

Teacher Welfare Management and Its Implications for Improving Students' Numeracy Literacy in Indonesia: Literature Review

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Abstract, Low achievement of Indonesian students in literacy and numeracy in PISA 2022 (359 and 366 points, far below OECD average of 476-493 points) demands evaluation of factors affecting learning quality. This study analyzes the relationship between teacher welfare management and improvement of student literacy and numeracy through systematic literature review of 44 studies covering 76,990 teachers from 2019-2025. Analysis shows significant relationship between teacher welfare and student academic achievement through three mechanisms: increased teaching efficacy, positive classroom climate creation, and pedagogical innovation development. International comparison reveals significant gaps between Indonesia and developed countries like Japan (teacher salary Rp38 million vs Indonesia Rp800,000-Rp2,000,000). Implementation in Indonesia faces challenges of regional disparities, employment status inequality, and excessive workload. Comprehensive policy reform is needed including compensation standardization, holistic support programs, and longitudinal studies to understand deeper causal mechanisms.

Keywords: education management, learning quality, literacy, numeracy, teacher welfare

1. INTRODUCTION

Education in Indonesia, particularly in literacy and numeracy, still faces significant challenges. This is reflected in various national and international evaluation results. According to the 2022 Programme for International Student Assessment (PISA) results, published in December 2023, the average score for Indonesian students in reading literacy was 359 points, numeracy 366 points, and science 383 points. These figures are far below the average for member countries of the Organization for Economic Cooperation and Development (OECD), which ranges from 476 to 493 points. Furthermore, approximately 82% of Indonesian students fall below Level 2 in numeracy literacy, indicating a low level of basic mathematical skills in applying mathematical concepts in everyday life, as explained in an OECD report (Yuda & Rosmilawati, 2024).

The role of teachers is crucial in supporting educational success. Teachers not only teach but also serve as role models, educators, and mentors for students. Learning success, including in literacy and numeracy, is greatly influenced by teacher involvement. To improve numeracy, teachers can create a fun learning environment, utilize technology, and provide positive feedback. Meanwhile, to improve literacy, teachers need to motivate students, teach reading and writing skills, serve as role models, and assist students experiencing difficulties, involving parents in the process (Setiani & Wakinah, 2025).

Teacher welfare plays a crucial role in improving the quality of education. Teachers who feel financially and socially valued are more motivated to teach and mentor students (Hutasuhut et al., 2025). This welfare includes a base salary, allowances, and honorariums for additional duties such as meetings, training, and preparing test items. In Indonesia, salaries are determined by employment status; civil servant teachers receive Rp800,000–Rp2,000,000 from the central government, depending on their grade and length of service (Oktafiana, 2023). Regional honorary teachers are paid by the local government, while contract teachers receive Rp 710,000 per month from the central government (Oktafiana, 2023). Private teachers' salaries are derived from student tuition fees, around Rp 10,000–20,000 per hour, and they can receive a BKG of Rp 1,200,000 per year, although this is not evenly distributed. There is also a regional subsidy of around Rp 50,000 per month, but many private teachers, especially in madrasas, receive only Rp 50,000–300,000 per month. Only civil servant teachers receive health insurance and a pension. This inequality in welfare gives rise to jealousy because all teachers have similar responsibilities, but government attention is unequal. FSGI (2017–2018) identified four main problems in education: competency inequality, minimal teacher protection, certification distribution, and welfare. According to Lokadata, the number of teachers declined from 2014 to 2019 due to high work demands that were not balanced with well-being, potentially triggering stress (Dara et al., 2021).

Studies from various countries show that educator well-being significantly impacts student academic outcomes. For example, research conducted by Kush et al. (2021) revealed that teachers experiencing emotional stress and exhaustion tend to be less effective in teaching, which negatively impacts student achievement, particularly in reading and mathematics. Nationally, a 2024 survey by the Australian Education Union found that 78% of principals in Queensland reported a teacher shortage, leading to increased work pressure and stress for existing educators. This situation contributes to low student achievement in reading and mathematics.

