Bridging Teacher and Student Success: Investigating Job Satisfaction and Self-Efficacy in Islamic and Non-Islamic Schools in Indonesia

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Although teacher job satisfaction and self-efficacy are widely recognised as important for student learning and well-being, little is known about how their effects differ across educational contexts. This study examines how these factors shape student outcomes in Indonesian Islamic (IS) and non-Islamic/general (NS) secondary schools. Using a two-stage stratified sampling method, data were collected from 1,319 students in 64 classrooms, and multigroup and multilevel path analysis (Mplus 8.10) was conducted to assess cross-level relationships. The findings show clear differences between school types. In NS, teacher job satisfaction (TCJOBS) directly predicted student achievement, whereas in IS, its effect operated indirectly through student motivation. Teacher self-efficacy (TCEFF) directly improved achievement in IS, but in NS, it influenced achievement indirectly through TCJOBS. Job status strongly predicted TCJOBS, with permanent teachers reporting higher satisfaction, and gender differences showed higher self-efficacy among female teachers. While TCJOBS and TCEFF were not directly linked to student well-being or anxiety, higher student well-being consistently enhanced achievement and reduced anxiety in both school systems. This study demonstrates how teacher-related factors operate differently across educational frameworks, offering important insights for targeted policy and professional development.

Keywords: Indonesia, Islamic and non-Islamic education, job satisfaction, self-efficacy, learning, wellbeing

Introduction

In the past decade, international research has highlighted the critical influence of teacher job-related attitudes, in shaping educational effectiveness. In particular, job satisfaction, described as an individual's overall evaluation of their job and sense of fulfilment (Locke, 1976), and self-efficacy, defined as one's belief in their ability to perform tasks and achieve goals (Bandura, 1997). Studies across general school contexts, including China, Australia, Finland, Canada, and Indonesia, collectively support this claim. The studies highlight that teachers who report high levels of job satisfaction and self-efficacy are not merely happier in their roles; they are demonstrably more effective at fostering environments that are beneficial to learning (Gu & Zhou, 2020; Wula et al., 2020; Hoque et al., 2023; Hajovsky et al., 2020; Muliati et al., 2022; Perera & John, 2020). The benefits of positive teacher attitudes extend beyond academic performance to encompass students' emotional and psychological well-being. Research demonstrates that satisfied and confident educators are more

effective at creating calm, supportive classroom environments that enhance both learning experiences and achievement (Bosica, 2022; Hettinger et al., 2023; Toropova et al., 2021; Wartenberg et al., 2023). This pattern is also evident in specific contexts such as Islamic education in Indonesia. In these settings, teachers with high levels of professional fulfilment and self-efficacy significantly reduce student anxiety and increase motivation to learn, thereby improving academic performance (Sabrina et al., 2023; Tanjung, 2021; Yulihardi et al., 2023). These findings affirm a universal understanding that fostering positive teacher attitudes is crucial for improving student outcomes across all learning contexts.

Furthermore, the Organisation for Economic Co-operation and Development (OECD, 2014), through the Teaching and Learning International Survey (TALIS), argues that the impact of teacher job satisfaction and self-efficacy on student outcomes is not uniform but varies across educational contexts and their cultural and systemic features. This variation is particularly evident in countries such as Indonesia, which have both general (non-Islamic) and Islamic schools (Sirozi, 2004; Stern & Smith, 2016). General schools focus on a standardised curriculum aimed at academic achievement, while Islamic schools embed religious values throughout the curriculum and school culture, including subjects such as Qur'anic studies, Islamic jurisprudence, and Arabic (Amzat, 2022; Kosim et al., 2023; Yafiz, Al-Muttar, et al., 2022). Religiosity in Islamic schools is a key contextual factor shaping teachers' professional attitudes (Bal & Kökalan, 2021; Marisa et al., 2024). The schools' religious ethos creates a distinctive climate that influences teachers' roles and pedagogical practices. This spiritually rich environment can enhance teachers' job satisfaction (Bal & Kökalan, 2021; Yafiz, Yousif Oudah Al-Muttar, et al., 2022) and self-efficacy (Marisa et al., 2024; Tehranian et al., 2025), which in turn shapes their teaching practices and interactions with students, ultimately impacting student outcomes.

Beyond school settings, employment conditions also shape teachers' professional attitudes (Song et al., 2020; Topchyan & Woehler, 2021). In Indonesia, many teachers, particularly those in private schools, work as *guru honorer* (non-permanent teachers) in privately run, non-profit institutions. These teachers often receive low salaries and lack the benefits available to permanent public-school teachers (Afkar et al., 2020; García & Han, 2022). Evidence from studies in Greece and Italy further supports this claim, showing that permanent teachers, who typically receive more stable salaries and better employment conditions, report higher job satisfaction and stronger self-efficacy, which enhance their confidence, professional commitment, and capacity to create effective learning environments (Capone & Petrillo, 2020; Glaveli et al., 2022). These conditions highlight the need to investigate and compare how job-related attitudes influence student outcomes in Indonesia's Islamic and general (non-Islamic) school systems. They also underscore the importance of examining how contextual factors, such as employment conditions teachers' shape job satisfaction and self-efficacy differently across these two educational settings, advancing existing research on teacher effectiveness and educational outcomes.

Thus, to address this gap, the current study formulates the following specific research questions:

1. How do teacher job satisfaction and self-efficacy in Islamic and non-Islamic (general) schools relate to student well-being, learning attitudes, and academic achievement?
2. How do contextual factors influence teachers' job satisfaction and self-efficacy in different educational settings? And what are the interrelationships among the variables?

