

SELF-EFFICACY OF TEACHERS IN THE NORTH KALIMANTAN BORDER AREA

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ABSTRACT

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Teacher self-efficacy plays a crucial role in determining teachers' confidence in managing classrooms, implementing effective instructional strategies, engaging students, and achieving educational goals. This study aimed to describe the level of self-efficacy among teachers working in the border area of North Kalimantan, specifically in Tarakan City. A quantitative descriptive research design was employed involving 20 teachers selected using purposive sampling. Data were collected using the 12-item Teacher Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Hoy. The instrument demonstrated satisfactory psychometric properties, with all items meeting the validity criterion ($p < 0.05$) and a Cronbach's alpha coefficient of 0.937, indicating excellent reliability. Descriptive statistical analysis was conducted using frequency, percentage, mean, and standard deviation. The findings revealed that all respondents (100%) demonstrated a moderate level of self-efficacy, indicating adequate confidence in carrying out their professional responsibilities despite the educational challenges associated with border areas. Among the three dimensions assessed, classroom management achieved the highest mean score ($M = 3.96$), followed by student engagement ($M = 3.95$) and instructional strategies ($M = 3.95$). These results suggest that teachers possess relatively strong confidence in maintaining an effective learning environment but still require continuous professional development to strengthen instructional practices and student engagement. The study highlights the importance of supportive educational policies, school leadership, and ongoing professional training to enhance teacher self-efficacy and improve the quality of education in geographically disadvantaged regions.



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INTRODUCTION

Teachers are universally recognized as the cornerstone of educational quality because they directly influence students' academic achievement, personal development, and lifelong learning outcomes. Numerous international studies have demonstrated that teachers represent the most influential school-related factor affecting students' learning performance, exceeding the contributions of curriculum, facilities, or educational technology (Hattie, 2009; Darling-Hammond, 2017; OECD, 2020). Beyond delivering academic content, teachers serve as facilitators, mentors, motivators, counselors, and role models who shape students' cognitive, social, and emotional development (UNESCO, 2023). Consequently, improving teacher quality has become a global priority for governments seeking to achieve equitable and sustainable education.

Despite their strategic role, teachers increasingly encounter complex professional demands. Besides instructional responsibilities, teachers are expected to implement curriculum reforms, integrate digital technologies into learning, conduct student assessments,

complete administrative tasks, collaborate with parents, and continuously improve their professional competencies (Collie, Shapka, & Perry, 2012; Skaalvik & Skaalvik, 2017). These responsibilities become substantially more challenging in geographically isolated and border regions where educational infrastructure, internet access, learning resources, and professional development opportunities remain limited (UNESCO, 2022). Such conditions require teachers not only to possess strong pedagogical competence but also psychological resilience that enables them to maintain effective teaching despite various constraints.

Indonesia faces considerable disparities in educational development because of its geographical characteristics as the world's largest archipelagic country. Teachers serving in frontier, outermost, and underdeveloped (3T) regions frequently experience inadequate facilities, transportation barriers, limited access to educational technology, and insufficient opportunities for continuous professional development (Ministry of Education, Culture, Research and Technology, 2024). One of these strategic regions is North Kalimantan Province, which borders Malaysia and presents unique educational challenges associated with geographical isolation and uneven infrastructure. Within this province, Tarakan City functions as an educational hub serving surrounding border communities. According to the Indonesian Ministry of Education, approximately 5,064 teachers were employed in Tarakan across kindergarten, elementary, junior high, and senior high schools in 2025 (Ministry of Education, 2025). Although these teachers demonstrate remarkable commitment to education, they must perform multiple professional responsibilities under conditions that differ substantially from those experienced by teachers in metropolitan areas.

One of the most important psychological resources enabling teachers to perform effectively under challenging conditions is self-efficacy. Bandura (1997) defined self-efficacy as individuals' beliefs regarding their capability to organize and execute the actions required to achieve desired outcomes. Unlike general self-confidence, self-efficacy reflects context-specific judgments concerning one's ability to perform particular tasks successfully. Individuals with strong self-efficacy tend to demonstrate greater persistence, resilience, motivation, and willingness to overcome obstacles because they believe their efforts will ultimately produce positive results (Bandura, 1986, 1997). Consequently, self-efficacy has become one of the central concepts in educational psychology and teacher professional development.

