Faculty trust and self-efficacy among teachers: The mediating role of professional learning in Malaysian national school

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Abstract: This study aimed to explore the impact of faculty trust on teachers' self-efficacy, mediated by teachers' professional learning, in Malaysian national secondary schools. Data were collected from 450 secondary school teachers in Malaysia. Partial least squares – structural equation modeling (PLS-SEM) was used for data analysis. Findings highlight positive impacts of both faculty trust and teachers' professional learning on teachers' self-efficacy. Furthermore, teachers' professional learning acts as a mediator on the relationship between faculty trust and teachers' self-efficacy. These findings clarify the complex factors shaping teachers' self-efficacy and competence in the ever-evolving educational landscape of Malaysian national secondary schools.

Keywords: Faculty Trust, Professional Learning, Self-Efficacy, Secondary School, Malaysia.

Article History: Received: 25 Dec 2023, Accepted: 23 Jan 2024, Published: 07 Feb 2024

INTRODUCTION

Around the world, a slew of educational reform measures has been undertaken to better prepare students for the 21st century, primarily to address the new challenges posed by the Fourth Industrial Revolution (IR4.0). The fast growing technologically oriented society has a significant impact on the classroom learning environment. There are numerous educational programs and reforms that have been undertaken to prepare teachers and students for the 21st century, notably to satisfy the changing educational challenges of the modern information technology age.

The complexity of learning in the 21st century presents teachers with a series of challenges and requires their proactive engagement in both the teaching and learning processes. These challenges include incorporating technology as a teaching tool, developing higher-order thinking abilities, and being ready to support innovation (Dzul et al., 2023; MOE, 2019). These are the obstacles that teachers encounter in their teaching pursuit. As reported by Othman et al. (2021), teachers frequently confront new challenges and uncertainties in times of educational change. Although most teachers participated in training courses organized by the government, the impact of such training has proven to be inadequate in igniting enthusiasm among teachers to effectively utilize the technological facilities in their teaching practices (Ebrahimi & Jiar, 2018). For instance, a report published by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) revealed that the integration of ICT by teachers in schools has remained relatively limited, often confined to the use of word-processing functions as a teaching aid (Educational Technology Division of Malaysia [ETD], 2017; MOE, 2018). This could stem from inadequate professional learning and exposure to technology, which affects teachers' ability to deliver course content effectively (Goh et al., 2020; Suroso et al., 2021).

Furthermore, when there is a lack of collaborative and supportive interaction among faculty members, teachers might experience a sense of isolation and insecurity in managing educational change. To address the challenges, some scholars argue that faculty trust is a crucial factor in implementing educational reforms and improving teaching and learning effectiveness, as the attitude of school teachers have a significant impact on their teaching capabilities (Dzul et al., 2023; Rerah & Mohamed, 2021; Thien et al., 2023). As stated by Cai and Tang (2021), trust serves as a catalyst for encouraging teachers

ISSN: 2327-0128 (Print), ISSN: 2327-2627 (Online)

to actively participate in collaborative decision-making processes, effectively addressing the challenges posed by globalization. It acts as a supportive and motivating factor for teachers when it comes to implementing new innovations and teaching practices. When teachers have trust in the capabilities of their school leaders who support their teaching approach and activities, they are more inclined to experience increased teaching efficacy. Furthermore, trust among teachers fosters a sense of unity, collaboration, and the development of positive social relationships within the school workplace. Nevertheless, research gaps are discovered as there is little research has been carried out to validate the relationship between faculty trust and teachers' self-efficacy in school context (Çoban et al., 2020; Zheng et al., 2020).

According to Cai and Tang (2021), the presence of trust within the educational environment cultivates a supportive and psychologically secure atmosphere. In such an environment, teachers are more likely to embrace a growth mindset, believing in their capability to develop and the possibility for favorable outcomes. When teachers trust that their professional learning is recognized and supported, they are motivated to actively engage in continuous learning and look for opportunities for further improvement (Karacabey et al., 2022; Talebizadeh et al., 2021). Dzul et al. (2023) highlighted that teachers are empowered to broaden their pedagogical knowledge and skills through well-structured professional learning opportunities such as peer observation, reflection practices, workshops, and similar approaches. These practical techniques are then effectively integrated into their classroom, resulting in a significant increase in teachers' self-efficacy. Aside from that, Thien et al. (2023) highlighted that there is a scarcity of research looking into the antecedents and effects of teachers' professional learning. By thoroughly understanding how leadership practices, school support, and personal motivations interact with teachers' professional learning. Ultimately, bridging this research gap holds significant potential to improve the overall quality of teaching and learning in educational contexts. It empowers teachers with the tools and insights they need to optimize their professional learning, which in turn translates into enhanced classroom practices.

It is important to highlight the significance of investigating faculty trust (as a precursor) and teachers' self-efficacy (as an outcome) concerning teacher professional learning within the Malaysian school context. This research is valuable as it has the potential to optimize the process of professional learning, nurture collaborative learning environments, address challenges posed by educational reform, and make meaningful contributions to educational research. Ultimately, this research may pave the way for the development of more effective strategies aimed at improving the quality of professional learning among teachers, and thereby positively impacting teachers' self-efficacy belief. Therefore, the main aim of this study is to examine the mediating effect of professional learning on the relationship between faculty trust and teachers' self-efficacy.

LITERATURE REVIEW

Social Cognitive Theory

The theoretical foundation of this study is rooted in Social Cognitive Theory (SCT) as proposed by Bandura (1986). According to Bandura (1986), teachers' self-efficacy, a core concept within SCT, refers to an individual's belief in their capability to perform specific actions effectively to achieve desired outcomes. SCT primarily focuses on how individuals manage and regulate their behaviors through control and reinforcement mechanisms to accomplish their targets (LaMorte, 2019).

In line with this theory, faculty trust is posited to have a substantial impact on the social interactions and observational learning experiences that contribute to the development of teachers' self-efficacy. These interactions provide opportunities for observational learning, allowing teachers to observe the successful implementation of teaching strategies by their trusted colleagues. This, in turn, can improve teachers' self-efficacy in relation to their teaching abilities (Bandura, 1986). According to Bandura's (1986) SCT, faculty trust plays a fundamental role in establishing a psychologically secure environment in which teachers are more likely to participate in professional learning activities. According to the underlying theory, individuals are influenced by their observations of others within their social surroundings. When teachers have trust in their colleagues and school leaders, they become more receptive to observing and learning from the accomplishments and expertise of their colleagues. This, in turn, can have a substantial positive impact on their professional learning. Furthermore, teachers' professional learning experiences function as examples of social modeling and social persuasion, playing an important role in shaping teachers' self-efficacy (Bandura, 1986). Interactions with colleagues and administrators have the potential to either strengthen or weaken their self-efficacy beliefs. When teachers receive supportive and constructive feedback, along with the opportunity to observe skilled teachers effectively implementing new teaching approaches, the confidence in their own abilities is likely to increase. Conversely, the absence of positive role models or discouraging feedback may potentially impede the development of self-efficacy.