Using a multigroup and multilevel path analysis to account for nested data and differences across groups (McArdle & Hamagami, 2013), this examines how teacher job satisfaction and self-efficacy influence student outcomes in Islamic and non-Islamic Indonesian schools. Specifically, it also investigates whether these teacher attitudes affect students' academic performance, learning experiences, and emotional well-being differently across the two school contexts. This study adopts several definitions to clarify the key constructs. Teacher professional attitudes refer to teachers' satisfaction with their roles and their confidence in their professional abilities, captured through measures of job satisfaction and self-efficacy. Student well-being is understood as students' emotional health within the school environment, reflected in high levels of happiness. Learning attitudes describe students' dispositions toward educational activities, including their intrinsic motivation to learn and their anxiety experienced in academic tasks. Finally, academic performance is defined as the measurable outcome of student learning, assessed through standardised tests in core subjects. The study's findings are expected to offer important insights into how teacher job-related attitudes influence students' experiences and achievement in both Islamic and non-Islamic schools. These insights will inform policy and practice, particularly in strengthening teacher support, professional development, and resource allocation, contributing to improved educational outcomes across Indonesia's diverse school contexts.

Indonesia's Islamic and General Schools: Differences and Teacher Challenges

Indonesia's education system is characterised by a dual structure of Islamic and general (non-Islamic) schooling, administered by two separate ministries (OECD/ADB, 2015). This arrangement stems from historical debates between Islamic and nationalist leaders over the role of education in meeting both national and spiritual needs (Sirozi, 2004). Islamic schools fall under the Ministry of Religious Affairs (MoRA), while General schools are overseen by the Ministry of Education and Culture (MoEC), with 16% of schools categorised as Islamic and 84% as general (non-Islamic). Despite this administrative divide, both systems follow the same national regulations, including curriculum standards, teacher quality requirements, and the academic calendar, to promote consistent and equitable educational quality across school types (Stern & Smith, 2016). However, notable disparities persist. General schools implement a national curriculum that prioritises academic subjects and includes only a single compulsory religious education component. In contrast,

Islamic schools integrate the national curriculum with extensive Islamic studies, such as Qur'anic studies, Fiqh, and Arabic, and, in the case of Madrasah and Pesantren, focus predominantly on religious instruction (Kosim et al., 2023).

Differences in teacher employment further reinforce inequities between the two school sectors. In Islamic schools, 81% of teachers are non-civil servants or non-permanent staff, leaving only 19% in secure public-sector positions, a pattern that limits salary stability, benefits, and long-term career prospects (ADB, 2014; Bahri et al., 2018; Muhajir, 2016). In contrast, general schools employ a substantially larger proportion of public-sector and permanent teachers who receive higher wages, more comprehensive employment benefits, and wider access to government-funded certification, professional development, and promotion pathways (Afkar et al., 2020; García & Han, 2022; Kusumawardhani, 2017; World Bank, 2019). These structural differences, combined with the strong role of religiosity in Islamic school governance (Amzat, 2022; Yafiz, Al-Muttar, et al., 2022), create uneven working conditions that influence teachers' job satisfaction, self-efficacy, and capacity to deliver high-quality instruction (Song et al., 2020; Topchyan & Woehler, 2021). Addressing these disparities is therefore critical for ensuring equitable learning opportunities and improving educational quality across all school contexts in Indonesia.

Literature Review

Concept of Teacher Job Satisfaction and Self-Efficacy

Educational research consistently shows that teachers' professional beliefs and attitudes play a central role in shaping effective teaching and learning (OECD, 2014; Locke, 1969; Zembylas & Papanastasiou, 2004; Hoque et al., 2023; Toropova et al., 2021; Bandura, 1991; Emiru & Gedifew, 2024; Li, 2023). According to the TALIS framework (OECD, 2014), these beliefs reflect teachers' emotional and behavioural orientations toward their work and their relationships with the schools as organisation, ultimately influencing pedagogical practices and student outcomes. Two key dimensions underpin these professional attitudes of job satisfaction and self-efficacy. Job satisfaction, grounded in Locke's (1969) definition and further elaborated by Zembylas and Papanastasiou (2004), refers to the positive emotional state teachers experience when they feel fulfilled and supported in their roles. High job satisfaction is strongly linked to enthusiasm, commitment, and teaching effectiveness, while dissatisfaction can undermine motivation and classroom quality (Hoque et al., 2023; Toropova et al., 2021). Self-efficacy, rooted in Bandura's (1991) theory, captures teachers' confidence in their ability to plan, implement, and influence student learning. Teachers with strong self-efficacy are more adaptable, innovative, and responsive to diverse learner needs, contributing to more engaging classroom environments (Emiru & Gedifew, 2024; Li, 2023). Importantly, self-efficacy develops over time through experience and professional support. Together, job satisfaction and self-efficacy form the foundation of teachers' professional attitudes, reinforcing each other and shaping both instructional quality and broader educational outcomes.

Teacher Job Satisfaction, Self-Efficacy and their Connections with Student Outcomes

Research consistently shows a strong relationship between teachers' job satisfaction, their sense of self-efficacy, and the quality of student outcomes. OECD (2014) highlights that satisfied and confident teachers are more effective in supporting students' academic and overall development across different educational contexts. Empirical evidence reinforces this connection. Gu and Zhou's (2020) quantitative study in China found a positive effect ($\beta = 12.55$, $p < 0.05$) of teacher job satisfaction on student achievement, indicating that teachers who feel valued and supported are more likely to create effective learning environments. International reviews by Hoque et al. (2023) further demonstrate that this pattern is consistent across countries such as Finland, Canada, and Australia, proving that teacher satisfaction is a globally influential factor in shaping learning outcomes. Research from Indonesia adds another dimension, with Wula et al. (2020) showing that high job satisfaction reduces teacher burnout, thereby sustaining effective and engaging classroom practices. Similarly, Wartenberg et al. (2023), in their meta-analysis, claim that teacher satisfaction enhances the emotional and cognitive climate of schools, with total effects ranging from 0.10 to 0.29, which, in turn, supports stronger student motivation and academic achievement. Collectively, these studies show that fostering teacher fulfilment is essential for enhancing teaching quality, promoting student success, and sustaining healthy educational systems.