Teacher self-efficacy specifically refers to teachers' beliefs in their ability to facilitate student learning, implement effective instructional strategies, manage classroom behavior, motivate students, and overcome teaching-related challenges (Tschannen-Moran & Hoy, 2001). Teachers with higher self-efficacy generally adopt more innovative instructional approaches, demonstrate stronger classroom management skills, adapt teaching strategies according to students' diverse needs, and exhibit greater enthusiasm toward professional development (Holzberger, Philipp, & Kunter, 2013). Moreover, teacher self-efficacy has consistently been associated with improved instructional quality, stronger teacher commitment, greater job satisfaction, and better student learning outcomes (Caprara et al., 2006; Zee & Koomen, 2016). Therefore, strengthening teachers' efficacy beliefs represents an essential strategy for improving educational quality.

Another important aspect of teacher self-efficacy is its protective role against occupational stress. Teaching has long been recognized as one of the most psychologically demanding professions because educators simultaneously manage instructional responsibilities, student

discipline, administrative work, curriculum implementation, and interactions with parents and school administrators (Kyriacou, 2001; Skaalvik & Skaalvik, 2017). Chronic occupational stress may reduce teaching effectiveness, lower job satisfaction, and increase burnout, absenteeism, and turnover intentions (Collie et al., 2012). Teachers possessing stronger self-efficacy beliefs generally perceive workplace challenges as manageable rather than overwhelming, enabling them to cope more effectively with stressful situations (Bandura, 1997).

Previous empirical studies consistently demonstrate the significant contribution of teacher self-efficacy to educational effectiveness. Holzberger et al. (2013) found that teachers with higher self-efficacy provide better instructional quality and consequently improve students' academic achievement. Likewise, Zee and Koomen (2016), through a systematic review of international studies, concluded that teacher self-efficacy positively influences classroom management, instructional innovation, teacher well-being, and student motivation. Klassen and Chiu (2010) further reported that teacher self-efficacy is negatively associated with emotional exhaustion while positively influencing professional commitment and job satisfaction. Similarly, Skaalvik and Skaalvik (2016) demonstrated that low teacher self-efficacy contributes to emotional burnout and increases teachers' intentions to leave the profession. Collectively, these findings highlight self-efficacy as one of the strongest psychological predictors of teacher performance and resilience.

The multidimensional nature of teacher self-efficacy has been conceptualized by Skaalvik and Skaalvik (2012), who proposed seven interconnected domains, namely efficacy in influencing school decision-making, utilizing school resources, instructional practice, classroom discipline, parental involvement, community engagement, and creating a positive school climate. These dimensions illustrate that teacher self-efficacy extends beyond classroom instruction and encompasses broader professional responsibilities within schools and local communities. Such competencies become particularly important for teachers working in border areas, where educational success often depends on strong collaboration among schools, families, and surrounding communities.

Teachers working in border regions frequently perform multiple professional roles that extend beyond conventional classroom instruction. Limited educational resources require teachers to become innovators, community leaders, facilitators, and educational advocates simultaneously. Consequently, teachers' beliefs regarding their professional capabilities become essential for maintaining instructional quality despite infrastructural limitations. Teachers with stronger self-efficacy are generally more capable of developing creative teaching strategies, utilizing limited learning resources effectively, motivating students, and adapting to educational challenges (Bandura, 1997; Holzberger et al., 2013).

Although teacher self-efficacy has received considerable international scholarly attention, empirical evidence concerning teachers serving in Indonesian border regions remains limited. Existing Indonesian studies have predominantly focused on teacher performance, job satisfaction, organizational commitment, or burnout within urban educational settings, while little attention has been devoted to teachers working in geographically isolated border areas. Moreover, research specifically examining teacher self-efficacy in North Kalimantan, particularly in Tarakan City, remains scarce despite its strategic importance as one of Indonesia's border education centers. This gap limits policymakers' understanding of teachers' psychological readiness and professional needs within frontier educational

environments.

