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**THE EFFECT OF PROFESSIONAL LEARNING  
COMMUNITY MEDIATORS ON TRUST AND  
SELF-EFFICACY OF ISLAMIC EDUCATION  
TEACHERS IN MALAYSIA**

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**ABSTRACT**

**Purpose** – The purpose of this study was to determine the relationship between trust, professional learning community, and self-efficacy.

**Methodology** – This study used a quantitative approach via a survey that consisted of 47 items to collect relevant data. This survey included 112 primary schools with 642 Malaysian Islamic education teachers. A multilevel analysis was carried out to investigate the effect of group level variables (trust and professional learning community) towards the individual level variable (self-efficacy). Whereas, the mediator test used the Monte Carlo bootstrapping method.

**Findings** – Findings of the study suggests that the professional learning community mediates the relationship between trust and self-efficacy.

**Significance** – The results of this study showed that the professional learning community is the most important element in determining teacher self-efficacy. The outcomes of this study should also assist administrators in maintaining the professional learning community in schools so that it can work more efficiently and effectively.

**Keywords:** Trust, professional learning community, self-efficacy.

## INTRODUCTION

For the past three decades, scholars have agreed on the importance of trust in the school community to shape a positive and effective school climate (Bryk & Schneider, 2003; Tschannen-Moran & Hoy, 1998); as well as its impact on teacher performance, teaching practices, and student achievement (Fitria, 2018; Liou et al., 2016; Tschannen-Moran, 2004; Wahlstrom & Louis, 2008). Trust is also considered a necessity for teachers in managing curriculum changes and the challenges of globalization today as it is a form of support and motivation factor for teachers in applying new innovation or teaching (Cai & Tang, 2021; Goddard & Goddard, 2001). One of the challenges that teachers in Malaysia have to face is the demands of 21st century learning (Ministry of Education Malaysia, 2019) which requires teachers to provide active teaching and learning, to focus on the application of higher order thinking skills, to optimize the use of technology and teaching aids, as well as to be willing to innovate.

In order to meet these challenges and changes in the curriculum, teacher attitude plays a crucial role in the effectiveness of teaching and learning, as well as their readiness to educate (Abdullah & Darusalam, 2018; Soh et al., 2020). However, findings of the study regarding the attitude of Islamic education teachers show that there is still room for enhancement and improvement. Teachers of Islamic education are seen to be less competent, negative, and lack confidence (low self-efficacy) in their teaching ability (Jima'ain & Mohamad, 2020; Mustafa et al., 2018; Rerah & Mohamed, 2020) and harbor distrust of students' ability to learn (Othman et al., 2019).

In theory, Bandura (1997) explained that individuals' confidence and attitude are influenced by their level of self-efficacy. Efficacy is the

key for human agency due to its role in reducing stress in teachers (Gholami et al., 2016; Putwain & Embse, 2018; Zee & Koomen, 2016) by helping teachers to view themselves, their students, and new teaching practices in a positive light (Zheng et al., 2020), as well as being a major support to teachers' emotions (Zee & Koomen, 2016). In fact, teachers with low self-efficacy are seen to easily give up on lower performing students (Gibson & Dembo, 1984); are self-doubting, tend to dodge challenging tasks and quick to give up when faced with difficulties (Bandura, 1995). Thus, the self-efficacy of Islamic education teachers should be improved as a step in facing challenges of the education world and to develop a more positive attitude.

The effectiveness of teachers in schools is highly dependent on the value of teachers' trust in the school community which in turn affects the stability of the school structure (Adams, 2003). In fact, self-efficacy will also be hindered if the value of trust does not exist in workplace relationships (Goddard et al., 2001). Despite this, forging trust in the community at school has been found to be difficult (Tschannen-Moran & Hoy, 1998) and requires constant effort. Therefore, collaborative activities such as professional learning communities are seen to have the greatest influence on the level of self-efficacy of teachers. Teachers are seen to be more confident and have high effectiveness when their knowledge and skills are improved through practice sharing and collaborative activities (Sukserm & Takahashi, 2012; Swackhamer et al., 2009; Tschannen-Moran & Barr, 2004; Watson, 2006).