Building upon this theoretical framework, the research aims to examine the impact of faculty trust, teachers' professional learning, and teachers' self-efficacy in the context of Malaysian national secondary schools. The subsequent sections provide a discussion of the existing literature relevant to these variables.

Teachers' Self-Efficacy

When discussing the issues of educational workforce, it is crucial to consider teachers' self-efficacy (Muliati et al., 2022). In an educational context, self-efficacy is an important concept in teacher performance because it has a significant impact on teachers' attitude towards the educational processes (Dogru, 2020; Polatcan et al., 2021). There is evidence that self-efficacy facilitates teachers achieve school objectives, teach effectively, and improve students' enthusiasm and success (Polatcan et al., 2021; Zheng et al., 2019). Tschannen-Moran and Hoy (2001) developed the Teachers' Sense of Efficacy Scale (TSES) which has three sub-scales: efficacy in instructional strategies, efficacy in classroom management, and efficacy in student engagement. The efficacy in instructional strategies evaluates the degree of teachers' belief in their ability to establish a positive learning environment and facilitate effective learning processes in the classroom such as teaching methodologies and controlling teaching and learning processes. The efficacy in classroom management assesses teachers' belief in their abilities to manage the classroom environment including maintaining discipline and regulating students' conduct and disruptive components. The efficacy in student engagement describes the degree of teachers' belief in their ability to inculcate positive attitudes in students such as encouraging them to participate in school events or enhance their passion to learn.

Faculty Trust and Teachers' Self-Efficacy

The definition of trust is "a person's enthusiasm to be exposed to another in the sense that the other is benevolent, honest, open, reliable, and competent" (Choong et al., 2020; Choong et al., 2018). In this study, the concept of faculty trust is defined as an atmosphere characterized by trust that empowers teachers through support, fostering continuous improvement in teaching practices and nurturing collaborative efforts among teachers. The investigation of faculty trust in this research was originally developed by Hoy and Tschannen-Moran (2007) and evaluates three attributes of faculty trust: trust in principal, trust in colleagues, and trust in clients. In this study, faculty trust is explored as a cohesive construct with trust in principal and trust in colleagues. It is noteworthy that the attributes related to trust in clients are not considered within the scope of this research. This choice stems from the understanding that a school functions as a collective entity wherein interconnected individuals collaborate to shape its outcomes. Trust in the school leader implies teachers' belief that the school leaders will honor his or her own promises and act in the interest of their colleagues. Trust in the colleagues reflects the teachers' belief that they can trust one another in challenging circumstances and that their colleagues are trustworthy.

Choong et al. (2020) observed a direct relationship between trust and self-efficacy among teachers. The research suggests that when teachers have trust in their colleagues and principals, it contributes to the optimization of teaching outcomes across all dimensions. This implies that a trusting environment facilitates effective collaboration and cooperation among educational stakeholders, resulting in improved teaching practices and student outcomes. Çoban et al. (2020) also emphasized that trust in school leadership creates an environment in which teachers are open-minded and receptive. This openness can lead to improved communication, ideas sharing, and a greater willingness to work collectively towards common goals. Studies by Choong et al. (2020) and Tschannen-Moran and Gareis (2015) reinforce the consistent finding that higher levels of trust within the educational continuum correspond to greater teachers' self-efficacy. The implications of this relationship are profound. As trust levels improve, teachers can become agents of change, inspiring motivation, collaboration, and a commitment to continuous improvement. Therefore, this research proposed the following hypothesis.

H_1: Faculty trust has a significant impact on teachers' self-efficacy.

Faculty Trust and Teachers' Professional Learning

In the scope of this research, teachers' professional learning pertains to the continuous process of acquiring, enhancing, and refining knowledge, skills, and attitudes that contribute to the effectiveness of teaching practices. The mediating effect explored in this study, teachers' professional learning, was originally developed by Liu et al. (2016b). The measurement scale consists of collaboration, reflection, experimentation, and reach out to the knowledge base. This study will be stressed on the single construct of teachers' professional learning. Collaboration encourages active engagement within an interactive learning environment, which facilitates the exchange of information among individuals. Reflection entails incorporating external feedback and experiences to foster self-awareness and development. Experimentation represents the purposeful endeavors by teachers to attempt various challenges in the classroom. Lastly, reach out to the knowledge base delineates the approach of acquiring new skills and

staying updated with the most current information and insights.

There are researchers recommended to investigate the impacts between faculty trust, professional learning community, and teachers' professional learning (Hargreaves, 2007; Stoll & Louis, 2007; Tschannen-Moran, 2009). In alignment with this perspective, Liu et al. (2016a) supports that trust among colleagues significantly influences teachers' professional learning. However, the authors found that trust in the school principal and trust in parents did not exhibit a direct relationship with teachers' professional learning. Yin et al. (2019) conducted research that indicated the perceived insignificant impact of trust on the principal, attributing this phenomenon to the indirect effect of leadership from principal. Evidently, studies propose that even though the school principal has significant influence over the teaching and learning performance of teachers, it employed an indirect relationship. The relationship normally arises from factors such as fostering inspiration, dedication, and cultivating a supportive work environment (Leithwood et al., 2020). Besides, effective communication serves as a catalyst, enhancing synergy among colleagues and subsequently facilitating the establishment of trust among them (Yin & Zheng, 2018). According to the findings of Nguyen et al. (2021), their research unveiled that teachers demonstrate a heightened inclination toward collective innovativeness when they perceive a collaborative culture that actively encourages and supports their engagement in professional learning activities. In contrast, building trust with parents requires additional time, effort and consistent maintenance of relationships (Ho, 2012). Therefore, this research proposed the following hypothesis.

H_2: Faculty trust has a significant impact on teachers' professional learning.

Teachers' Professional Learning and Teachers' Self-Efficacy

According to Gümüş and Bellibaş (2021), the significance of teachers' professional learning and teachers' self-efficacy serve as pivotal benchmarks that consistently yield benefits for both teachers and students. A body of research has strongly supported the intricate relationship between active engagement in professional learning initiatives and subsequent improvement in the quality of classroom teaching and student learning outcomes (Burić & Kim, 2020; Calkins et al., 2021; Cochran-Smith et al., 2020). However, despite this robust foundation, there is a notable research gap regarding the precise role of professional learning in shaping teachers' self-efficacy (DePiper et al., 2021; Schina et al., 2021). It is important to understand that educational outcomes are not exclusively based on the theoretical postulates of professional learning, their influence is based on the competent implementation of these principles in practical educational contexts (Burić & Kim, 2020).

The research conducted by Schina et al. (2021) aimed to investigate the association between acceptance of educational robotics, self-efficacy, and perception of change among pre-service teachers who participated in a training program. The finding revealed a significant improvement in the self-efficacy of pre-service teachers after their participation in the educational robotics training program. The finding aligns with the assertion made by Casey et al. (2021), emphasizing the importance of consistent and ongoing training for teachers to make sure successful integration of technology and knowledge into their teaching practices. Additionally, Schina et al. (2021) also highlighted the importance of fostering an encouraging mindset and providing adequate resources in educational robotics training. These factors were found to contribute to the enhancement of self-efficacy among pre-service teachers. This underscores the significance of not only offering training opportunities but also creating a supportive environment that nurtures teachers' confidence and competence in implementing innovative teaching methods. Thus, this research proposed the following hypothesis.

