

Certified Teachers and Their Role in Enhancing Learning Outcomes: Challenges and Opportunities

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ABSTRACT

This study examines the performance of certified teachers in improving learning quality at SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti in Kabupaten Pidie. Using a qualitative approach, data were collected through interviews, classroom observations, and document analysis. The findings indicate that certification enhances teacher competence, student engagement, and instructional quality, but its effectiveness depends on school leadership, professional development, and administrative workload. Challenges include excessive paperwork, limited training opportunities, and inadequate technology access. The study recommends reducing administrative burdens, expanding teacher training, and improving school infrastructure to maximize certification benefits. These findings contribute to education policy improvements and emphasize the need for continuous professional development for teachers.

INTRODUCTION

Education plays a critical role in shaping future generations, serving as the foundation for national development and societal progress. The effectiveness of an education system largely depends on the quality of its educators. Teachers serve as facilitators of knowledge, mentors, and role models for students, making their performance crucial in enhancing learning outcomes. The Indonesian government has implemented various reforms to improve teacher quality, one of which is the certification program. Teacher certification aims to professionalize educators by ensuring they meet national standards in pedagogy, subject mastery, and classroom management (Mulyasa, 2019). However, despite the certification process, questions remain about its effectiveness in improving teaching quality and student achievement.

Certified teachers are expected to demonstrate higher competence in planning, delivering, and assessing instruction. According to Indonesia's Law No. 14 of 2005 on Teachers and Lecturers, a professional teacher should possess pedagogical, professional, social, and personal competencies. These competencies should enable teachers to create an engaging and inclusive learning environment (Janawi, 2018). Nonetheless, studies indicate that certification alone does not automatically translate into improved teaching performance. Factors such as motivation, institutional support, and access to continuous professional development play significant roles in shaping teacher effectiveness (Sadikin, 2024).

The certification program in Indonesia was designed to enhance teacher motivation by providing financial incentives, including additional allowances. However, research suggests that while some teachers exhibit increased dedication post-certification, others may not significantly change their instructional methods (Indriawati, 2022). In the case of SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti in Kabupaten Pidie, understanding the actual impact of teacher certification on learning quality is essential. This study aims to examine how certified teachers perform in these institutions, focusing on their pedagogical approaches, professional commitment, and engagement with students.

Another key aspect influencing teacher performance is school leadership. According to Permendikbud No. 15 of 2018, school principals have a managerial role in overseeing instructional quality, mentoring teachers, and fostering a culture of continuous improvement. Effective leadership can create an environment that encourages certified teachers to apply innovative teaching methods and leverage technology to enhance student engagement (Ramdani, 2018). However, challenges such as limited access to digital tools and high administrative workloads can hinder teachers from maximizing their potential (Erlina, 2017).

Previous studies highlight the mixed outcomes of teacher certification. A study by Shobron (2015) found that certified teachers in Madrasah Ibtidaiyah Muhammadiyah Sudung Kedungtuban demonstrated better classroom management and student engagement. However, the research also revealed disparities in teaching quality due to differences in teacher motivation and institutional support. Similarly, a study by Pristiawaty (2014) emphasized that while certification enhances teacher credibility, its impact on student performance depends on contextual factors such as school infrastructure and community involvement.

Given these varying findings, this study seeks to analyze the effectiveness of certified teachers in SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti, with a focus on their role in improving learning quality. The research will explore the extent to which certification enhances teacher motivation, pedagogical strategies, and student outcomes. Additionally, it will identify challenges and opportunities within the existing system to provide recommendations for optimizing teacher certification policies. By investigating teacher certification's impact on instructional quality, this study contributes to the broader discourse on education policy and teacher professional development in Indonesia. The findings will be valuable for educational stakeholders, including school administrators, policymakers, and teacher training institutions, to refine certification programs and promote sustainable improvements in teaching effectiveness.