Therefore, this study aims to examine the self-efficacy of teachers working in the North Kalimantan border area, specifically in Tarakan City. By describing teachers' efficacy beliefs across multiple professional dimensions, this research provides empirical evidence regarding the psychological capacity of educators serving in geographically challenging contexts. The findings are expected to contribute to the growing literature on teacher psychology, while simultaneously providing practical recommendations for policymakers, educational administrators, and teacher development institutions in designing context-sensitive professional development programs. Ultimately, strengthening teacher self-efficacy is expected to enhance instructional quality, improve teacher well-being, and support the equitable development of education in Indonesia's border regions.

METHOD

This study employed a quantitative descriptive research design to examine the self-efficacy of teachers working in the border area of North Kalimantan, specifically in Tarakan City. A quantitative descriptive approach is appropriate for describing the characteristics and distribution of a particular phenomenon objectively without manipulating the research variables (Creswell & Creswell, 2018; Saunders, Lewis, & Thornhill, 2023). Participants were selected using a purposive sampling technique, whereby respondents were chosen based on predefined criteria relevant to the research objectives (Etikan & Bala, 2018). The final sample consisted of 20 teachers actively teaching in schools located in the North Kalimantan border area. Data were collected using the Teacher Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Hoy (2001), comprising 12 items measuring three dimensions of teacher self-efficacy: instructional strategies, classroom management, and student engagement. Responses were rated using a five-point Likert scale ranging from strongly disagree to strongly agree. Descriptive statistical analyses, including frequency distributions, percentages, means, and standard deviations, were employed to describe the overall profile of teachers' self-efficacy (Hair et al., 2022; Field, 2018).

Prior to data collection, the research instrument underwent psychometric evaluation to ensure its validity and reliability. Construct validity was assessed using Pearson's product-moment correlation, and all 12 items produced significance values below 0.05, indicating satisfactory item validity (Hair et al., 2022). Instrument reliability was evaluated using Cronbach's alpha coefficient, resulting in a value of **0.937**, which indicates excellent internal consistency and exceeds the recommended threshold of 0.70 for social science research (Taber, 2018; Hair et al., 2022). The use of a valid and reliable instrument strengthens the credibility and accuracy of the findings by ensuring that teachers' efficacy beliefs are measured consistently across respondents (Boateng et al., 2018). Following data screening, the results were interpreted descriptively to provide an empirical overview of the level of teacher self-efficacy among educators serving in geographically challenging border schools, thereby offering evidence that may inform future teacher professional development and educational policy in frontier regions (OECD, 2020; UNESCO, 2023).

RESULT AND DISCUSSION

Teacher Self-Efficacy among Teachers in the North Kalimantan Border Area

This study examined the level of teacher self-efficacy among teachers serving in the border area of North Kalimantan, specifically in Tarakan City. The findings are presented through descriptive statistical analysis to describe teachers' overall self-efficacy and its three dimensions: student engagement, instructional strategies, and classroom management. Rather than presenting the statistical results separately from the discussion, the findings are interpreted immediately in relation to previous empirical studies and theoretical perspectives to provide a comprehensive understanding of teacher self-efficacy in border-area educational settings.

Table 1.
Distribution of Teacher Self-Efficacy Levels

Variable	Category	n	%
Teacher Self-Efficacy	Moderate	20	100.0

Source: Processed primary data

The descriptive analysis indicates that all participating teachers (100%) were classified within the moderate level of teacher self-efficacy. This finding suggests that teachers working in the North Kalimantan border area generally possess sufficient confidence in their professional capabilities, although there remains considerable room for further improvement. Teachers with moderate self-efficacy believe that they are capable of carrying out instructional responsibilities, managing classroom activities, and facilitating student learning despite facing numerous educational challenges associated with border regions.

