting in better communication between school and home and improving student academic performance and engagement.

## DISCUSSION

This research focuses on innovative approaches to supervision tools aimed at improving educational development, highlighting the impact of competency-based supervision modules, integrated feedback systems, and stakeholder engagement on teacher professional development and student outcomes. The findings reveal that these innovations not only enhance the quality of teaching but also foster a more collaborative and data-driven educational environment.

The implementation of competency-based supervision modules has shown a significant positive effect on teacher development. These modules, which emphasize continuous evaluation and improvement, provide a structured approach to professional growth. By integrating key indicators such as teacher knowledge, learning

practices, student engagement, and professional development, schools can create an environment conducive to both teacher and student growth. Teachers have reported feeling more confident and better prepared to engage with their students, with many observing increased student engagement and participation. This approach aligns with the findings of previous research, which suggests that competency-based supervision is crucial for enhancing teaching practices and educational quality (Jałocha et al., 2021; Berhe et al., 2023; Ead, 2024). The inclusion of feedback and assessment indicators further supports teachers' ongoing development, reinforcing the importance of continuous professional learning and improvement (Ruben et al., 2022; Puaschunder, 2023; Otoo, 2024).

The second innovation, the integrated feedback system, significantly accelerates the process of improving teaching quality. The integration of continuous monitoring and real-time data analysis allows educational supervisors to make more informed decisions and provide timely support. The indicators of feedback quality, frequency, accessibility, follow-up, and performance impact are critical in ensuring that feedback is constructive and leads to tangible improvements. This research supports the notion that feedback systems integrated with supervisory tools provide a more effective means of promoting teacher development, as it enables a more responsive and adaptive approach to educational supervision (Cameron, 2022; Puaschunder, 2023; Batra et al., 2024). Teachers are more likely to implement suggestions when feedback is frequent, accessible, and followed up on, ultimately leading to improvements in teaching practices and student outcomes.

Stakeholder engagement is another critical element in the success of educational supervision tools. Involving parents and the community in the educational development process creates stronger partnerships that support student growth beyond the classroom. The research indicates that schools with active community engagement programs experience better communication between school and home, resulting in improved academic performance and increased student engagement. Stakeholder involvement in decision-making, extracurricular activities, and resource support plays a vital role in creating a supportive learning environment. This collaborative approach not only strengthens school-community relationships but also contributes to the overall success of educational policies (Cleaning Up, 2022; Turin & Davidson, 2022; Bagherpasandi et al., 2024). The findings align with existing literature, which highlights the importance of involving external stakeholders in educational development to ensure long-term success (Puaschunder, 2023; Bakokonyane & Pansiri, 2024).

## CONCLUSION

The conclusion from the discussion on the Competency-Based Supervision Module and stakeholder engagement in education is that the competency-based approach provides a clear structure for teacher professional development, leading to improved educational quality. This supervisory tool allows teachers to continuously evaluate and improve their teaching practices. Furthermore, the implementation of indicators such as knowledge, instructional practices, and constructive feedback helps



create a better learning environment that supports the growth of both students and teachers. Thus, increased student engagement and improved learning outcomes are indicators of the system's success.

Furthermore, innovations in integrated feedback systems and stakeholder engagement, such as parents and the community, play a crucial role in improving educational quality. Continuous monitoring and in-depth data analysis from feedback systems enable more effective decision-making. Stakeholder involvement in the educational process creates synergy between school and home, positively impacting academic performance and student engagement. Overall, strong collaboration and effective communication between all parties result in a more supportive educational environment, which in turn improves student learning outcomes.

## **ACKNOWLEDGMENT**

The knowledge generated from this research emphasizes the effectiveness of integrating technology and stakeholder involvement into the educational supervision process. First, it underscores the importance of competency-based supervision as a means to foster continuous teacher development, with a focus on personalized and flexible learning. Second, the research highlights the role of integrated feedback systems in providing real-time, actionable insights that accelerate improvements in teaching. Finally, it emphasizes the necessity of involving parents and the community in the educational process, recognizing their contributions as pivotal in enhancing student learning outcomes and fostering a supportive learning environment.

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