

Exploring the School Principals' Perspective on the Improvement of Teaching Quality Following Teacher Certification in Indonesia

Basilus Redan Werang^{1*}, I Made Citra Wibawa¹, Kadek Yudianta¹, Luh Sri Surya Wisma Jayanti¹, Ni Luh Gede Erni Sulindawati¹, Edmond Leonard Jim², Seli Marlina Radja Leba³

^{*1} Ganesha University of Education, Singaraja, Bali, Indonesia

² Sam Ratulangi University, Manado, North Sulawesi, Indonesia

³ Musamus University, Merauke, South Papua, Indonesia

<p>Corresponding Author Basilus Redan Werang</p> <p>Ganesha University of Education, Singaraja, Bali, Indonesia</p> <p>Article History</p> <p>Received: 27 / 05 / 2025</p> <p>Accepted: 09 / 06 / 2025</p> <p>Published: 12 / 06 / 2025</p>	<p>Abstract: Background: Despite extensive research highlighting the effectiveness of teaching-learning process in elementary schools, many studies emphasize the need for greater efforts to improve the quality of teaching—particularly after teachers completing the certification programs.</p> <p>Objective: The purpose of this study is to characterize how principals of primary schools in Southern Papua, Indonesia, perceive the influence of the teacher certification program on raising the caliber of instruction.</p> <p>Method: A quantitative research approach was employed, using a survey design to collect data from 75 elementary school principals in the region. Obtained data were subjected to the statistical analysis using descriptive quantitative analysis technique by calculating</p> <p>Findings: Descriptive quantitative analysis revealed that the majority of principals held negative perceptions of the program's impact on improving teaching quality.</p> <p>Implication for Practice and Research: These findings may be valuable for the Indonesian government in reassessing the effectiveness of the teacher certification program and exploring alternative strategies to enhance teacher professionalism—ensuring that students' rights to quality education are fully realized.</p> <p>Keywords: Certification program, school principal perception, teacher teaching quality.</p>
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Introduction

Teachers play a crucial role in ensuring the quality of education and in preparing young people to become productive members of society as they grow. For very young children, teachers are expected to inspire a love of learning and help them find their place within society (Zozh et al., 2022). From this perspective, teachers who fail to impart essential knowledge, skills, and values undermine the educational development of all students capable of learning (Werang et al., 2017). Students' poor performance likely reflects the overall low quality of teaching across Indonesian schools, highlighting the need to improve teacher competencies and instructional. In this context, the teacher certification program is seen as one of the most strategic efforts by the Indonesian government to ensure that teachers meet the necessary standards for effective teaching practices (Jalal et al., 2009).

Given the complexity of challenges facing teachers in Indonesia, a key concern for the government is how to implement effective policies and strategies that align with the national context. Indonesian Law No. 14/2005 on Teachers and Lecturers introduces a comprehensive set of reforms aimed at enhancing the quality of teaching practices, with the goal of raising the overall standard of the teaching profession. Since the teaching is fundamentally a

cultural activity, the concept of quality teaching practices should reflect the demanding and multifaceted nature of teaching—both within and beyond the classroom.

After more than two decades of implementation, Indonesia's teacher certification program is facing several serious challenges, particularly due to its seemingly limited impact on students' academic performance. On a national scale, the average academic performance of Indonesian students remains below the international average in multiple subject areas. The 2022 Program for International Student Assessment (PISA) results confirmed Indonesian pupils' poor academic performance. With average scores of 359 in reading, 366 in maths, and 383 in science, Indonesia still ranks relatively low worldwide even though its standing in the 2022 PISA assessment improved from 2018 by 5 to 6 spots in reading literacy and mathematics. Meanwhile, at the local level in Southern Papua, various studies have indicated that Indigenous Papuan students consistently lag behind their peers in other regions of Indonesia in terms of academic achievement (Werang & Leba, 2022; Werang et al., 2022; Werang et al., 2023a.b.; Werang et al. 2025a).