Furthermore, teacher self-efficacy also plays a fundamental role in shaping educational outcomes, with extensive research demonstrating its positive influence on student success (Perera & John, 2020; Hajovsky et al., 2020; Muliati et al., 2022). A structural equation modelling study by Perera and John (2020) in Australia found a significant positive effect of teacher self-efficacy on student achievement ($\beta = 0.14$), indicating that teachers who feel confident in their instructional and classroom management abilities are better able to support student learning. This relationship is echoed in Hajovsky et al.'s (2020) cross-national research, which shows that higher teacher self-efficacy enhances instructional quality and fosters more supportive and motivating classroom environments. Relatedly, Muliati et al. (2022) reported comparable findings in Indonesia, demonstrating that the benefits of teacher self-efficacy extend across diverse cultural and educational contexts. Strengthening teacher self-efficacy improves instructional practices by enabling teachers to implement strategies more effectively. It also fosters richer, more engaging learning environments that support higher student achievement.

Research increasingly highlights the critical role of teacher job-related attitudes, particularly job satisfaction and self-efficacy, in shaping students' learning experiences, motivation, and well-being (Toropova et al., 2021; Wartenberg et al., 2023; Bandura, 1991; Bosica, 2022; Hettinger et al., 2023; Mojavezi & Tamiz, 2012; OECD, 2019; Eren, 2025). Teachers who are satisfied with their roles are more motivated and better able to create supportive, engaging classrooms that enhance student happiness, reduce anxiety, and foster learning engagement (Toropova et al., 2021; Wartenberg et al., 2023). Similarly, teachers with high self-efficacy, belief in their

ability to influence student learning (Bandura, 1991), tend to create positive, engaging, and supportive classrooms. They are more resilient, use varied instructional strategies, and show greater enthusiasm (Bosica, 2022; Hettinger et al., 2023; Mojavezi & Tamiz, 2012). These behaviours foster environments where students feel safe and supported, key elements of well-being (OECD, 2019). High self-efficacy also enables teachers to manage behaviour effectively and respond to individual needs, thereby reducing student anxiety and strengthening a sense of belonging (Eren, 2025). As a result, stronger teacher–student relationships emerge, providing students with the emotional security they need to thrive academically and socially. Together, job satisfaction and self-efficacy shape classroom climate and student engagement, demonstrating that these attitudes are essential not only for teachers' professional well-being and performance but also for fostering positive academic and emotional experiences for students.

Teacher Professional Attitudes and Contextual Factors

Despite earlier studies showing consistent positive links between teacher attitudes and student outcomes, OECD (2014) argues that these effects vary across different contexts. This claim is supported by Capone and Petrillo (2020) and Glaveli et al. (2022), who found clear differences in job satisfaction and efficacy beliefs between permanent and temporary teachers. Permanent teachers, who typically receive more stable salaries and better employment conditions, reported higher job satisfaction and stronger self-efficacy, suggesting that job security and stable employment contribute to greater confidence and professional commitment. Research also identifies gender differences, with female teachers reporting higher job satisfaction (Zakariya & Wardat, 2024) and self-efficacy (Sarfo et al., 2015) than male teachers.

School context also plays a crucial role in shaping teacher attitudes, particularly within Islamic schools, where the distinctive climate creates a unique academic environment. These schools integrate religious values into the curriculum and daily culture through Qur'anic studies, Islamic jurisprudence, and Arabic instruction (Amzat, 2022; Kosim et al., 2023; Yafiz et al., 2022). Such an environment, grounded in spiritual practices and a strong faith-based culture, can deepen teachers' sense of purpose, commitment, and professional identity, influencing both their job satisfaction (Bal & Kökalan, 2021; Yafiz et al., 2022) and self-efficacy (Marisa et al., 2024; Tehranian et al., 2025). However, the impact of a school's religious orientation on students operates indirectly, mediated through teachers' attitudes and the classroom climate (Tanjung, 2021; Yulihardi et al., 2023). In this way, the religious context shapes teachers' values and professional motivations, which subsequently influence their teaching practices and interactions with students, ultimately affecting student well-being and academic engagement.

Conceptual Framework

Figure 1 illustrates the Teacher Attitudes–Student Outcomes Framework, which was developed for this study through an extensive review of the theoretical and empirical literature. Relevant studies were systematically examined and synthesized to explain the links between teacher attitudes and student outcomes. Drawing on the TALIS

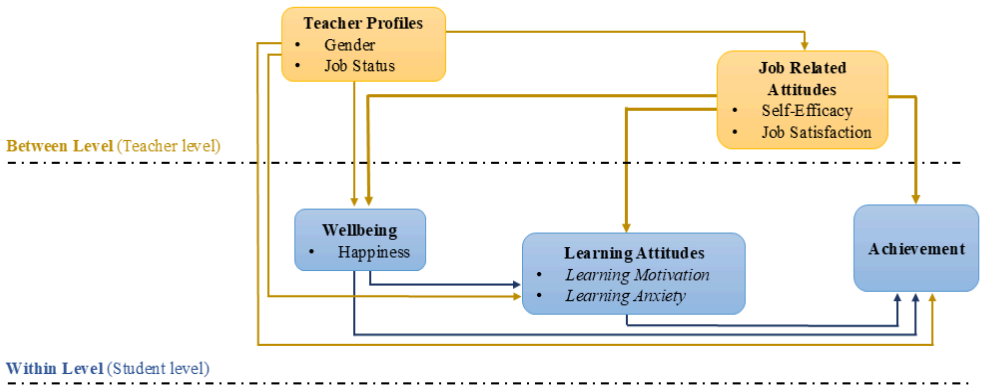
framework (OECD, 2014), and foundational theories of job satisfaction (Locke, 1969) and self-efficacy (Bandura, 1991), this analytical lens assumes that teacher job-related attitudes influence student well-being and learning outcomes through both direct and indirect pathways. Grounded in empirical research on teacher effectiveness, the framework also incorporates contextual perspectives to account for variations across different school settings.

In this study, the framework is applied to examine how these relationships may differ between Islamic and non-Islamic schools. Islamic schools embed religious values deeply into their institutional culture (Amzat, 2022; Kosim et al., 2023; Yafiz et al., 2022), shaping teachers' perceptions of their roles and potentially influencing their job satisfaction and self-efficacy. In contrast, non-Islamic schools operate within a secular system emphasising a standardised curriculum focused on academic achievement (Stern & Smith, 2016), suggesting that teacher attitudes may relate differently to student outcomes in these environments.