These findings are consistent with Bandura's Social Cognitive Theory, which explains that self-efficacy represents an individual's belief in his or her capability to organize and execute actions required to achieve desired outcomes (Bandura, 1997). Rather than reflecting actual competence, self-efficacy determines how individuals approach difficult situations, persist when encountering obstacles, and regulate emotional responses under stressful conditions. Teachers with moderate self-efficacy generally demonstrate adequate confidence in performing their professional roles; however, they may still hesitate when confronted with highly demanding instructional situations or rapid educational changes.

The moderate level of self-efficacy observed in this study may reflect the unique characteristics of teachers working in border areas. Schools located in geographically isolated regions often experience limitations in educational infrastructure, professional development opportunities, teaching resources, and technological access. Nevertheless, teachers continue to perform their instructional duties while adapting to contextual constraints. Such conditions require not only pedagogical competence but also psychological resilience and confidence in one's professional capabilities. Previous research has demonstrated that teachers serving in disadvantaged areas often develop adaptive instructional practices despite limited institutional support (Darling-Hammond et al., 2017).

From the perspective of teacher effectiveness, self-efficacy has consistently been identified as one of the strongest predictors of instructional quality. Teachers with stronger efficacy beliefs tend to implement more innovative teaching strategies, exhibit greater persistence when students experience learning difficulties, and demonstrate higher commitment toward improving educational outcomes (Tschannen-Moran & Hoy, 2001). Similarly, Zee and Koomen (2016) concluded through a comprehensive review that teacher self-efficacy positively influences classroom management, instructional effectiveness, teacher well-being, and students' academic achievement.

The present findings also support the work of Klassen, Durksen, and Tze (2014), who reported that teachers possessing stronger efficacy beliefs generally experience greater job satisfaction, lower occupational stress, and stronger commitment to their profession. In

challenging educational environments such as border regions, self-efficacy functions as a psychological resource enabling teachers to maintain instructional effectiveness despite external limitations.

Although all respondents were categorized within the moderate category, this finding should not necessarily be interpreted negatively. Instead, it indicates that teachers have established a solid foundation of professional confidence upon which further development can be built. Continuous professional development programs, mentoring systems, collaborative learning communities, and supportive educational leadership are expected to strengthen teachers' efficacy beliefs and subsequently improve instructional quality.

Dimensions of Teacher Self-Efficacy

To provide a more comprehensive understanding of teachers' efficacy beliefs, descriptive statistics were calculated for the overall teacher self-efficacy score and for each of its three dimensions: student engagement, classroom management, and instructional strategies. These dimensions represent the core components of the Teacher Sense of Efficacy Scale (TSES) proposed by Tschannen-Moran and Hoy (2001), reflecting teachers' confidence in motivating students, managing classroom behavior, and implementing effective teaching practices. The descriptive analysis includes the minimum and maximum scores, mean values, and standard deviations, thereby illustrating the distribution of teachers' self-efficacy across each domain. The results are presented in Table 2.

Table 2.
Descriptive Statistics of Teacher Self-Efficacy Dimensions

Dimension	Minimum	Maximum	Mean	SD
Teacher Self-Efficacy	31	60	47.60	6.739
Student Engagement	2	5	3.99	0.519
Classroom Management	2	5	3.96	0.619
Instructional Strategies	2	5	3.95	0.428

Source: Processed primary data

Table 2 demonstrates that teachers reported relatively similar scores across the three dimensions of teacher self-efficacy. Among these dimensions, classroom management obtained the highest average score (Mean = 3.96), followed closely by student engagement (Mean = 3.99) and instructional strategies (Mean = 3.95). Although the differences between dimensions were relatively small, the findings indicate that teachers expressed greater confidence in managing classroom behavior than in implementing instructional innovations or promoting active student participation.

The predominance of classroom management is understandable considering the contextual characteristics of schools in border regions. Teachers working in remote schools frequently encounter heterogeneous classrooms, limited educational resources, and diverse student backgrounds. Consequently, maintaining classroom order becomes a fundamental prerequisite for effective teaching. Successful classroom management enables teachers to establish positive learning environments where instructional activities can proceed efficiently despite external constraints.