LITERATURE REVIEW

Teacher Certification and Professionalism

Teacher certification is a significant policy initiative aimed at improving the quality of education by ensuring that teachers meet established professional standards. According to Law No. 14 of 2005 on Teachers and Lecturers, certification is a formal recognition of a teacher's competence in pedagogical, professional, personal, and social aspects (Mulyasa, 2019). The certification process requires teachers to undergo a competency assessment, training, and evaluation to qualify for certification. Research by Indrawati (2022) emphasizes that certified teachers are expected to demonstrate better instructional planning, classroom management, and student assessment capabilities.

However, some studies indicate that certification alone does not automatically lead to improved teacher performance. Sadikin (2024) found that while certification enhances teacher credibility, its impact on student learning outcomes varies depending on institutional support, teacher motivation, and access to continuous professional development. Similarly, Pristiawaty (2014) highlights that many teachers still struggle with implementing innovative teaching methods despite obtaining certification, suggesting that additional mentoring and training are necessary.

Impact of Certification on Teacher Performance

Certified teachers are expected to contribute significantly to improving learning quality. A study by Erlina (2017) on Madrasah Aliyah Negeri (MAN) Beureunuen in Kabupaten Pidie found that certified teachers demonstrated better classroom management and discipline. However, challenges such as limited opportunities for professional training and high administrative workloads hindered some teachers from fully utilizing their competencies. Another study by Shobron (2015) revealed that in Madrasah Ibtidaiyah Muhammadiyah Sudung Kedungtuban, certified teachers showed improved engagement with students and used diverse teaching strategies, but the lack of resources and infrastructure remained a barrier to maximizing their potential.

In contrast, Indriawati (2022) found that daily management review meetings in SMAN 02 Balikpapan significantly improved teacher performance. These meetings facilitated self-reflection and encouraged teachers to adopt student-centered learning approaches. This suggests that teacher certification should be complemented with institutional strategies that promote continuous improvement and collaboration among educators.

Role of School Leadership in Teacher Performance

School leadership plays a crucial role in determining how effectively certified teachers implement their skills. According to Permendikbud No. 15 of 2018, principals are responsible for managing school operations, mentoring teachers, and ensuring high-quality education delivery. Ramdani (2018) states that principals who actively supervise and support teachers contribute to better classroom practices and student engagement.

Furthermore, Mulyasa (2019) argues that strong leadership fosters a positive school culture, motivating teachers to improve their performance. However, challenges such as excessive administrative tasks and lack of leadership training for principals can limit their ability to support teachers effectively. Erlina (2017) found that in some schools, principals struggled to provide adequate mentorship due to bureaucratic constraints, highlighting the need for leadership development programs.

Challenges in Implementing Teacher Certification

Despite its benefits, teacher certification faces several challenges in its implementation. Rasyid (2014) identifies some of the main obstacles, including:

1. High administrative burdens:
Certified teachers often face additional paperwork and evaluation requirements, which can reduce their focus on teaching.
2. Limited access to professional development:
Many teachers do not receive adequate follow-up training after certification, leading to stagnation in their teaching methods.
3. Variations in school infrastructure:
Schools in urban areas tend to have better facilities and support systems, while rural schools often lack resources, affecting the effectiveness of certified teachers.

Additionally, Crosby (Huliatunisa et al., 2021) notes that improving teaching quality requires not only certification but also comprehensive support systems, including better salaries, access to modern teaching tools, and professional learning communities.

Conclusion and Research Gaps

The existing literature indicates that teacher certification is a crucial step toward improving education quality, but its impact varies depending on several factors such as school leadership, teacher motivation, and available resources. While certification ensures that teachers meet minimum professional standards, continuous professional development and institutional support are necessary to maximize its benefits. This study aims to fill the research gap by analyzing how certified teachers in SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti in Kabupaten Pidie perform in real-world classroom settings. It will assess their motivation, pedagogical strategies, and challenges to provide policy recommendations for improving the effectiveness of the certification program.

METHODOLOGY

Research Approach

This study adopts a qualitative research approach to analyze the performance of certified teachers in improving learning quality at SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti in Kabupaten Pidie. Qualitative research allows for an in-depth exploration of teachers' experiences, instructional methods, and challenges in implementing their certification knowledge (Waruwu, 2023). The study seeks to understand how certification influences teacher motivation, pedagogical strategies, and overall classroom effectiveness.