Teacher well-being also impacts the quality of interactions between teachers and students. Research by Cardenal et al. (2024) showed that participatory teaching methods, influenced by teachers' emotional well-being, can foster positive relationships with students, ultimately boosting student engagement and learning outcomes. In addition, research by Grove (2024) emphasized that teachers who have good mental health are better able to create a safe and supportive learning environment, which is very important for the development of students' reading and mathematics skills.

Over the past twenty years, attention to teacher well-being has increased significantly, particularly following the COVID-19 pandemic, which has highlighted the challenges of well-being in educational settings. In their study, Dreer (2023) reviewed 44 studies involving 76,990 teachers and highlighted a strong link between teacher well-being and retention rates, the quality of teacher-student interactions, and student academic achievement. Meanwhile, a review by Aziku and Zhang (2024) showed that since 2020, most research in this area has used descriptive quantitative approaches, with less than 20% using qualitative or mixed methods. This reflects a tendency for approaches to explore the in-depth aspects of teacher well-being.

In a number of studies, psychological interventions have been reported to help reduce stress levels and burnout symptoms, although their effectiveness is often limited by the narrow context in which they are implemented. Other findings in the literature indicate that social support from colleagues and a supportive school culture play a crucial role in maintaining teacher well-being. Therefore, several publications recommend that education policies integrate approaches that target multiple levels: individuals, school institutions, and the education system as a whole, including ongoing professional training and internal support systems.

However, because the majority of studies are still correlational, more studies with robust designs and adequate funding are needed to ensure the long-term validity of these findings. Narrative literature also emphasizes the importance of an evidence-based approach in designing interventions that can improve teacher well-being while supporting student learning outcomes.

What is the relationship between managing teacher well-being and improving student literacy and numeracy skills in Indonesia, particularly in the context of low PISA 2022 results? This question is the primary focus of this study, using a literature review approach as a method to evaluate the extent to which teacher well-being management contributes to students' basic outcomes.

By exploring various scientific sources, this article analyzes the relationship between teacher well-being management strategies and the quality of learning that impacts student literacy and numeracy skills. This review also considers the challenges Indonesia faces in catching up, as reflected in its PISA 2022 scores, which are still relatively low compared to the average for OECD member countries.

2. METHOD

According to Snyder (2019), a literature review is a crucial step in building a theoretical foundation, synthesizing existing knowledge, and establishing the direction and methods for further research. He emphasized the importance of selecting appropriate sources and a systematic process to ensure the review's results are reliable and replicable. Meanwhile, Okoli and Schabram (2020) define a literature review as a systematic process for exploring, evaluating, and understanding all research evidence relevant to a specific topic. Both emphasize the importance of transparency and order in every stage of the process. Xiao and Watson (2019) view a literature review as a tool for developing conceptual maps and methodological guidelines for future research, as well as preventing unnecessary duplication of studies.

Literature Research Design

This study uses a narrative review approach to explore the relationship between teacher welfare management and improving student literacy and numeracy in Indonesia. According to Green et al. (2006), a narrative review is a comprehensive method for summarizing available literature, with the aim of providing an in-depth understanding of an issue, identifying common patterns, and building a conceptual framework. This approach was deemed appropriate because it explored various theoretical and empirical perspectives relevant to the exploratory nature of the research question.

Literature Search Strategy

The literature search was conducted in June using primary databases, namely Google Scholar and Researchgate. The keywords used were a combination of "teacher welfare," "literacy," "numeracy," and "learning quality," with a publication year filter of at least 2019 to 2025.

3. RESULTS

Teacher Welfare in Various Countries and in Indonesia

Several developed countries such as Finland, Japan, and Singapore have long been global benchmarks for superior education systems. Finland is widely known for its inclusive education system and focus on enjoyable and in-depth learning. Its holistic curriculum approach and attention to each individual's potential enable Finland to create a learning environment that supports students' harmonious cognitive and social growth (Fitria, 2024).

Meanwhile, Japan prioritizes structured education with an emphasis on high discipline. Values such as hard work, responsibility, and social solidarity are instilled from an early age throughout the educational process. As a result, Japanese students excel not only academically but also develop strong moral character. This contrasts with Singapore, which maintains a competitive and achievement-oriented education system. The curriculum there focuses on strengthening analytical skills and creativity, thus producing graduates who are ready to compete internationally (Adha et al., 2019). One key to the success of this superior education system is teacher quality. In these countries, teachers are selected through rigorous selection processes and receive comprehensive training to ensure their competence is maintained (Gunawan et al., 2024). Furthermore, rewards in the form of adequate salaries and high social status motivate teachers to continue innovating in teaching.