As the teacher certification program is intended to ensure that educators possess the necessary competencies for effective

teaching, this study seeks to describe elementary school principals' perceptions of its impact on the quality of teaching practices in Southern Papua, Indonesia. Although a growing body of research has examined teacher certification and its potential effects (e.g., [Agung et al., 2017](#); [Cruetz & Cruetz, 2014](#); [Darling-Hammond et al., 2001](#); [Haryanto et al., 2016](#); [Haynie, 2010](#); [Kane et al., 2008](#); [Kusumawardhani, 2017](#); [Ree et al., 2016](#); [The World Bank-Jakarta, 2015](#); [Utami, 2015](#); [Wray et al., 2000](#)), this study remains relevant to the mandate of Indonesian Law No. 14/2005, which seeks to enhance overall teaching quality—particularly within the context of Southern Papua—by offering new insights into school principals' perceptions of the effectiveness of the teacher certification program in improving teaching practices in elementary schools across this underrepresented region.

By investigating how principals of primary schools in Southern Papua perceive the influence of Indonesia's teacher certification program on raising the caliber of instruction, this study seeks to fill a vacuum in the literature. To guide the investigation, the following research question was posed: *“To what extent do elementary school principals in Southern Papua perceive improvements in teaching quality following teacher certification?”* To answer this question, a quantitative approach was adopted, utilizing a survey research design.

Methods

To better understand how school principals perceive the impact of the teacher certification program on improving the quality of elementary school teacher learning in South Papua, Indonesia, we employed a quantitative approach using a survey research design ([Agung et al., 2024](#); [Werang et al., 2023a.b](#)). This design was chosen based on the relevance and success of similar approaches used in recent studies ([Margunayasa et al., 2024](#); [Werang et al., 2024a.b](#); [Werang et al., 2025a.b.c.](#); [Wolomasi et al., 2024](#)).

A total of 75 elementary school principals were selected as participants using a convenience sampling technique, based on their influential role in guiding instructional leadership within their schools. In order to gauge their opinions regarding how teacher certification affects the enhancement of instruction, we modified the Classroom Assessment Practices Survey Questionnaire (CAPSQ) – Teacher Edition, which was initially created by [Gonzales \(2024\)](#). The modified instrument consisted of 17 positive statements aligned with five core qualities of effective teachers, as identified by the [National Research Council \(2001\)](#): (a) possessing deep subject matter knowledge, (b) being committed to students and their learning, (c) being capable of managing and monitoring student learning, (d) engaging in reflective teaching practices, and (e) participating as members of a broader educational community.

The inventory used a two-point scale (Have an Impact = 1, No Impact = 0). Respondents were asked to indicate their perceptions by marking (√) next to each item they either agreed or disagreed with. The questionnaire items included the following statements: (1) Certified teachers have deeper subject matter knowledge; (2) Certified teachers have a better understanding of the real-world applications of the subjects they teach; (3) Certified teachers are more capable of using diverse strategies to teach for understanding; (4) Certified teachers are more capable of using diverse learning media to teach for understanding; (5) Certified teachers are more capable of using diverse learning methods to teach for understanding; (6) Certified teachers are better at helping

students develop clear criteria for good learning practices; (7) Certified teachers are better at understanding how students develop and learn; (8) Certified teachers are more capable of helping students improve their learning process and classroom performance; (9) Certified teachers are more capable of creating learning experiences that help achieve specific goals; (10) Certified teachers are more skilled at identifying better learning opportunities for students in class; (11) Certified teachers are better at determining the degree of accomplishment of desired learning outcomes by the end of a lesson; (12) Certified teachers are better at evaluating the competence levels of students at the end of an instructional program; (13) Certified teachers are more capable of using diverse self-assessment methods to reflect on their teaching practices; (14) Certified teachers are better at using diverse problem-solving strategies to reflect on their teaching; (15) Certified teachers are more capable of providing parents with information about their child's performance in school; (16) Certified teachers are better at working collaboratively with parents to engage them in the school's activities; and (17) Certified teachers are more capable of collaborating with others to improve student learning.

To ensure participant comprehension, the questionnaire was administered in Indonesian. The collected data were then analyzed using descriptive statistical techniques, specifically by calculating the frequency and percentage of participant responses. Descriptive analysis is particularly useful for summarizing and presenting patterns in the data in a clear and straightforward manner. It allows researchers to identify general trends, highlight dominant perceptions, and provide an overall picture of how school principals view the impact of teacher certification on teaching quality.

Results

The purpose of this study is to investigate how administrators in Southern Papua, Indonesia, view the influence of the teacher certification program on raising the caliber of instruction in primary schools. As mentioned earlier, descriptive statistics were used to assess the gathered data, specifically by calculating response frequencies and percentages. Table 1 provides a summary of the main conclusions drawn from this investigation.