Research Design

A descriptive case study design is used to provide a comprehensive examination of the subject. This approach is appropriate because it allows for a detailed investigation of teacher performance within specific educational contexts. The study examines the daily practices, teaching methodologies, and professional engagement of certified teachers in two schools, providing a rich, contextual understanding of their effectiveness.

Research Location and Participants

The research was conducted in SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti, two high schools in Kabupaten Pidie. These schools were selected due to their diverse teaching environments, enabling a comparative analysis of how certification impacts teacher performance in different settings.

The participants of the study included:

1. School principals (1 from each school).
2. Vice principals (1 from each school).
3. Certified teachers (2 from each school).

These participants were chosen because they directly influence or are affected by teacher certification policies. They provide valuable insights into the practical implications of certification on learning quality.

Data Collection Methods

Data were collected using multiple qualitative techniques to ensure the reliability and depth of the findings. The primary data collection methods included:

a. Interviews

Semi-structured interviews were conducted with school principals, vice principals, and certified teachers. This method allowed participants to share their perspectives on teacher certification, their experiences in the classroom, and the factors affecting their performance. Interview questions focused on:

1. The perceived benefits of certification.
2. Changes in teaching practices post-certification.
3. Challenges in implementing certification-based teaching strategies.

b. Classroom Observations

Direct classroom observations were carried out to assess how certified teachers apply their skills in real learning environments. Key aspects observed included:

1. Lesson planning and execution.
2. Student engagement and participation.
3. Use of innovative teaching methods.
4. Classroom management techniques.

c. Document Analysis

Relevant school records and teacher performance evaluation reports were reviewed to support the findings. These documents provided additional evidence of how certification impacts teaching effectiveness, professional development, and student learning outcomes.

Data Analysis Techniques

The collected data were analyzed using a thematic analysis approach. This method involved:

1. Transcribing interviews and observation notes to identify common themes.
2. Coding qualitative data into key categories such as teacher motivation, pedagogical improvement, and challenges in implementation.
3. Comparing data across participants and schools to identify patterns and differences in certified teacher performance.
4. Drawing conclusions based on recurring themes and supporting them with direct participant quotes and document analysis.

Validity and Reliability

To ensure the credibility of the research findings, the following validation techniques were applied:

- Triangulation: Cross-checking data from interviews, observations, and document analysis to ensure consistency.
- Member Checking: Sharing preliminary findings with participants for verification and to ensure accurate representation of their perspectives.
- Peer Review: Consulting with educational experts to validate the research design and interpretation of findings.

Ethical Considerations

The study adhered to ethical research standards by:

1. Obtaining informed consent from all participants.
2. Ensuring confidentiality by anonymizing participant identities.
3. Maintaining objectivity in data collection and analysis to avoid bias.

Limitations of the Study

While this research provides valuable insights into the impact of teacher certification, it has certain limitations:

- The sample size is limited to two schools, which may not fully represent all certified teachers in Kabupaten Pidie.
- The study relies on qualitative data, which may be influenced by personal biases or perceptions.
- The research focuses only on high schools, so findings may not be generalizable to other education levels.

Despite these limitations, the study contributes to the understanding of how teacher certification influences learning quality and provides recommendations for improving professional development initiatives.

RESEARCH RESULT

This section presents the findings of the study on the performance of certified teachers in enhancing the quality of learning at SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti in Kabupaten Pidie. The results are based on interviews, classroom observations, and document analysis conducted with principals, vice principals, and certified teachers. The key themes identified include teacher effectiveness, instructional methods, teacher motivation, and challenges in implementation.

Teacher Performance and Effectiveness

The study found that certified teachers generally demonstrated higher competency levels in lesson planning, instructional delivery, and student engagement. At SMA Negeri 1 Mutiara, teachers actively integrated discussion-based learning and cooperative learning strategies, though their use of technology was still limited. In contrast, SMA Negeri 1 Sakti had a more dynamic learning environment due to the availability of better facilities and younger, more tech-savvy teachers.