Based on studies conducted, professional learning communities can also be sustained and improved in terms of its effectiveness with the existence of a mutually trusting school environment (Bryk & Schneider, 2003; Lee et al., 2011; Melville & Hardy, 2018; Yin et al., 2019). The value of trust in the principal, colleagues, parents, and students is essential in the professional learning community to foster a courageous attitude to take risks, build mutual understanding, and share practices for the purpose of improving school achievement. Thus, in this situation, the professional learning community is seen to be able to act as a mediator because it can transfer the effects of the independent variables to the dependent variables.

However, studies on the role of professional learning communities as mediators of the relationship between trust and self-efficacy are rather

limited. This is because, studies related to the causal relationship between trust, professional learning communities, and teacher efficacy lack depth (Forsyth et al., 2011; Wahlstrom & Louis, 2008), clarity, and rarely explored in the literature (Leh, 2016; Yin et al., 2013; Yin et al., 2019). Moreover, most empirical studies of professional learning communities look less at the impact nor its relationship to variables of the teacher and school level such as teacher efficacy and trust (Hairon et al., 2015; Lee et al., 2011; Zheng et al., 2020).

Accordingly, this study analyzed the relationship of trust on self-efficacy, as well as the role of the professional learning community as a mediator between these variables. An understanding of the interaction of these variables can help administrators and teachers in identifying factors that can support and influence the self-efficacy of Islamic education teachers in Malaysia.

### **Research Questions and Hypotheses**

Based on the description, this study examines the following research questions:

1. Is there a significant influence between trust and professional learning community?
2. Is there a significant relationship between trust and self-efficacy?
3. Is there a significant relationship between professional learning community and self-efficacy?
4. Does professional learning community act as a mediator of the relationship between trust and self-efficacy?

Four null hypotheses were constructed in this study to seek answers to the research questions. The hypotheses are as follows:

H01: There is no significant influence between trust and professional learning community.

H02: There is no significant relationship between trust and self-efficacy.

H03: There is no significant relationship between professional learning community and self-efficacy.

H04: The professional learning community does not act as a mediator of the relationship between trust and self-efficacy.

## **LITERATURE REVIEW**

Admittedly, there are various definitions concerning trust, self-efficacy, and professional learning community. Since this study involved Islamic education teachers as respondents of the study, this study analyzed the definitions for the three variables based on the Islamic perspective and the Western perspective.

### **Trust**

Trust refers to interpersonal relationships between communities in a school. Trust in this study coincides with the values advocated in Islam which is to respect each other and not be arrogant (Qur'an, 31:18); trust and goodwill (Qur'an, 49:12); be open and always positive (Qur'an, 5:13). In the context of this study, the value of respect is an important factor in the organization of the school because teachers need to respect one another's competence, opinions, and ideas. Meanwhile, the values of trust and goodwill are extremely important in the school community since it requires teachers to work together to make decisions and fulfil the school's goals, mission, and vision. Teachers also need to be more open and to remain positive to any changes in terms of work culture, feedback, and reflections received for improvement.

The concept of trust began to be pioneered and extensively studied by Western researchers with the aim of creating a more positive and effective environment and relationships between communities in schools. From a Western perspective, Hoy and Tschannen-Moran (1999) defined trust as the behaviour, attitude, and willingness of an individual or group to take risks by placing the belief that another individual is benevolent, trustworthy, efficient, honest, and open. This concept of trust explains that to be a trusting and trustworthy person, several elements need to be adhered to namely interdependence and well-being, caring and welfare, efficient and skilled, integrity and not placing blame on others, sharing information and no culture of isolation. These elements will help create a prosperous and harmonious school environment, and even the whole community becomes confident to work together for the benefit of the students.