H_3: Teachers' professional learning has a significant impact on teachers' self-efficacy.

Teachers' Professional Learning as a Mediator

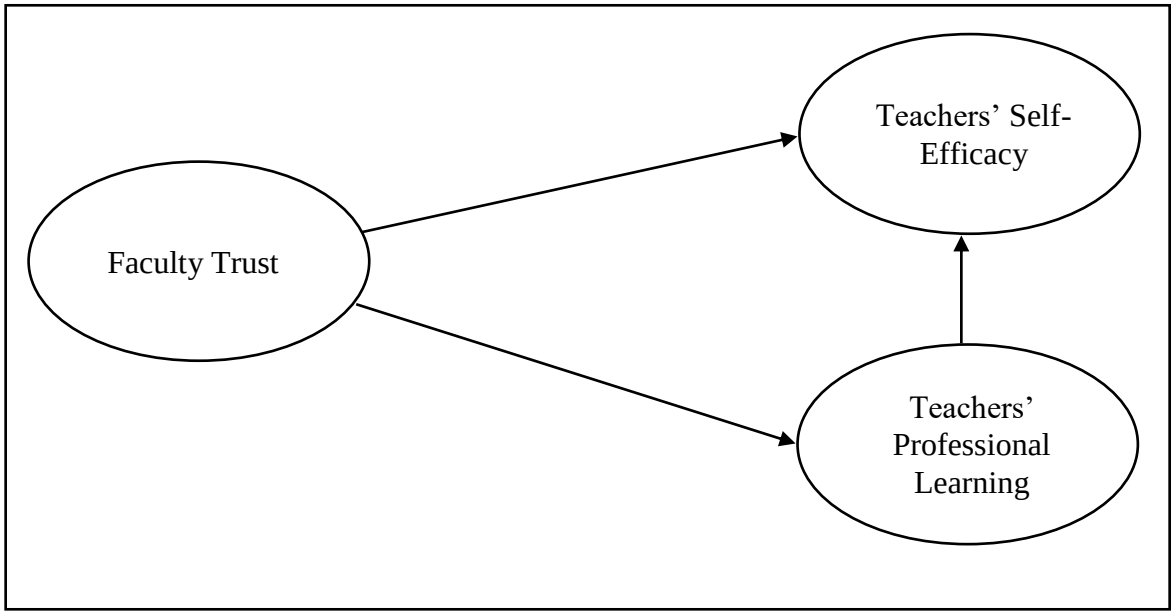
According to Barnes et al. (2018), teachers' professional learning content, teaching aid and learning environments are evolving as a result of the rapid advancement of information technology. Several research scholars believe that collaboration and reflection are the most powerful and effective learning techniques applied for teachers' professional learning in school settings (Muniandy, 2021; Sjoer & Meirink, 2016). Research by Ninković et al. (2022) suggests that effective professional learning communities thrive in an atmosphere of trust, where teachers are more willing to share experiences, engage in collaborative problem-solving, and openly discuss challenges. Faculty members are more likely to actively participate in professional learning activities and engage in reflective practices when they trust each other and their administrators. This collaborative and supportive environment nurtures a sense of belonging and shared purpose, reinforcing teachers' confidence in their abilities, and positively influencing their self-efficacy beliefs. Based on the mediation analysis by Ninković et al. (2022), the impact of teacher trust on teacher efficacy is partially mediated through professional learning. In light of these findings, this research presents a hypothesis that teachers' professional learning serves as a mediator between faculty trust and teachers' self-efficacy.

H_4: Teachers' professional learning mediates the impact of faculty trust and teachers' self-efficacy.

Research Model

Figure 1 exhibits the variables which were designed as the basis for the development of the model with four hypotheses in this study. The conceptual model consists of faculty trust, teachers' professional learning, and teachers' self-efficacy.

Figure 1: Research Model



RESEARCH METHODOLOGY

Samples and Procedures

A quantitative research design and cross-sectional method was used in this research. The targeted population of this study focuses on secondary school teachers in national schools under the Ministry of Education Malaysia, as they play a crucial role in nurturing students' talents and imparting knowledge (Burgueño et al., 2019). Teachers are believed to have insights into their effective practices to foster faculty trust and teachers' professional learning, thereby increasing teachers' self-efficacy. The selection of teachers was conducted using a proportional stratified sampling technique, ensuring a more accurate representation of the target population. Five secondary schools were randomly selected from each region of the Malaysia: Northern, Southern, Central, East Coast and East Malaysia which made up 25 secondary schools in total. There were 450 sets of self-administered questionnaires distributed to teachers from 25 secondary schools. A total of 430 questionnaires were successfully collected, which corresponds to a response rate of 95.6%. Table 1 presents the demographics of the participants.

Table 1: Demographic Profile of Sample

Demographics		Frequency	Percentage (%)
Gender			
	Male	109	25.35
	Female	321	74.65
Age			
	< 25 years old	7	1.63
	25 – 35 years old	69	16.05
	36 – 45 years old	160	37.21
	> 45 years old	194	45.11
Ethnicity			
	Malay	326	75.81
	Chinese	68	15.81
	Indian	18	4.19
	Others	18	4.19

Highest completed qualification		
Bachelor's degree / Advance diploma	364	84.65
Master's degree	62	14.41
Doctorate's degree	2	0.47
Others	2	0.47
Accumulated teaching experience		
< 1 year	14	3.26
1 – 3 years	19	4.42
4 – 6 years	30	6.98
7 – 9 years	36	8.37
≥ 10 years	331	76.97

Research Instruments

In this study, the five-point Likert scale is employed because the researchers recommended using a symmetrical and equidistant Likert scale, which is typically more clearly observed when evaluating latent variables (Hair et al., 2017). Teachers were asked to assess faculty trust and teachers' professional learning on a scale of 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree, and 5 for strongly agree. Additionally, teachers' self-efficacy is measured by assigning 1 for no influence, 2 for very little influence, 3 for somewhat influence, 4 for quite a bit influence, and 5 for a great deal influence.

In this study, the concept of faculty trust was adapted from Hoy and Tschannen-Moran (2007). The adapted measurement includes a total of 16 items, organized into two dimensions: (a) trust in school leaders (8 items), and (b) trust in colleagues (8 items). In a Malaysian study conducted by Choong et al. (2020), the Cronbach's alpha coefficients for the attributes of faculty trust were found to be 0.931 for trust in the principal and 0.927 for trust in the colleagues.

Next, teachers' professional learning employed the framework of Liu et al. (2016b). Liu et al. (2016b) adopted the fundamental source of Kwakman (2003) for determining the nature and degree of teachers' engagement to professional learning, and the items for each dimension were integrated from multiple past developed scales. This measurement consists of 27 items from four dimensions: (a) collaboration (6 items), (b) reflection (10 items), (c) experimentation (5 items), and (d) reach out to the knowledge base (6 items). The Cronbach's alpha coefficient for the main construct, teachers' professional learning, yielded a high reliability score of 0.950. This construct comprises sub-dimensions with individual Cronbach's alpha coefficient of 0.849 for collaboration, 0.891 for reflection, 0.871 for experimentation, and 0.843 for reaching out to the knowledge base.