The framework specifies several hypothesised pathways. At the teacher level, demographic factors such as gender (Zakariya & Wardat, 2024; Sarfo et al., 2015) and employment status (Capone & Petrillo, 2020; Glaveli et al., 2022) serve as exogenous variables that may shape job satisfaction and self-efficacy, which, in turn, influence student well-being (Toropova et al., 2021; Eren, 2025), motivation, anxiety (Hajovsky et al., 2020; Muliati et al., 2022; Wula et al., 2020), and ultimately academic achievement (Perera & John, 2020; Gu & Zhou, 2020). At the student level, this study considers well-being domains (e.g., happiness), motivation, and anxiety as key predictors of performance. Student achievement is an endogenous variable shaped by both teacher- and student-level characteristics. Together, these assumptions form a coherent analytical structure that guides the study's hypotheses and informs the multilevel, multigroup analyses.

Figure 1

Conceptual Framework



Methodology

Participants

The study population comprised all 84 secondary schools in Bone Regency, South Sulawesi, Indonesia, including 36 general (non-Islamic) and 48 Islamic (Madrasah) schools across 27 districts, with 152 English teachers and 16,021 students. This study used a two-stage stratified sampling design to ensure a representative sample (Mills & Gay, 2016). In Stage One, 12 districts were purposively selected to represent urban, suburban, and rural areas, followed by purposive selection of 30 schools based on accreditation, student population, and willingness to participate. This approach ensured a diverse sample that reflected the regency's educational landscape. In Stage Two, classrooms within each selected school were randomly sampled, yielding 64 classrooms with 64 teachers and 1,319 students, divided into the Islamic school group (30 teachers, 593 students) and the non-Islamic school group (34 teachers, 726 students). A 95% confidence level and a ±5% margin of error were targeted to ensure reliability. This multi-stage approach enhanced both the representativeness of the sample and the generalizability of the study's findings (Ross, 2005).

Data Collection, Measures, Validity and Reliability

This study employed a multi-method approach by combining survey questionnaires and standardised cognitive (achievement) tests to capture complementary perspectives on teacher and student outcomes (Creswell & Clark, 2017). At the teacher level, data were collected through an anonymous, self-administered questionnaire designed to assess teachers' job satisfaction, self-efficacy, and perceptions of their teaching practices. The questionnaire was developed based on prior validated instruments (e.g. OECD, 2014). At the student level, two data sources were used: a self-report questionnaire and a standardised achievement test. The student questionnaire, adapted from validated instruments (e.g., OECD, 2017, 2019; Hamouda, 2013), assessed psychological well-being and learning experiences. The English achievement test, adopted and developed from MoEC (2017), provided an objective measure of students' cognitive performance, enabling triangulation of subjective self-reports with quantifiable learning outcomes. Pilot testing of both instruments ensured robust and reliable measurement of the constructs.

The teacher questionnaire included two sections. The first, Teacher Profiles, collected demographic and job-related information, including gender (0 = Female, 1 = Male) and job status (0 = non-permanent, 1 = permanent/civil servant). The second section, Teacher Job-Related Attitudes, adapted from the TALIS survey (OECD, 2014), measured Job Satisfaction (α = .74) and Teaching Efficacy (α = .88). Job satisfaction was assessed using five items that evaluated teachers' overall satisfaction with their roles, benefits, and enjoyment of work. An example item is *"All in all, I am satisfied with my job."* Teaching self-efficacy was measured using seven items designed to capture teachers' confidence in lesson delivery, engaging students, and implementing effective teaching methods. For instance, one item states *"I am very confident in my capability to teach."*

The student questionnaire comprised three components. First, Student Wellbeing, such as Happiness (α = .78), was assessed using six items adapted from the OECD (2017). Second, Learning Attitudes included Motivation (α = .85; OECD, 2019) and Anxiety (α = .78; Hamouda, 2013). Student well-being was measured to capture students' positive emotional experiences and overall satisfaction within the school environment, including feelings of contentment, enjoyment, and comfort in learning settings. An example item is "I feel happy." Motivation was assessed using six items evaluating students' drive and willingness to engage in learning, such as "I am motivated to use my [English] knowledge and skills for my future jobs." Learning-related anxiety was measured with seven items designed to capture students' stress, worry, or nervousness in academic contexts, for example "I get nervous and confused when I don't understand the lesson." Third, Student Achievement, adapted from the MoEC (2017), was measured using a 20-item multiple-choice English test, with scores ranging from 0 to 100, with higher scores indicating greater proficiency.

All teacher and student attitudinal variables, teacher job satisfaction, self-efficacy, student happiness, learning motivation and anxiety, were measured on a four-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree) and transformed into Weighted Likelihood Estimates (WLE) via Rasch analysis to reduce scaling bias (Warm, 1989). Validity and reliability were confirmed using confirmatory factor analysis (CFA) and Rasch modelling. Factor loadings exceeded .40, and average variance extracted (AVE) surpassed .58 (Hair et al., 2014). Goodness-of-fit indices met standard criteria: $X^2/df \leq 3$ (Kline, 2015), CFI/TLI > .95 (Wang & Wang, 2019), RMSEA ≤ .08 (Bialosiewicz et al., 2013), and WRMR ≤ .10 (DiStefano et al., 2018). The achievement test demonstrated appropriate item fit (MNSQ = .97–1.0) and item discrimination > .20 (Bond & Fox, 2013). Composite/construct reliability (CR) exceeded .88, and item separation reliability (ISR) exceeded .90 for all scales. Detailed descriptions of the items, scales, and validity and reliability results are presented in Appendix 1.

However, this study has several limitations. First, its cross-sectional design precludes the establishment of causal relationships. To address this, we employed multilevel path analysis, which allows for modeling complex relationships within and between data levels (Ryu, 2015); nevertheless, longitudinal studies are needed to confirm causal directions over time. Second, the data were collected from a single regency in Indonesia, which may limit generalizability. We mitigated this by including both Islamic (IS) and non-Islamic (NS) schools using a multi-stratified sampling design to capture contextual variation (Mills & Gay, 2016). Finally, the study relied on self-report measures for teacher attitudes and student well-being, which may be influenced by social desirability bias. To minimise this effect, we assured participants of anonymity, used validated instruments with established reliability, and supplemented student outcomes with objective achievement test scores to provide a more robust measure of academic performance (Creswell & Clark, 2017).