Table 1.The opinions of the school principal regarding the teacher certification program and how it affects the enhancement of teaching quality

No.	Items of Questionnaire	Response			
		Have an Impact		No Impact	
		Freq.	%	Freq.	%
1.	Having certified, teachers have a more-deep subject matter knowledge.	34	45.3	41	54.7
2.	Having certified, teachers have a more understanding of the real-world application of the subject they teach.	37	49.3	38	50.7
3.	Having certified, teachers are more able to use diverse learning strategies to teach for understanding.	14	18.7	61	81.3
4.	Having certified, teachers are	15	20	60	80.25

No.	Items of Questionnaire	Response			
		Have an Impact		No Impact	
		Freq.	%	Freq.	%
	more able to use diverse learning media to teach for understanding.				
5.	Having certified, teachers are more able to use diverse learning method to teach for understanding	19	25.3	56	74.7
6.	Having certified, teachers are more able to help students develop clear criteria of good learning practice.	40	53.3	35	46.7
7.	Having certified, teachers are more able to understand how students develop and learn	39	52	36	48
8.	Having certified, teachers are more able to help students improve their learning process and class performance.	37	49.3	38	50.7
9.	Having certified, teachers are more able to create learning experience for reaching specified goals.	31	41.3	44	58.7
10.	Having certified, teachers are more able to identify better learning opportunities for students in class.	36	48	39	52
11.	Having certified, teachers are more able to determine the degree of accomplishment of a desire learning outcome at the end of lesson.	38	50.7	37	49.3
12.	Having certified, teachers are more able to evaluate the level of competence of students at the end of an instructional program.	40	53.3	35	46.7
13.	Having certified, teachers are more able to use diverse method of self-assessment for reflecting on their teaching practice.	20	26.3	55	73.7
14.	Having certified, teachers are more able to use diverse problem-solving strategies for reflecting on their practice.	18	24	57	76
15.	Having certified, teachers are more able to provide information to parents about the performance of their child(ren) in school.	41	54.7	34	45.3
16.	Having certified, teachers are more able to work collaboratively with parents to engage them productively in the work of school.	56	74.7	19	25.3
17.	Having certified, teachers are more able to collaborate with others to improve student	62	82.7	13	17.3

No.	Items of Questionnaire	Response			
		Have an Impact		No Impact	
		Freq.	%	Freq.	%
	learning				

As shown in Table 1, the data revealed that 10 out of the 17 questionnaire items were perceived negatively by the majority of elementary school principals surveyed in Southern Papua, Indonesia. In contrast, the remaining 7 items were viewed positively by most respondents. Notably, only two items—Item 16 and Item 17—were overwhelmingly perceived positively, with more than 50 out of 75 principals indicating agreement. The results indicate that the teacher certification program has had limited impact on improving the quality of teaching among elementary school teachers. Although many teachers have completed and passed the certification process, they are still widely perceived as lacking mastery in essential areas of instruction. This shortfall may hinder students' understanding of the material being taught. These findings raise serious concerns about the effectiveness of the certification program in strengthening teachers' practical skills, instructional strategies, and overall classroom performance. They also point to a potential disconnect between the program's standards for certification and the actual competencies required for effective teaching.

Discussion

Quality education is essential for supporting a strong national economy (Castelló-Climent & Hidalgo-Cabrillana, 2012; Goczek et al., 2021; Ofei-Manu & Didham, 2014; Rocha et al., 2023; Runde et al., 2023), and the academic performance of a nation's youth serves as a key indicator of this relationship (Hanushek & Wößmann, 2007; Honghao et al., 2021; Jalal et al., 2009; Saini et al., 2023). From this perspective, teachers' role in fostering high-quality teaching and learning practices is crucial. Their responsibilities include promoting effective communication between teachers and students, encouraging student-to-student interaction, providing opportunities for active student participation, emphasizing time management and task focus, motivating learners through clear expectations, and respecting diverse talents and learning styles (Akram & Li, 2024; Bergmark & Westman, 2018; Bhardwaj et al., 2025; Cebelleros & Buenaventura, 2024; Karasova, 2023; Sabrifha & Darmawati, 2022; Sinaga, 2024; Sun et al., 2022).