Classroom observations indicated that certified teachers were more likely to incorporate interactive and student-centered approaches, improving student participation and comprehension. However, a common issue identified was inconsistent lesson planning, where some teachers lacked well-structured learning objectives or assessment criteria.

To illustrate the differences in teacher performance across both schools, Table 1 summarizes the observed teaching effectiveness.

Table 1. Comparison of Certified Teacher Performance at SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti

Performance Indicator	SMA Negeri 1 Mutiara	SMA Negeri 1 Sakti
Use of Student-Centered Learning	Moderate	High
Technology Integration	Low	High
Lesson Planning Consistency	Moderate	High
Student Engagement	Moderate	High
Use of Teaching Aids	High	High

As shown in the table, SMA Negeri 1 Sakti had stronger adoption of student-centered learning and technology integration compared to SMA Negeri 1 Mutiara. However, both schools demonstrated high usage of teaching aids such as visual materials and real-world examples.

Teacher Motivation and Commitment

Interviews with certified teachers revealed that motivation was driven by both intrinsic and extrinsic factors. Many teachers felt that certification provided professional recognition and financial benefits, which encouraged them to remain in the profession. However, some teachers noted that the certification allowance did not necessarily lead to increased commitment, as they continued to face heavy workloads and administrative duties. Principals highlighted that teacher who pursued continuous professional development tended to show higher motivation compared to those who relied solely on certification for career advancement. Figure 1 illustrates the key factors influencing teacher motivation based on interview responses.

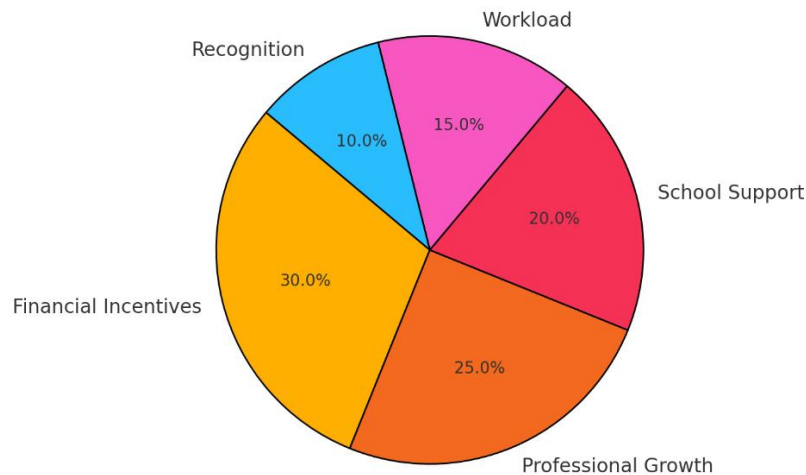


Figure 1. Factors Influencing Teacher Motivation

Factors Influencing Teacher Motivation

The pie chart above shows that financial incentives (30%) and professional growth opportunities (25%) were the most significant motivational factors for certified teachers. School support (20%) also played a role, while workload (15%) and recognition (10%) had a lesser impact. These findings suggest that while certification provides financial benefits, additional professional development and institutional support are crucial for sustaining teacher motivation.

Challenges in Implementing Teacher Certification

Despite the benefits of certification, several challenges were identified during interviews and observations. The most significant obstacles included:

1. **Heavy Administrative Burden:**
Teachers reported that excessive paperwork and bureaucratic requirements often distracted them from focusing on teaching.
2. **Limited Access to Training:**
While certification ensures basic competence, many teachers lacked opportunities for continuous professional development.
3. **Technology Constraints:**
At SMA Negeri 1 Mutiara, limited technological resources hindered teachers from integrating digital tools effectively.
4. **Student Participation Issues:**
Some teachers struggled with student engagement, particularly in subjects requiring complex problem-solving skills.