Multigroup and Multilevel Path Analysis

Multigroup and multilevel path analysis was conducted using Mplus 8.10 (Muthén & Muthén, 1998-2017) to examine the complex relationships among variables across comparative educational groups. This approach integrates principles of multiple regression, enabling the assessment of both direct and indirect effects across hierarchical levels and groups (Ryu, 2015). Teacher data were disaggregated to the student level using a teacher identifier (TCID), allowing the effects of teacher-related factors on student outcomes to be explored. The dataset was organised by school system (0 = Non-Islamic/NS; 1 = Islamic/IS) and stratified into 24 clusters in line with a two-stage sampling design. Teacher variables, including gender, job status, job satisfaction and self-efficacy, were treated as between-level (Level 2) predictors, while student-level variables, such as happiness, motivation, anxiety, and academic achievement, were considered within-level (Level 1) predictors. Maximum likelihood (ML) estimation was employed to estimate parameters, assuming normality and maximising the likelihood of the observed data given the model (Oort & Jak, 2016). This method effectively handles hierarchical, multigroup data.

The analysis proceeded in two stages of model identification and model evaluation. Model identification focused on confirming the hypothesised relationships within the conceptual framework. Model evaluation assessed fit using standardised coefficients (β) for direct, indirect, and total effects, with significance set at $p < .05$. Goodness-of-fit indices included the chi-square to degrees of freedom ratio ($\chi^2/d.f.$), comparative fit index (CFI), Tucker–Lewis index (TLI), root mean square error of approximation (RMSEA), and standardised root mean square residual (SRMR), with thresholds guided by Hair et al. (2014). Models that did not meet fit criteria were adjusted or, if necessary, revised based on theoretical considerations. The findings emphasised significant relationships among predictors, providing robust insights into teacher-student interactions across different educational systems.

Findings

Descriptive Statistics

Table 1 presents the descriptive statistics summarising the variables used (Pallant, 2020), including teacher-level (between-level) and student-level (within-level) measures across Islamic and non-Islamic schools. At the teacher level, job satisfaction was higher in non-Islamic schools (M = 1.42, SD = 1.61) than in Islamic schools (M = 1.11, SD = 1.78). Similarly, teacher self-efficacy was higher in non-Islamic schools (M = 1.85, SD = 2.37) than in Islamic schools (M = 1.17, SD = 2.97). At the student level, happiness was slightly higher in non-Islamic schools (M = 2.00, SD = 1.44) than in Islamic schools (M = 1.89, SD = 1.47), whereas learning anxiety was greater among Islamic students (M = 1.82, SD = 1.44) than non-Islamic students (M = 1.59, SD = 1.52). Learning motivation was comparable across groups, with non-Islamic students reporting M = 2.67 (SD = 1.49) and Islamic students reporting M = 2.64 (SD = 1.39). For academic achievement, Islamic students achieved a higher mean score (M = 42.39, SD = 13.39) than non-Islamic students (M = 38.79, SD = 16.69). Skewness

values ranged from -0.90 to 1.25 and kurtosis values from -0.42 to 0.32, all within acceptable limits (±2 for skewness and ±7 for kurtosis), indicating that the data distributions were normally distributed and suitable for further analysis (Hair et al., 2014).

Table 1

Descriptive Statistics Across Groups

Variable		***Non-Islamic (NS, n=726)***			***Islamic (IS, n=593)***		
		Mean (SD	*Skewness (S.E.)*	*Kurtosis (SE)*	*Mean (SD*	*Skewness (S.E.)*	*Kurtosis (SE)*
Between Level (Teacher Level)							
Teacher Job Satisfaction	*TCJOBS*	*1.42 (1.61)*	*0.43 (0.01)*	*-0.90 (0.18)*	*1.11 (1.78)*	*0.43 (0.10)*	*-0.79 (0.20)*
Teacher Efficacy	*TCEFF*	*1.85 (2.37)*	*0.37 (0.01)*	*-0.87 (0.18)*	*1.17 (2.97)*	*-0.24 (0.10)*	*-0.42 (0.20)*
Within Level (Student Level)							
Wellbeing: happiness	*HAPPY*	*2.00 (1.44)*	*-0.25 (0.09)*	*-0.54 (0.18)*	*1.89 (1.47)*	*-0.17 (0.10)*	*-0.42 (0.20)*
Learning Anxiety	*ANXIE*	*1.59 (1.52)*	*0.25 (0.09)*	*1.25 (0.18)*	*1.82 (1.44)*	*-0.21 (0.10)*	*1.20 (0.20)*
Learning Motivation	*MOTIVE*	*2.67 (1.49)*	*-0.06 (0.09)*	*-0.09 (0.18)*	*2.64 (1.39)*	*-0.11 (0.10)*	*-0.25 (0.20)*
Student Achievement	*ACV*	*38.79 (16.69)*	*0.56 (0.09)*	*-0.32 (0.18)*	*42.39 (13.98)*	*0.32 (0.10)*	*0.23 (0.20)*

Average score between level, n =64 (TCJOBS, M=1.22, SD=1.66; TCEFF, M=1.45, SD=2.74); within level, n= 1319 (HAPPY, M=1.95, SD=1.45; ANXIE, M=1.69, SD=1.49; MOTIVE, M=2.66, SD=1.45, SCV=40.41, SD=15.63).