### **Self-Efficacy**

Self-efficacy refers to the strength of an individual's internal factors. From the Islamic perspective, the internal factor that is the driver

towards the formation and change of a Muslim's behavior is faith (Jaafar, 2014). For a Muslim, self-efficacy should be based on the faith that drives them to be confident and believe that every deed done must have value in the eyes of Allah. A firm faith will produce a high degree of sincerity. People who are sincere do not feel burdened, but are more responsible and willing to sacrifice to do something for the good of themselves and others. Therefore, faith and sincerity are seen as the key to self-efficacy in Islam that can shape the nature of *istiqamah*, does not give up easily, commitment, patience, and gratitude (Ismail & Wahid, 2018; Jaafar, 2014). In the context of this study, teachers with high self-efficacy will be dedicated to completing their duties in order to achieve their objectives, will constantly strive to improve their self-worth, will be diligent and responsible in completing tasks in order to achieve the best results, and will be patient in all difficulties and grateful for success.

This self-efficacy pioneered by Bandura (1986) refers to a teacher's belief in his or her ability to perform appropriate actions in order to achieve success in teaching (Tschannen-Moran, 1998); as well as the ability to cope with difficult and risky situations (Gibson & Dembo, 1984; Ross, 1994; Ross et al., 1996). The study of self-efficacy came to attention and emerged as an important topic by many researchers in education (Raudenbush et al., 1992) as it has been identified as an important variable in effective teaching (Gibson & Dembo, 1984). Teacher self-efficacy is frequently linked to teacher behavior in the classroom such as classroom management and strategies as well as student performance such as student self-efficacy, motivation, and achievement (Tschannen-Moran & Hoy, 2007; Woolfolk et al., 1990).

### **Professional Learning Community**

Professional learning communities refer to teacher collaboration groups and ongoing teacher learning. The culture of knowledge brought through the practice of this professional learning community is very much in line with the demands of Islam which upholds the position of knowledge (Qur'an, 58:11); and coincides with the concept of *ta'awun* (Qur'an, 5: 2) which is recommended in Islam which means helping each other. Islam celebrates something that leads to the addition of knowledge and is of mutual help in matters of goodness. In the context of this study, the concept of knowledge culture and *ta'awun* can be applied in organized life in schools through

collaborative activities such as professional learning communities. Collaborative activities in Islam have a very clear purpose which is to avoid ignorance among individuals and society. This is the concern and objective in the practice of professional learning communities (Mohd Yaakob et al., 2016) through knowledge sharing activities, opinions, discussions, feedback, and mutual assistance in improving the quality of teaching.

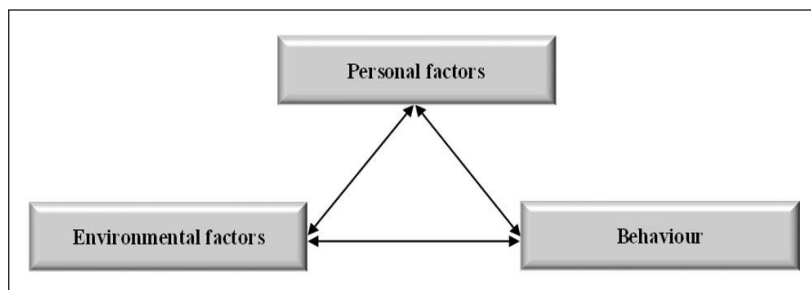
It is common knowledge that the concept of professional learning community was pioneered and widely studied by Western researchers with the aim of improving the quality of functions of an organization such as schools as well as the quality of teacher teaching. From a Western perspective, a professional learning community is specifically defined as a group of individual teachers who interact regularly by creating an environment that fosters cooperation and emotional support, shares practices, reflects, and collaborates to improve knowledge and skills to achieve educational goals and improve teaching and learning (Bryk et al., 1999; Dufour & Eaker, 1998; Hord, 1997; Stoll et al., 2006). The strength of collaborative relationships between colleagues provide opportunities for teachers to learn new teaching methods as well as make teaching practice a collective effort to achieve common goals (Bryk et al., 1999; Louis et al., 1996).

## **THEORETICAL FRAMEWORK**

Based on Social Cognitive Theory (Bandura, 1986), human actions operate in an interdependent structure that involves a reciprocal triad relationship which consists of personal factors (cognitive, affective, and biological conditions), behavioral, and environmental factors as in Figure 1. These three factors interact and influence each other through two directions. However, this theory sees personal efficacy as the key to human agency that can affect individual feelings, thoughts, self-motivation, and behavior (Bandura, 1990, 1997). Efficacy becomes an important mechanism in human action as opposed to environmental factors because individuals rely on a sense of confidence and effectiveness to achieve success and well-being in life. This is because social life is full of obstacles, difficulties, setbacks, disappointments, and inequalities. Thus, individuals need the strength of efficacy to cope successfully (Bandura, 1995).