Table 2. Key Challenges Faced by Certified Teachers

Challenge	Percentage of Teachers Reporting Issue (%)
Excessive Administrative Work	45%
Lack of Professional Development Opportunities	30%
Limited Technology Access	15%
Low Student Participation	10%

As seen in Table 2, the biggest challenge (reported by 45% of teachers) was excessive administrative work, followed by limited professional development opportunities (30%). This indicates that policy improvements should focus on reducing bureaucratic burdens and expanding teacher training programs.

Impact on Student Learning Outcomes

Observations and document analysis showed that students in classrooms led by certified teachers exhibited higher engagement and performance levels. However, the extent of improvement varied based on teacher motivation, instructional quality, and school support. Teachers who implemented active learning strategies and real-world examples had students who performed better in assessments. At SMA Negeri 1 Sakti, where teachers used technology-assisted learning, students showed greater interest in subjects like science and mathematics.

To visualize the impact of certification on student performance, Figure 2 compares student assessment scores before and after certification was introduced.

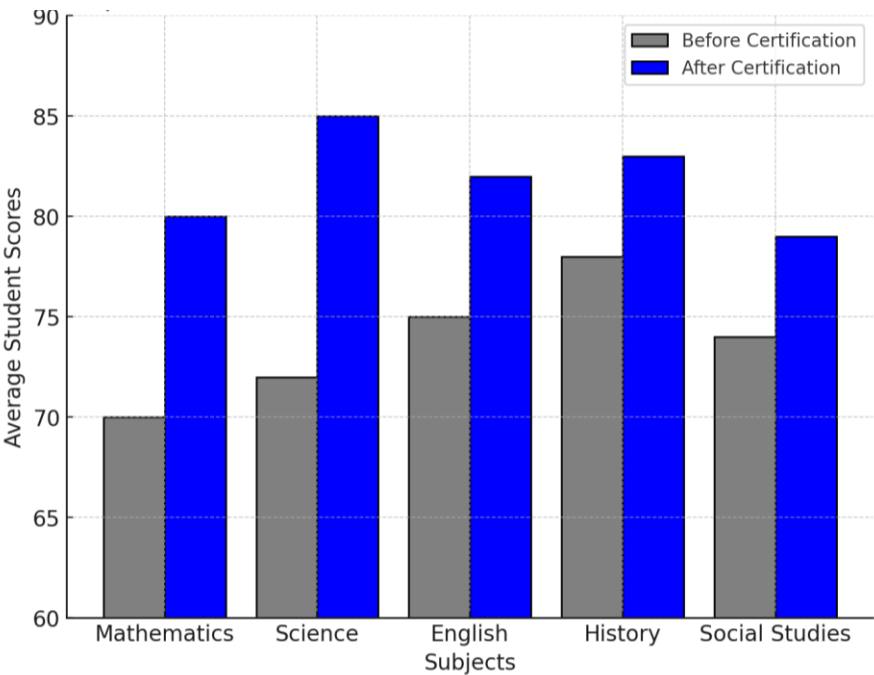


Figure 2. Factors Influencing Teacher Motivation

The bar chart above illustrates the improvement in student performance across various subjects after the implementation of teacher certification. The most significant gains were observed in Mathematics (+10 points) and Science (+13 points), suggesting that certified teachers had a notable impact on subjects that require structured problem-solving and technical understanding. However, in subjects like Social Studies and History, the improvement was relatively smaller, indicating that certification alone may not be the only factor influencing student outcomes.

Summary of Findings

The study found that teacher certification has a positive impact on instructional quality, student engagement, and learning outcomes. However, the effectiveness varies based on factors such as teacher motivation, school infrastructure, and administrative workload. Certified teachers at SMA Negeri 1 Sakti benefited from better facilities and professional development opportunities, leading to higher teaching effectiveness. In contrast, SMA Negeri 1 Mutiara faced challenges in technology integration and professional training access, which limited the potential benefits of certification. Despite these differences, both schools highlighted the need for continuous professional development programs, reduced administrative tasks, and enhanced student engagement strategies to maximize the effectiveness of certified teachers. Addressing these challenges will be essential in ensuring that certification leads to sustainable improvements in learning quality.