Improving teacher quality depends heavily on their well-being, particularly in terms of providing decent salaries. Unfortunately, many teachers in Indonesia, particularly those working in private schools and those on contractual terms, still receive wages that are far from adequate. Compared to Japan, the difference is significant. There, teachers receive an average salary of around IDR 38 million per month, and even novice teachers earn around IDR 17 million. This demonstrates that the Japanese government places the teaching profession as a vital part of national development, ensuring their welfare seriously (Mansir, 2020).

Meanwhile, Indonesia has not yet fully addressed teacher welfare. Low salaries are a major reason why this profession is less attractive to the younger generation. The teaching profession is often viewed as less prestigious than other professions, such as medicine or engineering, despite its crucial role in shaping the nation's future (Aulia et al., 2023).

More than just teaching, teachers are now required to be professionals in guiding students holistically, cognitively, emotionally, morally, and spiritually (Sugiarti in Hutasuhut et al., 2025). However, their responsibilities are increasingly burdensome, as they must also undertake additional duties such as administrative work, acting as school activity supervisors, or as homeroom teachers. This burden often interferes with their focus on fulfilling their primary role as educators (Chyquitita, 2024).

The Link between Teacher Well-Being and Teaching Performance

Research from the Oxford Wellbeing Research Centre (2024) (in Boyle, 2025) revealed that teachers' well-being directly impacts student well-being and achievement, as well as the quality of interactions within the school environment. Collie et al. (2024) found that social support, including leadership that provides freedom and positive peer relationships, is positively correlated with teacher well-being. This results in reduced intentions to leave the

profession and increased teacher retention rates. A meta-analysis conducted by Dreer and Gouasé (in Avola, 2025) showed that mindfulness-based intervention programs for teachers are effective in improving well-being and reducing the risk of burnout, which is largely influenced by the positivity element (PERMA-H: Positivity, Engagement, Relationships) in teacher well-being.

A systematic study by Collie (2024) showed that time pressure, disruptive student behavior, and excessive administrative workload significantly reduce teacher morale and effectiveness. Conversely, research by Chan et al. (2021) revealed that role clarity, emotional support, and freedom in teaching are crucial for reducing stress and increasing teacher efficacy during the pandemic, which impacts teaching quality. Professional training and coaching programs, such as classroom management and mentoring, have been shown to improve teacher psychological outcomes and teaching quality, including in literacy and numeracy methods.

The Influence of Teacher Well-Being on Student Learning Outcomes

A study by Wibowo et al. (2020), which analyzed PISA 2018 data (12,089 students, 397 schools), showed that school climate, including teacher support, has a significant impact on student learning outcomes in Indonesia. The results of this study confirm that improving teacher well-being (as part of the school climate) has a positive impact on student achievement. A study by UNESA (2024) also emphasized that teacher well-being encompasses psychological, social, and professional elements, which influence teaching creativity and motivation, thus impacting student learning quality.

Laksana et al. (2024) in a study at an elementary school in Golewa Regency stated that with guidance for teachers in designing literacy and numeracy learning, there was a significant increase in student understanding. This indicates that the professional support provided to teachers enables them to develop quality teaching methods, which in turn improves student learning outcomes. Furthermore, a CAR study conducted at an elementary school in Nabire (Hidayatillah et al., 2023) showed an increase in student achievement in mathematics by integrating literacy and numeracy into the learning process, which demonstrates the importance of the role of qualified teachers in this method.

4. DISCUSSION

Theoretical and Practical Implications

This literature review highlights the complex relationship between teacher well-being and student academic achievement, particularly in literacy and numeracy. Comparisons with

education systems in countries such as Finland, Japan, and Singapore reveal significant gaps in the management of teacher well-being. In these countries, the teaching profession is considered prestigious and rewarded through adequate compensation, such as in Japan, where the average teacher salary is around IDR 38 million per month. Conversely, in Indonesia, the sharp disparity in well-being between civil servant (PNS), contract teachers, and private teachers has fueled a "cycle of poverty" in education, where teacher well-being negatively impacts the quality of student learning.