Multigroup and Multilevel Path Analysis

Table 2

Results of Multigroup and Multilevel Path Analysis Across Groups

Variable		NS Group				IS Group			
		Standardise		Unstandardised		Standardise		Unstandardised	
Dependent	Independent	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
Within Level									
Student Achievement (ACV)	Learning Motivation (MOTIVE)	0.17	0.03	1.88	0.31	0.12	0.03	1.22	0.31
	Learning Anxiety (ANXIE)	-0.37	0.02	-4.08	0.31	-0.63	0.03	-6.11	0.46
	Happiness (HAPPY)	0.43	0.02	4.93	0.27	0.25	0.03	2.35	0.27
Learning Anxiety (ANXIE)	Happiness (HAPPY)	-0.6	0.02	-0.64	0.04	-0.09	0.05	-0.09	0.05
Learning Motivation (MOTIVE)	Happiness (HAPPY)	0.36	0.04	0.37	0.04	NS	NS	NS	NS
Between Level									
Student Achievement (ACV)	Job Satisfaction (TCJOBS)	0.56	0.17	3.38	1.05	NS	NS	NS	NS
	Job Status (TCJBSTAT)	0.34	0.14	6.72	3.16	NS	NS	NS	NS
	Teacher Efficacy (TCEFF)	NS	NS	NS	NS	0.32	0.15	0.8	0.29
Learning Motivation (MOTIVE)	Job Satisfaction (TCJOBS)	NS	NS	NS	NS	0.38	0.12	0.13	0.04
	Teacher Gender (TCGENDER)	NS	NS	NS	NS	-0.36	0.09	-0.44	0.11
Teacher Job Satisfaction (TCJOBS)	Teacher Efficacy (TCEFF)	0.48	0.17	0.32	0.11	NS	NS	NS	NS
	Teacher Gender (TCGENDER)	-0.25	0.13	-0.79	0.46	NS	NS	NS	NS
	Job Status (TCJBSTAT)	0.02	0.01	0.05	0.01	0.01	0.01	0.05	0.01
Teacher Efficacy (TCEFF)	Teacher Gender (TCGENDER)	-0.47	0.13	-2.26	0.63	-0.44	0.14	-2.78	1.06

GOF: X2/df =54.87/24, CFI= 0.98, TLI = 0.96, RMSEA = 0.04, SRMR = 0.02, NS= Not Significant

As shown in Table 2, the final multigroup and multilevel model meets accepted goodness-of-fit criteria, with χ^2/d.f. = 54.9/24, CFI = .98, TLI = .96, RMSEA = .04, and SRMR = .02, which, according to Hair et al. (2014), indicate that the model adequately represents the data. Figure 2 further illustrates the relationships between teacher job-related attitudes and student outcomes in Islamic (IS) and non-Islamic (NS) schools. In the figure, arrows indicate the direction of predicted relationships, with red estimates representing NS schools and blue estimates representing IS schools. Notably, while this predictive pattern holds in both school types, the strength of these relationships is somewhat stronger in NS schools, as discussed in the following section.

Effects of Teacher Job Satisfaction on Student Achievement Across Groups

Teacher job satisfaction demonstrated distinct effects on student achievement across the two school contexts. As shown in Figure 2, in non-Islamic (NS) schools, job satisfaction directly predicted student achievement (β = 0.56, *S.E.* = 0.17; unstandardised = 3.38, *S.E.* = 1.05), indicating that higher teacher satisfaction strongly enhances students' academic performance. Job status also positively influenced achievement in NS schools (β = 0.34, *S.E.* = 0.14; unstandardised = 6.72, *S.E.* = 3.16), highlighting the advantages of permanent employment. In contrast, in Islamic schools (IS), job satisfaction did not directly impact academic achievement. Instead, its effect was mediated through student motivation: higher teacher satisfaction increased motivation (β = 0.38, *S.E.* = 0.12; unstandardised β = 0.13, *S.E.* = 0.04), which, in turn, positively influenced achievement.

Effects of Teacher Self-Efficacy on Student Achievement Across Groups

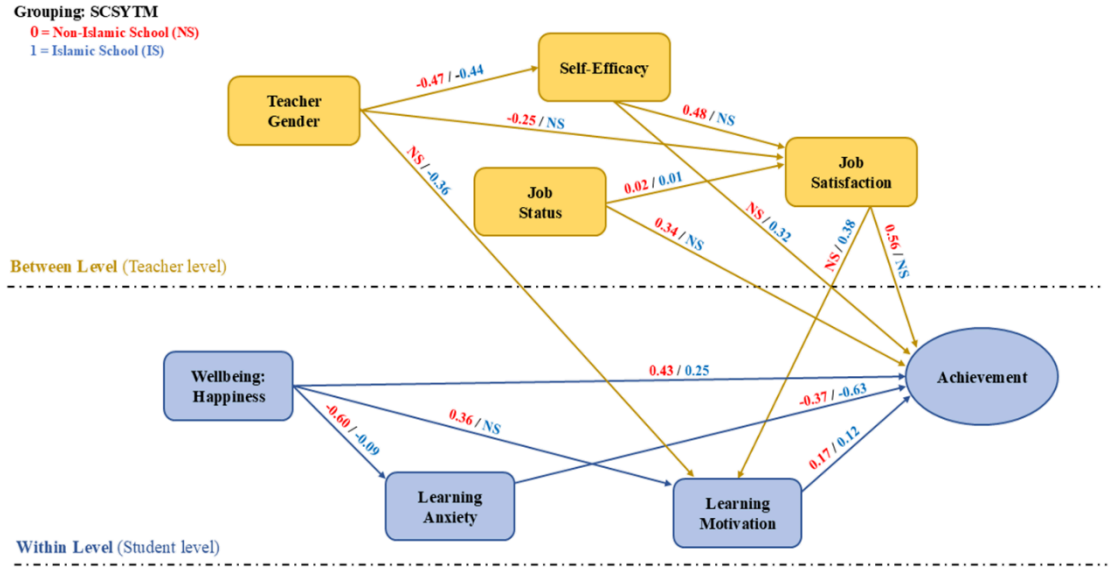
Teacher self-efficacy showed differential impacts across the two school types. Figure 2 shows that in NS schools, self-efficacy did not significantly predict student achievement, but it did positively influence job satisfaction (β = 0.48), suggesting an indirect pathway to student outcomes. In IS schools, self-efficacy directly contributed to student achievement through its positive effect on job satisfaction (β = 0.32) and indirectly via enhanced student motivation. Gender also affected self-efficacy in IS schools, with female teachers exhibiting higher efficacy (β = -0.44).