The assessment of teachers' self-efficacy was based on the scale developed by Tschannen-Moran and Hoy (2001). This scale, known as the Teachers' Sense of Efficacy Scale (TSES), comprehends three dimensions: (a) efficacy in instructional strategies (8 items), (b) efficacy in classroom management (8 items), and (c) efficacy in student engagement (8 items). The Cronbach's alpha coefficient for the main construct, teachers' self-efficacy, was 0.93. Additionally, the reliability values for the specific dimensions of self-efficacy were 0.89 for efficacy in instructional strategies, 0.89 for efficacy in classroom management, and 0.81 for efficacy in student engagement.

Data Analysis Techniques

The analysis of the relationships between the constructs, as presented in the model, was performed using Partial Least Squares-Structural Equation Modeling (PLS-SEM). The SmartPLS 4.0 software was employed to carry out this analysis. PLS-SEM was chosen for its versatile capabilities that allow the incorporation of advanced model components, including moderator variables, nonlinear relationships, and hierarchical element models (Hair Jr, Hult, Ringle, Sarstedt, Danks, et al., 2021; Henseler et al., 2012). In this research, the three investigated variables, faculty trust, teachers' professional learning, and teachers' self-efficacy are treated as second-order constructs. PLS-SEM offers the advantage of flexibility in establishing the relationship between items and constructs, and accounts for both reflective and formative constructs (Hair Jr, Hult, Ringle, & Sarstedt, 2021). Additionally, PLS-SEM proves valuable in situations where the data does not conform to a normal distribution, allowing researchers to effectively analyze such data (Hair et al., 2019). This adaptability improves the suitability of PLS-SEM for the diverse and complex nature of data that is often encountered in educational research.

DATA ANALYSIS

Assessment of Measurement Model (First-Order Construct)

Appendix 1 presents the results of the convergent validity analysis for the first-order construct. The score of composite reliability for variables ranged from 0.891 (reaching out to the knowledge base) to 0.937 (reflection). Thus, the inclusion of all construct items generally provides a positive indication of the

internal consistency and reliability of your measurement model. The majority of items within the first-order construct exhibited loadings greater than 0.708, which indicates a satisfactory level of reliability (Sobaih & Elshaer, 2022). However, we removed three items from Trust in School Leader construct (TSL6, TSL7, and TSL8) and two items from Trust in Colleague construct (TCO4 and TCO8) due to their outer loading values falling below 0.708 to improve the AVE scores for both construct's AVE scores. Whereas we retained two items from the Reflection dimension (RE2 and RE6), one item from the Experimentation dimension (EX5), and one item from Reaching Out to the Knowledge Base (RC4). This decision was made because the composite reliability and AVE for the RE, EX, and RC dimensions exceeded the minimum threshold of 0.708 and 0.500, respectively. Table 2 shows that the AVE for each first-order construct surpassed the cut-off value of 0.500 (Bagozzi & Yi, 1988). In view of the results presented above, the measurement model for first-order constructs possesses sufficient convergent validity.

Assessment of Measurement Model (Second-Order Construct)

Table 2 reveals the factor loading values of the second-order construct. All second-order constructs items exceeded the thresholds value of 0.708. In addition, the composite reliability values of all constructs were above the minimum threshold of 0.708 and the AVE scores for each construct exceeded the required threshold of 0.500. Therefore, the convergent validity of the second-order construct was well-ascertained.

Table 2: Convergent Validity (Second-Order Construct)

Second Order Construct	First Order Construct	Loading	C.R	AVE
Faculty Trust			0.918	0.506
	Trust in School Leader	0.831		
	Trust in Colleagues	0.874		
Professional Learning			0.968	0.530
	Collaboration	0.883		
	Reflection	0.962		
	Experimentation	0.893		
	Reaching Out to the Knowledge Base	0.904		
Self-Efficacy			0.966	0.544
	Efficacy in Instructional Strategies	0.941		
	Efficacy in Classroom Management	0.938		
	Efficacy in Student Engagement	0.929		

Heterotrait-Monotrait (HTMT) correlation ratio result for second-order construct. The computed HTMT ratio for all constructs were below the threshold of 0.90 (Dar & Mishra, 2020; Henseler et al., 2015) which less than the threshold value of 0.90 (Gold, Malhotra & Segars, 2011). Thereby, this indicated that the measurement model had adequate discriminant validity.

Assessment of Structural Model

A bootstrapping technique with 5000 re-samples was performed to generate the path coefficient, t-statistics, and p-value for both direct and indirect effects. The statistical result indicates that faculty trust and professional learning contributed 58.8 percent of the variation that can be explained by the endogenous construct of self-efficacy among Malaysian secondary school teachers. As a rule of thumb, an R^2 value in the range of 50 percent to 74.9 percent is considered a moderate effect (Hair et al., 2021). This suggests that faculty trust and teachers' professional learning have moderate effects on teachers' self-efficacy.

Table 3 demonstrates the path coefficient, standard error, t-statistics, and confidence interval. The results indicate that both faculty trust ($\beta = 0.249$, $t = 3.578$, $p < 0.01$) and teachers' professional learning ($\beta = 0.582$, $t = 7.777$, $p < 0.01$) have a significant positive impact on teachers' self-efficacy. Hence, hypotheses H_1 and H_3 are supported. Furthermore, the analysis reveals that faculty trust ($\beta =$

0.646, t = 12.188, p < 0.01) significantly and positively impact teachers' professional learning, supporting hypothesis H_2.

For mediation path analysis, the relationship between faculty trust and teachers' self-efficacy is significantly mediated by teachers' professional learning. As proposed by Zhao et al. (2010) and Hair et al. (2017), the mediation path should be classified as partial mediation when both the direct and indirect effects are statistically significant. Conversely, it should be classified as full mediation when the direct effect is not statistically significant. Therefore, the findings demonstrated that teachers' professional learning partially mediates the impact of faculty trust on teachers' self-efficacy (β = 0.376, t = 6.166, p < 0.01). As a result, hypothesis H_4 is supported.

Table 3: Hypotheses Testing

Hypothesis	*β*	*SE*	*t* statistics	Lower 5%	Upper 5%	Decision
H_1: FT → SE	0.249	0.070	3.578*	0.118	0.389	Supported
H_2: FT → PL	0.646	0.053	12.188*	0.544	0.750	Supported
H_3: PL → SE	0.582	0.075	7.777*	0.431	0.716	Supported
H_4: FT → PL → SE	0.376	0.061	6.166*	0.252	0.500	Supported

Note. β = Beta Coefficient, SE = Standard Error, LCL = Learning-Centered Leadership, FT = Faculty Trust, PL = Professional Learning, SE = Self-Efficacy.
*Significance at the 0.01 level.