Teacher quality is one of the most critical factors influencing students' academic achievement (Guerriero, 2014). Research indicates that students taught by ineffective teachers consistently perform worse academically than those who are taught by highly effective teachers over time (Sanders & Rivers, 1996). Because teachers play such a decisive role in shaping educational outcomes, there is increasing societal demand for high-quality teaching and learning. Meeting these expectations requires teachers to possess strong competencies in both instruction and assessment (Solheim, 2017, p. 1). To ensure that teachers are well-prepared to meet these demands, teacher certification programs play a vital role as it is designed to equip aspiring teachers with the necessary pedagogical knowledge, practical skills, and assessment strategies essential for fostering student achievement and maintaining high standards in education.

Given that students' academic performance is largely influenced by the quality of their teachers (Darling-Hammond, 2000; Fong-Yee & Normore, 2013; Goe & Stickler, 2008; Li et al.,

2014; Murity, 2016; OECD, 2001), improving teacher teaching quality remains a top priority in education policy. This study was conducted in response to the mandate outlined in Indonesian Law No. 14/2005, which aims to enhance both teacher teaching quality and the overall quality of educational services. Specifically, the study sought to explore school principals' perceptions of how the teacher certification program has influenced the improvement of teaching quality in elementary schools in Southern Papua, Indonesia. The results of data analysis showed that 10 out of the 17 questionnaire items were perceived negatively by the majority of elementary school principals surveyed in Southern Papua, Indonesia. In contrast, the remaining 7 items were viewed positively by most respondents. Notably, only two items—Item 16 and Item 17—were overwhelmingly perceived positively, with more than 50 out of 75 principals indicating agreement. The findings of this study align with those of Ree et al. (2015, pp. 4–5, 25), who reported that significant increases in government spending on teacher salaries in Indonesia—amounting to over \$5 billion annually, or more than 5% of the national budget—did not lead to corresponding improvements in student learning outcomes. Despite higher pay and increased job satisfaction among teachers, Ree et al. (2015) found no evidence of improved teacher effort in the classroom, no increased motivation to upgrade professional skills, and ultimately, no measurable impact on student achievement.

This study suggests that, despite the Indonesian government's commendable effort to recognize and reward teachers by doubling their take-home pay, teaching remains an exhausting and highly stressful profession—particularly for those working in remote schools in Southern Papua (Werang, 2015, 2018; Werang et al., 2019). While scholars and researchers from other parts of Indonesia and around the world may hold critical views regarding certified teachers in Southern Papua and their perceived inability to make a meaningful impact on teaching practices, student learning outcomes, and the overall quality of education, our experience during data collection revealed a more nuanced reality. Specifically, a lack of access to ongoing teacher training and professional development opportunities emerged as a significant barrier preventing these teachers from upgrading their instructional knowledge and skills. As learning does not end with graduation, Rahman et al. (2011) emphasized that teacher training is an ongoing process that improves over time through continuous experience and lifelong learning.

Conclusion

This study offered a closer examination of the school principals' perceptions regarding the impact of the teacher certification program on teaching quality improvement in elementary schools in Southern Papua, Indonesia. The analysis of the data indicates that the teacher certification program has not resulted in significant improvements in teaching practices. This conclusion is based on the finding that 10 out of 17 questionnaire items were perceived negatively by the majority of elementary school principals surveyed in Southern Papua, Indonesia. In contrast, the remaining 7 items were viewed positively. Notably, only two items—Item 16 and Item 17—received strong positive responses, with more than 50 out of 75 principals expressing agreement.

These findings carry both practical and theoretical implications. Practically, the Indonesian government should critically reassess the effectiveness of the teacher certification

program in improving teaching practices and consider exploring alternative or complementary strategies to enhance teacher professionalism. Doing so is essential to ensure that all students, including those in remote regions, have equitable access to quality education. Theoretically, this study contributes to the existing literature by offering insights into stakeholders' perceptions of the certification program's impact on teaching practices within the unique and under-researched context of Southern Papua.

This study is limited by its narrow geographical scope, small sample size, and reliance on a survey design and descriptive analysis techniques. These factors restrict the generalizability of the findings. To enhance the validity and applicability of the results, future research should use similar methods across broader regions and larger samples. This would provide more robust data and support more generalizable conclusions.

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