Effects of Teacher Job Satisfaction and Self-Efficacy on Student Well-Being across Groups

Teacher job satisfaction and efficacy did not directly predict well-being or anxiety in either NS or IS schools (see Figure 2). However, student happiness positively influenced achievement (NS: β = 0.43; IS: β = 0.25), while learning anxiety negatively affected achievement (NS: β = -0.37; IS: β = -0.63), highlighting the critical role of students' psychological states. Teacher job satisfaction indirectly enhanced student well-being in IS schools by fostering motivation, thereby supporting academic performance and reducing anxiety.

Figure 2

Multigroup and Multilevel Path



Discussion

This research provides a novel insight into how teacher job satisfaction and self-efficacy affect student outcomes by comparing Islamic and non-Islamic schools in Indonesia, a context that has not been explored in previous research. Using multigroup and multilevel path analysis, the study demonstrates that the links between teacher attitudes and student achievement are context-dependent rather than universal. These findings are particularly valuable for educational systems where different types of schools coexist, as they highlight the importance of considering school context when examining teacher effectiveness. By revealing context-specific pathways, these findings challenge the assumption (OECD, 2014) of a uniform relationship and provide clear evidence for it, offering practical implications for policymakers and educators in diverse educational settings.

This study revealed that the influence of teacher job satisfaction and self-efficacy on student achievement operates through context-dependent pathways. Notably, a key novel finding of this research is the identification of distinct pathways through which teacher job satisfaction and self-efficacy influence student achievement in Islamic versus non-Islamic schools. In the non-Islamic school context, the study observed a strong, positive relationship between teacher job satisfaction and student academic achievement. This finding supports the hypothesis, and is consistent with international research indicating that higher teacher job satisfaction enhances teaching effectiveness, which subsequently improves student performance (Hoque et al., 2023; Wartenberg et al., 2023). Importantly, confirming this pathway within the non-Islamic Indonesian educational framework strengthens the generalizability of the pattern, providing evidence that the link between teacher satisfaction and student outcomes holds across different cultural and institutional contexts. By establishing this baseline, the study increases confidence in the validity of these relationships and

highlights the relevance of context-specific pathways for understanding teacher effectiveness in diverse educational settings.

In contrast to the hypothesis (Perera & John, 2020), this direct link was not observed in Islamic schools. Instead, the study revealed an indirect pathway in which teacher job satisfaction contributes to student achievement by first enhancing student motivation. In the faith-based environment of Islamic schools, a teacher's professional fulfilment may not directly translate into improved academic outcomes. Instead, it fosters an atmosphere of inspiration and purpose that motivates students to engage more deeply with their learning (Bal & Kökalan, 2021; Yafiz, Yousif Oudah Al-Muttar, et al., 2022). This finding is particularly significant as it points to the unique role of intrinsic motivation within religious educational settings, a mechanism that has been underexplored in comparative research. The spiritual and moral ethos of Islamic schools may foster an environment where satisfied teachers can connect with students on a values-based level. This connection helps foster students' intrinsic motivation and drive to succeed (Tanjung, 2021; Yulihardi et al., 2023).

Equally novel are the distinct effects of teacher self-efficacy across school types. In Islamic schools, self-efficacy directly boosts student achievement, indicating that confident teachers can translate their capability into effective instructional practices that benefit students. This finding supports the hypothesis and is consistent with studies demonstrating a strong link between teacher self-efficacy and student success in similar contexts (Sabrina et al., 2023). Conversely, in non-Islamic schools, the effect of teacher self-efficacy on student achievement was entirely mediated by job satisfaction. In the general school system, a teacher's confidence mainly supports student success by increasing their own job satisfaction. This finding heightened satisfaction, which, in turn, led to more effective teaching and better student outcomes (OECD, 2014). This mediated relationship in non-Islamic schools, in contrast to the direct effect in Islamic schools, is a key original contribution of this study. This gap highlights that the institutional and cultural environment fundamentally shapes the psychological mechanisms of teacher effectiveness.

One of the most surprising findings of this study is the absence of a significant direct or indirect relationship between teacher job satisfaction or self-efficacy and student happiness or learning anxiety in both school systems. This result challenges the prevailing literature, which often assumes that positive teacher attitudes directly and indirectly enhance student psychological outcomes (Bosica, 2022; Eren et al., 2025; Hettinger et al., 2023; Toropova et al., 2021). Traditionally, it is believed that satisfied and confident teachers foster supportive and low-stress classroom environments, thereby promoting student well-being. This study's null finding suggests that the relationship between teacher attitudes and student psychological outcomes is more complex than previously assumed. Other unmeasured factors, such as peer relationships, school-wide support policies, parental involvement, or broader socio-economic pressures, may play a stronger role in shaping student well-being (OECD, 2014, 2017, 2019). While teachers remain central to academic learning, these

findings indicate that a broader ecosystem of influences likely governs students' psychological and emotional experiences at school.

Furthermore, the analysis also reinforces the critical role of structural factors within the Indonesian education system. Consistent with previous research (Capone & Petrillo, 2020; Glaveli et al., 2022), job status emerged as a significant predictor of teacher job satisfaction in both Islamic and non-Islamic schools. The fact that permanent teachers report higher satisfaction highlights the profound impact of job security and stability on teacher morale. This finding is particularly salient for the Islamic school sector, where a staggering 81% of teachers are non-permanent staff (ADB, 2014). This structural inequity likely contributes to the lower average job satisfaction observed in Islamic schools and underscores a major policy challenge for the Ministry of Religious Affairs.

Additionally, the study identified consistent gender differences, with female teachers reporting significantly higher self-efficacy in both school contexts. This finding aligns with some existing research (Sarfo et al., 2015) but is novel in its confirmation across both secular and religious educational systems in Indonesia, suggesting that this gender effect is robust to cultural and institutional variations. The higher job satisfaction among female teachers in non-Islamic schools further adds to the complexity of how gender intersects with professional attitudes. These findings call for gender-sensitive professional development programs and support systems to ensure all teachers, regardless of gender, are empowered to thrive.

Conclusion

This study advances the field of comparative and international education and educational psychology by providing a rare comparative analysis of teacher job satisfaction and self-efficacy within Indonesia's dual education system, a context that has been largely unexplored. By employing a robust multigroup, multilevel methodology, this study uncovered novel, context-specific mechanisms through which teacher attitudes shape student achievement. The central contribution of this research lies in its departure from a one-size-fits-all model of teacher effectiveness. The findings demonstrate conclusively that the pathways from teacher satisfaction and efficacy to student success are not universal. They are fundamentally shaped by the distinct cultural and institutional climates of Islamic and non-Islamic schools.