DISCUSSION AND CONCLUSION

The findings of the study demonstrates that faculty trust has a significant and positive impact on teachers' self-efficacy in the context of Malaysian national secondary schools. The findings in this study are consistent with the research by Choong et al. (2020), Çoban et al. (2020), and Dzul et al. (2023) which supports the notion that faculty trust plays a significant role in affecting teachers' self-efficacy. According to Choong et al. (2020), the importance of faculty trust has the potential to motivate and empower teachers to step beyond their comfort zones and experiment with creative teaching approaches. These positive experiences contribute to teachers' confidence in their abilities to promote constructive transformation, resulting in increased teachers' self-efficacy.

Second, faculty trust has a significant and positive impact on teachers' professional learning in the context of Malaysian national secondary schools. The findings in this study are consistent with the research by Bektaş et al. (2022), Choong et al. (2020), Dzul et al. (2023), and Thien et al. (2023). Teachers with a high level of faculty trust are more likely to participate in open discussions and actively seek input or guidance from their school leaders and colleagues. These interactions facilitate the exchange of various viewpoints and insights, lead to reflective practices and enrich the teachers' knowledge base. In this collaborative learning environment, teachers tend to broaden their knowledge and skills, thereby enhancing their intrinsic motivation for further professional learning (Dzul et al., 2023).

Third, teachers' professional learning has a significant impact on teachers' self-efficacy in the context of Malaysian national secondary schools. The results of this study are similar to the findings of Gordon et al. (2022), Gümüş and Bellibaş (2020), and Wray et al. (2022), who both agreed that engaging in professional learning increases teachers' self-efficacy during periods of educational reform. Professional learning is an ever-changing and continuous endeavor that aims to improve teachers' knowledge, expertise, and teaching techniques. For instance, teachers who actively participate in professional learning initiatives can learn a variety of strategies that help them successfully adapt to different learning demands. This problem-solving skill increases teachers' self-efficacy by demonstrating their ability to constantly refine their teaching strategies, adapt to the transforming educational landscape, and subsequently improve their teaching effectiveness (Barton & Dexter, 2020).

Lastly, teachers' professional learning partially mediates the impact of faculty trust and teachers' self-efficacy in the context of Malaysian national secondary schools. According to Bandura's social cognitive theory, the four sources of self-efficacy, comprising mastery experiences, vicarious experiences, verbal persuasion, and psychological and emotional arousal, emerge from professional learning activities. When teachers implement teaching and learning methodologies, they not solely gain mastery experience, yet also receive feedback on performance through interaction with peer and classroom observation models. This reinforces their belief in their teaching skills and inspires them to pursue more challenging instructional approaches (Bruce & Ross, 2008). Furthermore, Dzul et al. (2023) highlighted that teachers are empowered to broaden their pedagogical knowledge and skills through well-structured professional learning opportunities such as peer observation, reflection practices, workshops, and similar approaches. These practical techniques are then effectively integrated into their classroom, resulting in a significant

increase in teachers' self-efficacy. Hence, the combination of trust and effective professional learning experiences has a transformative impact on teachers' self-efficacy.

In conclusion, the integration of technology into education has ushered in a transformative era, elevating the global quality of both learning and teaching. Consequently, the significance of teachers' professional learning remains a pivotal factor within the context of Malaysia education sector. The study demonstrated that faculty trust has a significant and positive impact on teachers' self-efficacy with teachers' professional learning serving as a mediator. To build a positive school environment, the presence of trusting culture within the school community encourages teachers to engage in open ideas sharing, collaborative efforts, observational learning, constructive feedback, and sharing of best teaching practices with colleagues. This collaborative engagement encourages teachers to further develop their confidence and effectiveness in their teaching methodologies.

IMPLICATIONS

The findings of this research proved the importance of teachers' professional learning as a resource that can improve teachers' self-efficacy in the context of Malaysian national secondary schools. This implies that when teachers actively engage in different forms of professional development, they not merely improve their teaching abilities but also cultivate confidence in their capacity to overcome classroom obstacles and support student achievement. The relationship between professional learning and self-efficacy highlights the vital role of continuous learning and skill development, enabling teachers to navigate the changing educational landscape with competence and confidence. Teachers' self-efficacy increases when they successfully integrate innovative approaches into their teaching, leading to an overall improvement in their classroom effectiveness.

In formulating educational policies, policymakers are encouraged to comprehend the interrelationships between faculty trust, teachers' professional learning, and teachers' self-efficacy. Policymakers need to acknowledge that investments in teachers' professional learning should extend beyond the conventional emphasis on content knowledge (Thien et al., 2023). Although subject-matter knowledge remains crucial, equal attention should be given to developing fundamental interpersonal competencies, encouraging collaborative practices, and cultivating a climate of mutual trust among teachers. In addition, policymakers should allocate adequate resources to initiatives that support professional learning opportunities for teachers (Thien et al., 2022), recognizing that professional learning serves as a catalyst for improving faculty trust and teachers' self-efficacy. Simultaneously, policy considerations should focus on creating a climate of trust and collaboration within schools. This highlights the necessity for an integrated and synergistic method in shaping educational policies. Policymakers can promote an educational atmosphere that enhances both teaching quality and instills a sense of professional empowerment among teachers, which is achieved by integrating aspects encompassed in these three constructs. As a result, this has the potential to have a favorable influence on student learning results and holistic educational experiences.

Moreover, this study provided insights for school principals. Drawing from the findings of this research, it is advocated that the school principal exemplifies an intense dedication to continuous professional learning (Dzul et al., 2023). When principals are enthusiastic about their professional development and exhibit a willingness to learn and adapt, it conveys an important message to teachers concerning the significance of continuous development (Aslan et al., 2023). This modeling behavior has the potential to have a significant impact on teachers' perspectives on professional learning and self-efficacy. Additionally, school principals can play a pivotal role in establishing an environment where teachers can confidently explore and experiment with new teaching techniques without fear of failure. Teachers are more inclined to actively participate in professional learning that contributes to the enhancement of their self-efficacy when they are aware of the support that they receive from both their principal and colleagues. Principals should provide constructive feedback and recognize teachers' commitment to professional learning. Through positive reinforcement and appreciation of teachers' contribution, their self-confidence and self-efficacy can be strengthened.

LIMITATIONS AND FUTURE RESEARCH

The use of cross-sectional survey methodology in this study with its intrinsic characteristic of obtaining data at a specific point of time and providing a static view of the relationship between variables (Thomas, 2023). As Carlson and Morrison (2009) stated, "the main limitation of the design of the cross-sectional study is that because exposure and outcome are assessed simultaneously, there is generally no evidence of a temporal relationship between exposure and outcome" (p. 77). Therefore, future scholars are recommended to adopt a longitudinal research design. Longitudinal research is an in-depth strategy for examining changes, patterns, and casual relationships over time. Researchers can determine whether

changes in one variable correlate with changes in another variable by obtaining information at multiple points, contributing to the establishment of causal relationships.

REFERENCES

Aslan, M., Arisoy, E., & Gören, T. (2023). The relationship between learning-centered leadership and professional learning: A study on SAC teachers. Journal of Theoretical Educational Science, 16(1), 142-162. https://doi.org/10.30831/akukeg.1179861

Babbie, E. R. (2020). The practice of social research. Cengage learning.