**Figure 1**

*Triad Reciprocal Relationship Model*



Note: Modified model based on Bandura's (1986) model

From a cognitive aspect, high efficacy individuals set goals that challenge themselves as well as use analytical thinking to achieve results. The stronger the perceived effectiveness, the higher the goals to be set for oneself and the higher the commitment to be given (Bandura, 1993). The individual will act based on the goal to be achieved and this depends on the self-confidence of the individual whether confident of achieving it or not (Bandura, 2001). While from the affective aspect, individuals who are confident in their abilities will be able to cope with stress and depression experienced in difficult situations. Efficacy plays an important role in controlling such stress. Individuals with high efficacy will be more courageous in dealing with problematic situations, but individuals with low efficacy will become depressed and restless. Efficacy also has an impact on the type of activities and environment that individual choose to engage in. Individuals with low efficacy will avoid difficult tasks and view them as a personal threat. Individuals like this will always think of their own flaws, get easily depressed, and give up quickly (Bandura, 1995).

Seeing the important role of efficacy on individual behavior, it is important for teachers to increase their level of self-efficacy. Self-efficacy can only be formed through an appropriate environment to produce appropriate behavior (Bandura, 1977). Bandura (2002) also stated that in life management, individuals cannot control the direct influence brought on by social conditions and organizational practices in their daily lives. They need to rely on individuals with resources, expertise, and influence to achieve desired results. Hence, in the



context of this study the variables of trust and professional learning community are viewed as relevant environmental factors (Abu Bakar & Hamzah, 2019; Abu Bakar & Jamian, 2016; Lee et al., 2011; Okpogba, 2001; Paxton et al., 2014; Voelkel & Chrispeels, 2017) that can assist Malaysian Islamic education teachers in increasing their self-efficacy subsequently changing their behavior to become more confident and positive in teaching and learning.

## **METHODOLOGY**

### **Research Design**

This is a cross-sectional survey study that uses a quantitative approach to collect and analyze data. The design of this study is the best method of obtaining data to describe attitude, opinion, behavior, or characteristics of a large population (Babbie, 2016; Creswell, 2012). Data were collected from a selected sample at one point in time, and then analyzed statistically to test the study hypotheses, before interpreting the meaning of the data.

### **Population and Sampling**

In this study, the population consisted of primary school Islamic education teachers in national schools under the Ministry of Education Malaysia which totaled 39,323 teachers. As this study involved a large population and a wide geographic area, multistage cluster sampling was used to determine the study sample (Cohen et al., 2018; Creswell, 2012). The population was grouped into five zones, then a state was selected from each zone using simple random sampling. The five states consisted of Perlis representing the Northern Zone, Terengganu representing the East Coast Zone, Selangor representing the Central Zone, Negeri Sembilan representing the Southern Zone, and Sarawak representing the East Malaysia Zone. Next, schools in the five states were selected using simple random sampling as the study sample.

Since this study used multilevel analysis, the determination of sample size differed. In multilevel studies, there are variables at group (L2) and individual levels (L1). Thus, an adequate sample size is essential at each level to obtain the appropriate statistical strength. Thus, the minimum number for a group (L2) of 30 units (Kreft, 1996) with the

number of individuals of five persons in one unit (L1) is sufficient (Maas & Hox, 2005). As the number of samples in each zone cluster was different, thus sampling based on the ratio of the number of Islamic education teachers was used as suggested by Kothari (2004), and Sekaran and Bougie (2016). In this study, a total of 112 primary schools with 642 Islamic education teachers (five to seven Islamic education teachers per school) were randomly selected as samples of the study.

## **Instrumentation**

This study used a questionnaire as a research instrument distributed through Google Form links. The researcher obtained permission to conduct the study from the Education Policy Planning and Research Division and the state education department of the respective states. After that, the Islamic education officer in the respective state education departments and district education offices distributed the Google Form link to the selected study sample by telephone. Respondents' participation was voluntary and all forms of respondents' identity were kept confidential and could not be traced by any party.