This empirical research revealed distinct pathways linking teacher attitudes to student achievement. In non-Islamic schools, job satisfaction directly predicted achievement, whereas in Islamic schools, motivation mediated this relationship. Similarly, teacher self-efficacy directly influenced achievement in Islamic schools, while in non-Islamic schools, its effect was mediated by satisfaction, challenging existing theoretical frameworks and emphasising the need for context-sensitive research. Furthermore, the unexpected finding that teacher attitudes do not directly influence student well-being opens critical new questions for the field. This result suggests that the drivers of students' psychological health are more complex and distributed than previously understood.

The theoretical implications of this study are significant. It extends social-cognitive and self-determination theories by illustrating how the school's socio-cultural context can alter the psychological mechanisms underlying teacher effectiveness. The findings call for refining models, such as the TALIS framework, to incorporate greater sensitivity to institutional and cultural variables. Future research should move beyond asking if teacher attitudes matter and instead focuses on how, where, and why they matter, exploring the specific mediating and moderating factors at play in diverse educational settings.

From a policy perspective, this research offers clear and actionable insights for both the Ministry of Education and Culture (MoEC) and the Ministry of Religious Affairs (MoRA) in Indonesia. The strong link between job status and teacher satisfaction across both systems underscores the pressing need to address the structural precarity faced by non-permanent teachers. Improving job security, offering competitive salaries, and expanding access to professional development are critical levers for enhancing teacher satisfaction and, consequently, student achievement. Moreover, the findings advocate for tailored, context-aware professional development. In non-Islamic schools, programs should focus on bolstering job satisfaction as a key mediator of efficacy. In Islamic schools, professional development should aim to enhance teachers' ability to inspire student motivation and directly build their self-efficacy. The consistent gender gap in self-efficacy also calls for targeted, gender-sensitive support to ensure all teachers are empowered to succeed.

Therefore, future research should adopt longitudinal designs to examine how the relationships between teacher attitudes and student outcomes evolve over time. Replicating these findings in more diverse contexts would further enhance their generalizability across different regions and school types. Moreover, future studies should investigate factors that may explain the absence of a direct link between teacher attitudes and student well-being. This unexpected result contributes to the literature by challenging established theoretical assumptions and underscores the need to examine the multiple determinants of student emotional health. In particular, exploring the roles of peer culture, school climate, and parental involvement could provide a more comprehensive understanding of the ecosystem that supports students' psychological well-being and academic success.

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Appendix 1

Results of Confirmatory Factor Analysis (Questionnaire)

Item	Description	Factor Loading	AVE	CR	GOF
	Job Satisfaction (TCJOBS)				
TCJOBS1	The advantages of being a teacher are clear.	0.67	0.68	0.88	$X^2/df = 4.7/4$
TCJOBS2	I do not regret that I decided to become a teacher.	0.73			CFI = 0.99
TCJOBS3	I enjoy working at this school.	0.91			TLI = 0.99
TCJOBS4	I would recommend my school as a good place to work.	0.67			RMSEA = 0.05
TCJOBS5	All in all, I am satisfied with my job.	0.43			WRMR = 0.31
	Teacher Efficacy (TCEFF)				
TCEFF1	I am very confident in my capability to teach.	0.78	0.85	0.97	$X^2/df = 17.9/14$
TCEFF2	I provide individual support for advanced students.	0.75			CFI = 0.99
TCEFF3	I tell students how they are performing in my course.	0.89			TLI = 0.99
TCEFF4	I give students feedback on their strengths in my course.	0.90			RMSEA = 0.06
TCEFF5	I tell students in which areas they can still improve.	0.69			WRMR = 0.56
TCEFF6	I tell students how they can improve their performance.	0.97			
TCEFF7	I advise students on how to reach their learning goals.	0.97			
	Student Wellbeing: Happiness (HAPPY)				
HAPPY1	I feel happy.	0.34	0.58	0.91	$X^2/df = 7.4/4$
HAPPY2	I have a lot of fun.	0.33			CFI = 0.99
HAPPY3	I love life.	0.80			TLI = 0.99
HAPPY4	I am a cheerful person.	0.81			RMSEA = 0.03
HAPPY5	I feel I am satisfied with my life.	0.59			WRMR = 0.40
HAPPY6	I find most things amusing.	0.59			
	Student Learning Anxiety (ANXIE)				
ANXIE1	I am nervous when I learn English lessons and I am not familiar with the topic.	0.68	0.74	0.94	$X^2/df = 37.9/11$
ANXIE2	During English lesson, I get nervous and confused when I don't understand the lesson.	0.73			CFI = 0.99
ANXIE3	I get annoyed when I come across words that I don't understand while learning English.	0.76			TLI = 0.99
ANXIE4	I get nervous if a listening passage is read only once during listening tests.	0.68			RMSEA = 0.04
ANXIE5	I feel uncomfortable in class when learning English.	0.81			WRMR = 0.62
ANXIE6	It is hard to concentrate on what the words mean in English passages unless I know them	0.77			
ANXIE7	well.	0.74			
	In English tests, I get worried when I do have not enough time to think.				

Item	Description	Factor Loading	AVE	CR	GOF
	Student Learning Motivation (MOTIVE)				
		0.71	*0.77*	*0.94*	$X^2/df = 19.6/6$
MOTIVE1	*English lessons are important.*	*0.82*			*CFI = 0.99*
MOTIVE2	*The English skill practice in this class helped to improve language skills.*	*0.84*			*TLI = 0.99*
MOTIVE3	*With English skills, I will be able to speak with foreign.*	*0.66*			*RMSEA = 0.04*
MOTIVE4	*English skills help me think critically.*	*0.80*			*WRMR = 0.50*
MOTIVE5	*I will be able to use my English skills when travelling.*	*0.77*			
MOTIVE6	*I will be able to use my English skills for my future jobs.*				