Bandura, A. (1986). Social foundation of thought and action. Englewood Cliffs, NJ, 1986(23-28).

Bandura, A. (1991). Social cognitive theory of self-regulation. Organizational Behavior and Human Decision Processes, 50(2), 248-287. https://doi.org/10.1016/0749-5978(91)90022-L

Bandura, A. (1997). The anatomy of stages of change. American Journal of Health Promotion, 12(1), 8-10. https://doi.org/10.4278/0890-1171-12.1.8

Barnes, A. E., Zuilkowski, S. S., Mekonnen, D., & Ramos-Mattoussi, F. (2018). Improving teacher training in Ethiopia: Shifting the content and approach of pre-service teacher education. Teaching and Teacher Education, 70, 1-11. https://doi.org/10.1016/j.tate.2017.11.004

Barton, E. A., & Dexter, S. (2020). Sources of teachers' self-efficacy for technology integration from formal, informal, and independent professional learning. Educational Technology Research and Development, 68, 89-108. https://doi.org/10.1007/s11423-019-09671-6

Bektaş, F., Kılınç, A. Ç., & Gümüş, S. (2022). The effects of distributed leadership on teacher professional learning: mediating roles of teacher trust in principal and teacher motivation. Educational Studies, 48(5), 602-624. https://doi.org/10.1080/03055698.2020.1793301

bin Othman, M. S., bin Abd Latif, M. A., & bin Husin, A. Z. (2021). Cabaran dan halangan pelaksanaan pengajaran dan pembelajaran Pendidikan Islam yang mengintergrasikan kemahiran berfikir aras tinggi. Jurnal Penyelidikan Dedikasi, 17, 150-168. https://myjms.mohe.gov.my/index.php/jd/article/view/12410

Bruce, C. D., & Ross, J. A. (2008). A model for increasing reform implementation and teacher efficacy: Teacher peer coaching in grades 3 and 6 mathematics. Canadian Journal of Education/Revue canadienne de l'éducation, 346-370. http://www.jstor.org/stable/20466705.

Burgueño, R., Sicilia, A., Medina-Casaubón, J., Alcaraz-Ibañez, M., & Lirola, M. J. (2019). Psychometry of the teacher's sense of efficacy scale in Spanish teachers' education. The Journal of Experimental Education, 87(1), 89-100. https://doi.org/10.1080/00220973.2018.1423542

Burić, I., & Kim, L. E. (2020). Teacher self-efficacy, instructional quality, and student motivational beliefs: An analysis using multilevel structural equation modeling. Learning and Instruction, 66. https://doi.org/10.1016/j.learninstruc.2019.101302

Cai, Y., & Tang, R. (2021). School support for teacher innovation: Mediating effects of teacher self-efficacy and moderating effects of trust. Thinking Skills and Creativity, 41. https://doi.org/10.1016/j.tsc.2021.100854

Calkins, L., Yoder, P., & Wiens, P. (2021). Renewed purposes for social studies teacher preparation: An analysis of teacher self-efficacy and initial teacher education. Journal of Social Studies Education Research, 12(2), 54-77. https://www.learntechlib.org/p/219852/.

Carlson, M. D., & Morrison, R. S. (2009). Study design, precision, and validity in observational studies. Journal of Palliative Medicine, 12(1), 77-82. https://doi.org/10.1089/jpm.2008.9690

Casey, J. E., Pennington, L. K., & Mireles, S. V. (2021). Technology acceptance model: Assessing preservice teachers' acceptance of floor-robots as a useful pedagogical tool. Technology, Knowledge and Learning, 26, 499-514. https://doi.org/10.1007/s10758-020-09452-8

Choong, Y. O., Ng, L. P., Seow, A.N., & Tan, C. E. (2020). The role of teachers' self-efficacy between trust and organisational citizenship behaviour among secondary school teachers. Personnel Review, 49(3), 864-886. https://doi.org/10.1108/PR-10-2018-0434

Çoban, Ö., Özdemir, N., & Bellibaş, M. Ş. (2020). Trust in principals, leaders' focus on instruction, teacher collaboration, and teacher self-efficacy: Testing a multilevel mediation model. Educational Management Administration & Leadership. https://doi.org/10.1177/1741143220968170

Cochran-Smith, M., Grudnoff, L., Orland-Barak, L., & Smith, K. (2020). Educating teacher educators: International perspectives. The New Educator, 16(1), 5-24. https://doi.org/10.1080/1547688X.2019.1670309

Dar, I. A., & Mishra, M. (2020). Dimensional impact of social capital on financial performance of SMEs. The Journal of Entrepreneurship, 29(1), 38-52. https://doi.org/10.1177/097135571989349

DePiper, J. N., Louie, J., Nikula, J., Buffington, P., Tierney-Fife, P., & Driscoll, M. (2021). Promoting teacher self-efficacy for supporting English learners in mathematics: Effects of the Visual Access to Mathematics professional development. ZDM Mathematics Education, 53, 489-502. https://doi.org/10.1007/s11858-021-01227-4

Dogru, O. (2020). An investigation of pre-service visual arts teachers' perceptions of computer self-efficacy and attitudes towards web-based instruction. International Journal of Research in Education and Science, 6(4), 629-637.

Dzul, H., Hussin, Z., & Sulaiman, A. M. (2023). The effect of professional learning community mediators on trust and self-efficacy of Islamic education teachers in Malaysia. Malaysian Journal of Learning & Instruction, 20(1), 1-32. https://doi.org/10.32890/mjli2023.20.1.1

Ebrahimi, S. S., & Jiar, Y. K. (2018). The use of technology at Malaysian public high schools. Merit Research Journal of Education and Review, 6(3), 54-60.

Educational Technology Division of Malaysia [ETD]. (2017). Dokumentasi Kajian & Laporan Pemantauan 2013-2015. Malaysia: Kuala Lumpur.

Engin, G. (2020). An examination of primary school students' academic achievements and motivation in terms of parents' attitudes, teacher motivation, teacher self-efficacy and leadership approach. International Journal of Progressive Education, 16(1), 257-276. https://doi.org/10.29329/ijpe.2020.228.18

Fathi, J., & Derakhshan, A. (2019). Teacher self-efficacy and emotional regulation as predictors of teaching stress: An investigation of Iranian English language teachers. Teaching English Language, 13(2), 117-143.

Geisser, S. (1974). A predictive approach to the random effect model. Biometrika, 61(1), 101-107. https://doi.org/10.1093/biomet/61.1.101

Goh, P. S. C., Canrinus, E. T., & Wong, K. T. (2020). Preservice teachers' perspectives about coherence in their teacher education program. Educational Studies, 46(3), 368-384. https://doi.org/10.1080/03055698.2019.1584856

Gordon, D., Blundell, C., Mills, R., & Bourke, T. (2022). Teacher self-efficacy and reform: A systematic literature review. The Australian Educational Researcher, 1-21. https://doi.org/10.1007/s13384-022-00526-3

Gümüş, E., & Bellibaş, M. Ş. (2021). The relationship between the types of professional development activities teachers participate in and their self-efficacy: A multi-country analysis. European Journal of Teacher Education, 1-28. https://doi.org/10.1080/02619768.2021.1892639

Gümüş, S., & Bellibaş, M. Ş. (2020). The relationship between professional development and school principals' leadership practices: the mediating role of self-efficacy. International Journal of Educational Management, 34(7), 1155-1170. https://doi.org/10.1108/IJEM-10-2019-0380

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). A primer on Partial Least Squares-Structural Equation Modeling (PLS-SEM). Sage publications.