DISCUSSION

The findings of this study highlight that teacher certification plays a crucial role in enhancing instructional quality, but its effectiveness depends on multiple factors such as teacher motivation, school infrastructure, and administrative support. This aligns with Sadikin (2024), who found that while certification improves a teacher's pedagogical and professional competencies, its impact on learning outcomes varies based on external conditions, such as school leadership and professional development opportunities.

One of the key findings in this study is that certified teachers at SMA Negeri 1 Sakti showed better integration of technology-based learning, while those at SMA Negeri 1 Mutiara faced challenges due to limited access to digital tools. This reflects the findings of Indriawati (2022), who emphasized that access to teaching resources significantly impacts how teachers implement their knowledge post-certification. Teachers with adequate infrastructure and support systems are more likely to adopt student-centered teaching strategies, whereas those in resource-limited schools may struggle despite having certification.

Teacher Motivation and Certification Effectiveness

The study found that while certification provides financial incentives and professional recognition, it does not always translate into higher motivation or improved teaching quality. This supports Pristiawaty (2014), who stated that certification alone does not automatically guarantee teacher performance improvements, as intrinsic motivation and institutional support play crucial roles. For instance, in this study, teachers who actively pursued continuous professional development (CPD) showed higher levels of commitment and enthusiasm in their teaching practices. Conversely, those who viewed certification only as a financial benefit tended to maintain traditional instructional methods without significant changes.

Moreover, the role of school leadership is critical in ensuring that certified teachers remain engaged and effective. Ramdani (2018) highlights that principals who actively mentor and support teachers contribute to higher instructional quality and teacher motivation. The findings in SMA Negeri 1 Sakti support this claim, as the presence of a strong leadership culture was linked to better teacher performance and classroom engagement.

Challenges in Implementing Certification Programs

A major barrier identified in this study was the excessive administrative burden on certified teachers, which often diverted their focus from instructional improvement. This is consistent with Rasyid (2014), who found that certified teachers frequently face additional bureaucratic requirements, reducing the time available for lesson planning, student engagement, and professional development. The data from Table 2 in this study show that 45% of teachers cited excessive administrative work as a key challenge, suggesting that policy interventions should aim at simplifying documentation and reducing non-teaching responsibilities. Another challenge was the limited access to professional development opportunities, particularly at SMA Negeri 1 Mutiara. According to Crosby (Huliatunisa et al., 2021), effective teaching improvement requires ongoing training and development, rather than a one-time certification process. This is further supported by Indrawati (2022), who emphasizes that teacher certification programs should be complemented with continuous training to ensure sustained pedagogical growth.

Student Learning Outcomes and Teacher Certification

The results indicate that certified teachers positively influence student engagement and performance, but the degree of improvement depends on teaching strategies and school support. The data in Figure 2 show that student assessment scores improved across all subjects after certification, particularly in Mathematics (+10 points) and Science (+13 points). This finding aligns with Erlina (2017), who observed that certified teachers contribute to better student academic performance, especially when they employ active learning strategies.

However, some subjects, such as History and Social Studies, showed less significant improvement. This suggests that while certification improves technical subject mastery, it may not be as effective in subjects requiring critical thinking and discussion-based learning. This observation is consistent with Shobron (2015), who found that certification has a stronger impact in structured subjects like Mathematics and Science compared to humanities-based subjects.

Implications for Education Policy

Given these findings, it is evident that teacher certification alone is not a sufficient solution for improving education quality. Policymakers need to consider integrating certification with ongoing professional development, leadership training, and infrastructure improvement. As Nasution and Siahaan (2019) argue, "a strong certification system should be accompanied by mentorship programs, classroom supervision, and continuous assessment to ensure real improvements in teaching quality." Furthermore, the issue of unequal access to technology and training must be addressed. Schools in rural or under-resourced areas require additional government support to ensure that certified teachers can fully utilize their skills. Mulyasa (2019) emphasizes that teacher training should include digital literacy and adaptive teaching methods to help educators overcome resource limitations and modernize their teaching approaches.