Mechanisms of Teacher Well-being on Learning Outcomes

From the various literature analyzed, several mechanisms were identified that explain how teacher well-being contributes to improved student literacy and numeracy:

1. **Psychological Mechanisms:** Teachers in good psychological health tend to have high self-efficacy, which strengthens their ability to manage their classrooms and develop adaptive learning strategies. Research by Li et al. (2022) shows that teachers' positive emotions influence their daily well-being, which in turn impacts their sensitivity to students' learning needs.
2. **Social-Emotional Mechanisms:** Teachers' emotional well-being fosters a positive and inclusive classroom atmosphere. A study by Cardenal et al. (2024) emphasized that participatory teaching that stems from a healthy emotional state can increase student participation, particularly in literacy and numeracy subjects.
3. **Pedagogical Mechanisms:** Teachers with well-being are more open to innovation in learning. Laksana et al. (2024) noted that teachers who receive professional support are able to design more contextual and effective literacy and numeracy learning models, ultimately improving student understanding.

Implementation Challenges in the Indonesian Context

However, the implementation of teacher welfare management in Indonesia still faces a number of significant structural obstacles, including:

1. **Disparities in region and employment status,** differences in welfare between teachers working in urban and rural areas, as well as between civil servant, contract, and private teachers, contribute to imbalances in motivation and teaching quality. Private teachers in some areas earn only between Rp 50,000 and Rp 300,000 per month, far from adequate to support professionalism.
2. **High non-teaching workload:** many teachers in Indonesia are burdened with administrative tasks and reports that are not directly related to the teaching and learning process. Findings by Collie (2024) indicate that excessive administrative burdens can

significantly reduce teacher effectiveness in the classroom.

3. Lack of an integrated support system. Unlike developed countries that have integrated psychological, professional, and financial support systems, Indonesia still exhibits a fragmented approach, making it difficult for teachers to obtain consistent and sustainable support.
4. Implications for education policy: Based on the findings of the various studies reviewed, several policy directions can be considered to improve teacher welfare and simultaneously strengthen students' literacy and numeracy skills:
 4. National teacher compensation reform: standardizing minimum salaries for all teachers in Indonesia, adjusted to the minimum living wage (KHL) for each region. Furthermore, providing performance-based allowances can be a driving force for improving the quality of learning.
 5. Providing holistic support programs: policies need to encourage the establishment of integrated support programs that include psychological support, professional development, and financial incentives. Mentoring and coaching programs focused on literacy and numeracy teaching should be part of the ongoing training system.
 6. Investing in infrastructure and digitizing administration: reducing the administrative burden on teachers can be achieved through digitizing reporting processes and assigning dedicated administrative staff to schools, allowing teachers to focus more on core pedagogical tasks.

5. CONCLUSION

The results of this literature review confirm the strong link between teacher well-being and improvements in student literacy and numeracy skills in Indonesia. When compared with education systems in other developed countries, a striking gap in the management of teacher well-being is evident. Countries such as Finland, Japan, and Singapore place the teaching profession in a strategic position with high social respect and adequate compensation. In contrast, Indonesia continues to grapple with structural challenges that hinder the maximization of teachers' role in supporting student learning outcomes.

Several systemic barriers continue to be faced, ranging from disparities between regions and teacher employment status, disproportionate administrative workloads, to the lack of comprehensive support systems within schools. Addressing these challenges requires comprehensive policy reforms, including the development of national compensation standards, the development of holistic mentoring programs, and increased investment in educational infrastructure that supports teacher well-being.

Going forward, research on teacher well-being in Indonesia requires a more in-depth approach, particularly through large-scale longitudinal studies, exploration of diverse local conditions, and the application of mixed methods to more fully uncover the causal relationship between teacher well-being and student literacy and numeracy achievement.

In other words, improving teacher welfare is not merely about improving working conditions, but also a strategic step in building the foundation for superior national education. Effective management of teacher welfare is a key element in achieving the target of improving literacy and numeracy quality as envisioned in the national education vision. Strong political commitment and sustained investment in teacher welfare will be key determinants in driving the transformation of Indonesia's education system to become globally competitive.

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