Hair Jr, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M., Danks, N.P., & Ray, S. (2021). An introduction to Structural Equation Modeling. In: Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R. Classroom Companion: Business. Springer, Cham. https://doi.org/10.1007/978-3-030-80519-7_1

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. Journal of the Academy of Marketing Science, 45, 616-632. https://doi.org/10.1007/s11747-017-0517-x

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24.

Hargreaves, A. (2007). Sustainable professional learning communities. In L. Stoll & K. S. Louis (Eds.), Professional Learning Communities: Divergence, Depth and Dilemmas (pp. 181-195). Maidenhead: McGraw-Hill Open University Press.

Henseler, J., Fassott, G., Dijkstra, T. K., & Wilson, B. (2012). Analysing quadratic effects of formative constructs by means of variance-based structural equation modelling. European Journal of Information Systems, 21(1), 99-112. https://doi.org/10.1057/ejis.2011.36

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43, 115-135. https://doi.org/10.1007/s11747-014-0403-8

Ho, D. (2012). The paradox of power in leadership in early childhood education. Peabody Journal of Education, 87(2), 253-266. https://doi.org/10.1080/0161956X.2012.664479

Hoy, W. K., & Tschannen-Moran, M. (2007). The conceptualization and measurement of faculty trust in schools: The omnibus T-Scale. In W.K. Hoy & M. F. DiPaola, Essential Ideas for Reform of American Schools (pp. 87-114). Information Age Publishing: Greenwich: CT.

https://doi.org/10.1016/j.tate.2019.03.019

Hui, L. S., & Singh, G. S. B. (2020). The influence of instructional leadership on learning organisation at high performing primary schools in Malaysia. Asian Journal of University Education, 16(2), 69-76. https://doi.org/10.24191/ajue.v16i2.10298

Ismail, S. N., Omar, M. N., & Raman, A. (2021). The authority of principals' technology leadership in empowering teachers' self-efficacy towards ICT use. International Journal of Evaluation and Research in Education, 10(3), 878-885. https://doi.org/10.11591/ijere.v10i3.21816

Karacabey, M. F., Bellibaş, M. Ş., & Adams, D. (2022). Principal leadership and teacher professional learning in Turkish schools: Examining the mediating effects of collective teacher efficacy and teacher trust. Educational studies, 48(2), 253-272. https://doi.org/10.1080/03055698.2020.1749835

Kwakman, K. (2003). Factors affecting teachers' participation in professional learning activities. Teaching and Teacher Education, 19(2), 149-170. https://doi.org/10.1016/S0742-051X(02)00101-4

Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. School Leadership & Management, 40(1), 5-22. https://doi.org/10.1080/13632434.2019.1596077

Liu, S., Hallinger, P., & Feng, D. (2016a). Learning-centered leadership and teacher learning in China: Does trust matter?. Journal of Educational Administration, 54(6), 661-682. https://doi.org/10.1108/JEA-02-2016-0015

Liu, S., Hallinger, P., & Feng, D. (2016b). Supporting the professional learning of teachers in China: Does principal leadership make a difference?. Teaching and Teacher Education, 59, 79-91. https://doi.org/10.1016/j.tate.2016.05.023

Ministry of Education Malaysia [MOE]. (2018). Annual Report 2017: Malaysian Education Blueprint 2013-2025. Malaysia: Putrajaya.

Ministry of Education Malaysia [MOE]. (2019). Annual report 2019: Malaysia Education Blueprint 2013-2025. https://www.moe.gov.my

Muliati, L., Asbari, M., Nadeak, M., Novitasari, D., & Purwanto, A. (2022). Elementary school teachers performance: How the role of transformational leadership, competency, and self-efficacy?. International Journal of Social and Management Studies, 3(1), 158-166. https://doi.org/10.5555/ijosmas.v3i1.97

Muniandy, I. (2021). The influence of the dominant teacher's professional learning dimensions on commitment of national secondary school's teachers in Penang. Journal of Contemporary Issues and Thought, 11, 20-34. https://doi.org/10.37134/jcit.vol11.2.2021

Nguyen, D., Pietsch, M., & Gümüş, S. (2021). Collective teacher innovativeness in 48 countries: Effects of teacher autonomy, collaborative culture, and professional learning. Teaching and Teacher Education, 106. https://doi.org/10.1016/j.tate.2021.103463

Ninković, S., Florić, O. K., & Đorđić, D. (2022). The effect of teacher trust in colleagues on collective teacher efficacy: Examining the mediating role of the characteristics of professional learning communities. Teaching and Teacher Education, 119, 103877. https://doi.org/10.1016/j.tate.2022.103877

Polatcan, M., Arslan, P., & Balci, A. (2021). The mediating effect of teacher self-efficacy regarding the relationship between transformational school leadership and teacher agency. Educational Studies. https://doi.org/10.1080/03055698.2021.1894549

Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. European Journal of Education Studies.

Razak, N., Ab Jalil, H., & Ismail, I. (2019). Challenges in ICT integration among Malaysian public primary education teachers: The roles of leaders and stakeholders. International Journal of Emerging Technology in Learning (iJET), 14(24), 184-205. https://doi.org/10.3991/ijet.v14i24.12101

Rerah, N. F. B., & Mohamed, M. F. (2021). Tahap pengetahuan, kemahiran dan sikap Guru Pendidikan Islam (GPI) terhadap kesediaan pengajaran dan pembelajaran (PdP) Mod Atas Talian. Malaysian Journal of Social Sciences and Humanities (MJSSH), 6(10), 82-89. https://doi.org/10.47405/mjssh.v6i10.1076

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In Handbook of Market Research (pp. 587-632). Cham: Springer International Publishing.

Schina, D., Valls-Bautista, C., Borrull-Riera, A., Usart, M., & Esteve-González, V. (2021). An associational study: Preschool teachers' acceptance and self-efficacy towards educational robotics in a pre-service teacher training program. International Journal of Educational Technology in Higher Education, (18), 28. https://doi.org/10.1186/s41239-021-00264-z

Sjoer, E., & Meirink, J. (2016). Understanding the complexity of teacher interaction in a teacher professional learning community. European Journal of Teacher Education, 39(1), 110-125. https://doi.org/10.1080/02619768.2014.994058

Sobaih, A. E. E., & Elshaer, I. A. (2022). Personal traits and digital entrepreneurship: A mediation model using SmartPLS data analysis. Mathematics, 10(21), 3926. https://doi.org/10.3390/math10213926

Stoll, L., & Louis, K. S. (2007). Professional learning communities: Elaborating new approaches. In L. Stoll and K. S. Louis (Eds.), Professional Learning Communities: Divergence, Depth and Dilemmas (pp. 1–14). Open University Press, London.

Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. Journal of the Royal Statistical Society: Series B (Methodological), 36(2), 111-133. https://doi.org/10.1111/j.2517-6161.1974.tb00994.x

Suroso, A., Hendriarto, P., Kartika MR, G. N., Pattiasina, P. J., & Aslan, A. (2021). Challenges and opportunities towards Islamic cultured generation: socio-cultural analysis. Linguistics and Culture Review, 5(1), 180–194. https://doi.org/10.21744/lingcure.v5n1.1203

Tai, M. K., Khalip, M., & Omar, A. K. (2022). Measuring teacher competency for the era of education 4.0: A study in Malaysian secondary schools. Asian Journal of University Education, 18(4), 966-980. https://doi.org/10.24191/ajue.v18i4.20006

Talebizadeh, S. M., Hosseingholizadeh, R., & Bellibaş, M. Ş. (2021). Analyzing the relationship between principals' learning-centered leadership and teacher professional learning: The mediation role of trust and knowledge sharing behavior. Studies in Educational Evaluation, 68. https://doi.org/10.1016/j.stueduc.2020.100970

Thien, L. M., Liu, S., Yee, L. Q., & Adams, D. (2023). Investigating a multiple mediated-effects model of instructional leadership and teacher professional learning in the Malaysian School Context: A partial least squares analysis. Educational Management Administration & Leadership, 51(4), 809-830. https://doi.org/10.1177/17411432211009892

Thien, L. M., Uthai, M., & Yeap, S. B. (2022). Does middle leaders' learning-centred leadership matter in promoting teacher professional learning? A partial least squares analysis. Educational Management Administration & Leadership. https://doi.org/10.1177/17411432221115522

Thomas, L. (2023, June 22). *Cross-Sectional Study | Definition, Uses & Examples*. Scribbr. Retrieved August 7, 2023, from https://www.scribbr.com/methodology/cross-sectional-study/

Tschannen-Moran, M. (2009). Fostering teacher professionalism in schools: The role of leadership orientation and trust. Educational Administration Quarterly, 45(2), 217-247. https://doi.org/10.1177/0013161X08330501

Tschannen-Moran, M., & Gareis, C. R. (2015). Principals, trust, and cultivating vibrant schools. Societies, 5, 256-276. https://doi.org/10.3390/soc5020256

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. Teaching and Teacher Education, 17(7), 783-805. https://doi.org/10.1016/S0742-051X(01)00036-1

Wray, E., Sharma, U., & Subban, P. (2022). Factors influencing teacher self-efficacy for inclusive education: A systematic literature review. Teaching and Teacher Education, 117. https://doi.org/10.1016/j.tate.2022.103800

Yin, H., & Zheng, X. (2018). Facilitating professional learning communities in China: Do leadership practices and faculty trust matter?. Teaching and Teacher Education, 76, 140-150. https://doi.org/10.1016/j.tate.2018.09.002

Yin, H., To, K. H., Keung, C. P. C., & Tam, W. W. Y. (2019). Professional learning communities count: Examining the relationship between faculty trust and teacher professional learning in Hong Kong kindergartens. Teaching and Teacher Education, 82, 153-163.

Yuen Onn, C., Nordin bin Yunus, J., Yusof, H. B., Moorthy, K., & Ai Na, S. (2018). The mediating effect of trust on the dimensionality of organisational justice and organisational citizenship behaviour amongst teachers in Malaysia. Educational Psychology, 38(8), 1010-1031. https://doi.org/10.1080/01443410.2018.1426836

Zheng, X., Yin, H., & Li, Z. (2019). Exploring the relationships among instructional leadership, professional learning communities and teacher self-efficacy in China. Educational Management Administration & Leadership, 47(6), 843-859. https://doi.org/10.1177/1741143218764176

Zheng, X., Yin, H., & Liu, Y. (2020). Are professional learning communities beneficial for teachers? A multilevel analysis of teacher self-efficacy and commitment in China. School Effectiveness and School Improvement, 32(2), 197–217. https://doi.org/10.1080/09243453.2020.1808484

Appendix 1

Convergent Validity (First-Order Construct)

Construct and Item	**Loading**	**C.A**	**C.R**	**AVE**	**VIF**
Trust in School Leader (TSL)		0.910	0.933	0.736	
TSL1	0.826				2.245
TSL2	0.872				2.833
TSL3	0.855				2.454
TSL4	0.878				2.871
TSL5	0.860				2.690
TSL6	-				-
TSL7	-				-
TSL8	-				-
Trust in Colleagues (TCO)		0.897	0.921	0.660	
TCO1	0.812				2.172
TCO2	0.843				2.617
TCO3	0.842				2.624
TCO4	-				-
TCO5	0.810				2.074
TCO6	0.733				1.709
TCO7	0.829				2.292
TCO8	-				-
Collaboration (CO)		0.915	0.934	0.702	
CO1	0.834				2.352
CO2	0.831				2.331
CO3	0.835				2.607
CO4	0.853				2.787
CO5	0.810				2.680
CO6	0.864				3.287
Reflection (RE)		0.924	0.937	0.597	
RE1	0.725				2.323
RE2	0.676				2.040
RE3	0.794				2.693
RE4	0.827				2.849
RE5	0.825				2.916
RE6	0.692				1.972
RE7	0.794				2.394
RE8	0.787				2.985
RE9	0.821				2.832
RE10	0.768				2.484
Experimentation (EX)		0.876	0.911	0.673	
EX1	0.818				2.137
EX2	0.868				2.774
EX3	0.869				2.730

EX4	0.837				2.849
EX5	0.696				1.472
Reaching Out to the Knowledge Base (RC)		0.852	0.891	0.576	
RC1	0.753				1.696
RC2	0.774				1.886
RC3	0.787				2.198
RC4	0.673				1.830
RC5	0.758				1.720
RC6	0.803				2.011
Efficacy in Instructional Strategies (IST)		0.911	0.928	0.617	
IST1	0.720				2.004
IST2	0.793				2.442
IST3	0.795				2.553
IST4	0.808				2.366
IST5	0.825				2.913
IST6	0.804				2.815
IST7	0.778				2.462
IST8	0.758				2.289
Efficacy in Classroom Management (CMA)		0.911	0.928	0.616	
CMA1	0.805				2.337
CMA2	0.790				2.259
CMA3	0.766				2.048
CMA4	0.762				2.024
CMA5	0.801				2.568
CMA6	0.776				2.103
CMA7	0.787				2.572
CMA8	0.790				2.228
Efficacy in Student Engagement (SEN)		0.916	0.932	0.631	
SEN1	0.722				1.951
SEN2	0.762				2.141
SEN3	0.801				2.468
SEN4	0.826				2.560
SEN5	0.827				3.185
SEN6	0.843				3.240
SEN7	0.805				2.297
SEN8	0.762				2.035

Note. C.A = Cronbach's Alpha, C.R = Composite Reliability, AVE = Average Variance Extracted, VIF = Variance Inflation Factor.
Item TSL6, TSL7, TSL8, TCO4, and TCO8 were removed because of the loading values less than the threshold 0.708.