This study contributes to the understanding of how certification affects teacher performance, but it also highlights areas for further investigation. Future research should explore:

- Long-term effects of teacher certification on student learning outcomes.
- The role of school leadership in enhancing the impact of certification.
- Comparative studies between certified and non-certified teachers to measure actual differences in instructional effectiveness.

CONCLUSIONS AND RECOMMENDATIONS

This study examined the performance of certified teachers in improving the quality of learning at SMA Negeri 1 Mutiara and SMA Negeri 1 Sakti in Kabupaten Pidie. The findings indicate that teacher certification has a positive impact on instructional quality and student learning outcomes, but its effectiveness varies depending on several factors, including teacher motivation, school leadership, professional development opportunities, and administrative workload.

The results show that certified teachers at SMA Negeri 1 Sakti exhibited better integration of student-centered learning and technology-assisted teaching compared to those at SMA Negeri 1 Mutiara, where limited access to digital tools hindered progress. While teacher motivation was found to be a key driver of performance, many teachers expressed concerns about excessive administrative burdens and limited access to continuous training, which affected their ability to fully implement innovative teaching strategies.

Additionally, the study found that school leadership plays a critical role in ensuring that certified teachers maintain high performance levels. Supportive

principals and well-structured professional development programs were linked to greater engagement and effectiveness among teachers. However, challenges such as insufficient school resources, high workloads, and inconsistent lesson planning were identified as barriers to achieving the full benefits of certification.

Overall, the study concludes that while teacher certification is an important policy tool for improving education quality, it must be accompanied by ongoing professional support, effective school leadership, and systemic improvements to maximize its impact.

To enhance the effectiveness of teacher certification and further improve learning outcomes, the following recommendations are proposed:

1. Expand Professional Development Programs
 - Schools and education authorities should provide regular training sessions, workshops, and mentoring programs for certified teachers to enhance their teaching methods and classroom management skills.
 - Certification should not be a one-time process; instead, teachers should receive ongoing support to keep up with pedagogical innovations and technological advancements.
2. Reduce Administrative Workload for Teachers
 - The government should streamline bureaucratic and reporting processes to ensure that teachers spend more time focusing on instructional activities rather than excessive paperwork.
 - Schools should implement digital record-keeping systems to minimize manual administrative tasks and increase efficiency.
3. Improve Technology Integration in Schools
 - Schools, particularly those in rural areas, should receive additional government support for digital infrastructure, including internet access, multimedia classrooms, and interactive learning platforms.
 - Teachers should be trained in technology-assisted learning methods, such as the use of online learning management systems, virtual simulations, and multimedia content to improve engagement and student performance.
4. Strengthen School Leadership and Teacher Mentorship
 - School principals and educational leaders should receive leadership training to help them provide effective teacher supervision, motivation, and support.
 - Establish mentorship programs where experienced, high-performing certified teachers can guide and support newer teachers, ensuring consistent quality in instruction.
5. Increase Student Engagement through Innovative Teaching Strategies
 - Certified teachers should be encouraged to implement active learning strategies, such as problem-based learning, cooperative learning, and project-based assignments, to improve student participation and understanding.
 - Schools should introduce student feedback mechanisms to allow students to share insights about teacher effectiveness, lesson engagement, and learning challenges.

6. Ensure Equitable Distribution of Resources Across Schools

- The government should address gaps in resource allocation by ensuring that schools in remote and underprivileged areas receive adequate funding, teaching materials, and learning facilities.
- Implement a standardized monitoring system to evaluate the impact of teacher certification across different school settings and adjust policies accordingly.

By implementing these recommendations, teacher certification can be more than just a formal qualification it can become a sustainable mechanism for continuous improvement in education quality. The combination of strong teacher motivation, professional development, school leadership, and well-equipped learning environments will contribute to a more effective, engaging, and inclusive education system for students in Kabupaten Pidie and beyond.

ADVANCED RESEARCH

Still conducting further research to learn more about Certified Teachers and Their Role in Enhancing Learning Outcomes: Challenges and Opportunities.

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