These findings are consistent with the multidimensional conceptualization of teacher self-efficacy proposed by Tschannen-Moran and Hoy (2001), who identified three essential domains: efficacy for instructional strategies, efficacy for classroom management, and efficacy for student engagement. Each dimension contributes uniquely to teachers' overall

professional confidence and instructional effectiveness. The relatively balanced scores observed across these dimensions suggest that teachers perceive themselves as reasonably competent in all major aspects of classroom practice.

The prominence of classroom management also aligns with the findings of Wang, Hall, and Rahimi (2015), who demonstrated that effective classroom management represents one of the strongest indicators of teacher efficacy because it directly influences classroom climate, student discipline, and learning productivity. Teachers who believe they can successfully regulate classroom behavior generally experience fewer disciplinary problems and create more supportive learning environments.

Although classroom management received the highest score, the dimensions of instructional strategies and student engagement should receive greater institutional attention. Contemporary education increasingly emphasizes student-centered learning, digital pedagogy, collaborative learning, and differentiated instruction. Teachers serving in border regions may require additional professional support to strengthen these competencies, particularly considering rapid technological developments in education.

The relatively moderate score for instructional strategies suggests that teachers still encounter challenges when adapting instructional methods to diverse student needs. This finding supports previous studies indicating that instructional efficacy is highly dependent upon continuous professional learning and access to educational resources (OECD, 2020). Teachers who receive sustained professional development generally demonstrate greater confidence in designing innovative learning experiences.

Likewise, the student engagement dimension reflects teachers' confidence in motivating students to participate actively in classroom learning. Student engagement has become increasingly important because active participation contributes significantly to academic achievement, intrinsic motivation, and long-term learning outcomes. According to Holzberger, Philipp, and Kunter (2013), teachers with stronger efficacy beliefs are more likely to establish emotionally supportive classroom environments that encourage student participation and learning autonomy.

The findings further suggest that strengthening teacher self-efficacy requires systemic educational support rather than relying solely on individual teachers' motivation. Educational leadership, mentoring programs, collaborative professional learning communities, and continuous pedagogical training all contribute to the development of stronger efficacy beliefs (Skaalvik & Skaalvik, 2017). Particularly in border regions, institutional support becomes increasingly important because teachers often face professional isolation and limited opportunities for career development.

Furthermore, UNESCO (2023) emphasizes that strengthening teachers' professional competence should be accompanied by efforts to improve teachers' psychological well-being, professional autonomy, and access to lifelong learning opportunities. Such comprehensive support enables teachers to develop stronger professional identities and greater confidence in responding to educational challenges.

Overall, the present findings demonstrate that teachers in the North Kalimantan border area possess adequate levels of professional confidence despite working under geographically challenging conditions. Their strongest confidence lies in classroom management, indicating their ability to maintain productive learning environments even with limited educational resources. Nevertheless, continued investment in professional development remains essential

to strengthen instructional strategies and student engagement competencies. Enhancing teacher self-efficacy through systematic institutional support will not only improve teachers' professional performance but also contribute to higher educational quality and better student learning outcomes in Indonesia's border regions.

CONCLUSION

This study found that teachers working in the North Kalimantan border area generally demonstrated a moderate level of self-efficacy, indicating that they possess sufficient confidence in performing their professional responsibilities despite the educational challenges associated with remote and border-region schools. Among the three dimensions of teacher self-efficacy, classroom management recorded the highest mean score, followed by student engagement and instructional strategies. These findings suggest that teachers are particularly confident in maintaining an orderly and supportive classroom environment, although there remains considerable opportunity to strengthen their instructional innovation and strategies for actively engaging students in the learning process.

The findings highlight the importance of strengthening teacher self-efficacy through continuous professional development, supportive school leadership, collaborative learning communities, and equitable access to educational resources, particularly in geographically disadvantaged regions. Enhancing teachers' efficacy beliefs is expected to improve instructional quality, classroom effectiveness, student engagement, and overall educational outcomes. Therefore, educational stakeholders should prioritize policies and programs that foster teachers' professional competence and psychological resilience, enabling them to deliver high-quality education and contribute to sustainable educational development in Indonesia's border areas.

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