The trust questionnaire was adapted from the Omnibus T-Scale (Hoy & Tschannen-Moran, 2003). After the exploratory factor analysis was conducted, the items in the questionnaire were extracted into three factors with the overall explanation of variance being 61.1 percent which was more than 60 percent as suggested by Hair et al. (2019). Three items were dropped because they had a loading factor value  $<0.45$  as specified. Next, another three items were dropped because they had a loading factor value  $<0.6$  after the confirmatory factor analysis was conducted. The analysis was again conducted on the modified model and showed a good fitness index (RMSEA = 0.63; TLI = 0.94; CFI = 0.94; GFI = 0.91). Three factors classified as trust in principle (5 items), trust in colleagues (7 items), and trust in clients (parents and students) (8 items) were measured using a total of 20 items on a five-point Likert scale. Cronbach's alpha coefficient values and composite reliability values for all three dimensions exceeded 0.70 as suggested by DeVellis (2017) and Hair et al. (2019).

Next, the professional learning community questionnaire was adapted from Teachers' Professional Community (Wahlstrom & Louis, 2008). The items in this questionnaire were extracted into three factors with

an explanation of variance being 72.5% which was more than 60 percent as suggested by Hair et al. (2019) and all items had a factor loading value  $> 0.45$ . The confirmatory factor analysis conducted showed that two items had MI values  $> 15$  although all other items had loading factor values  $> 0.6$ . Analysis was again conducted on the modified model and the results of the analysis showed a good fitness index (RMSEA = 0.73; TLI = 0.94; CFI = 0.95; GFI = 0.91). Three factors classified as collective responsibility (7 items), deprivation practice (4 items), and reflective dialogue (5 items) were measured using a total of 16 items on a five-point Likert scale. The values of the Cronbach's alpha coefficients and the composite reliability values for these three dimensions also exceeded 0.70 as suggested by DeVellis (2017) and Hair et al. (2019)

The self-efficacy questionnaire was adapted from the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001). The items in this questionnaire were extracted into three factors with an explanation of variance being 79.7 percent which was more than 60 percent as suggested by Hair et al. (2019). An item was dropped due to a factor loading value  $< 0.45$  as specified. The confirmatory factor analysis conducted showed a good fitness index (RMSEA = 0.77; TLI = 0.96; CFI = 0.97; GFI = 0.94). Three factors classified as student engagement (4 items), instructional strategies (3 items), and classroom management (4 items) were measured using a total of 11 items on a five-point Likert scale. The values of the Cronbach's alpha coefficients and the composite reliability values for these three dimensions also exceeded 0.70 as suggested by DeVellis (2017) and Hair et al. (2019).

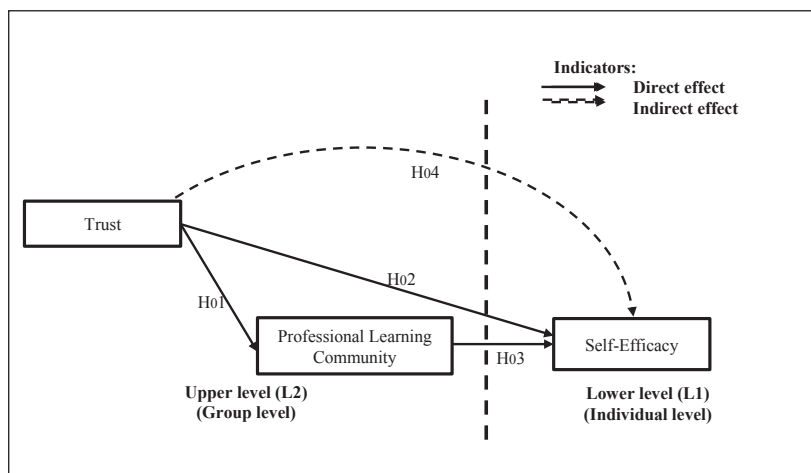
## **DATA ANALYSIS**

The data obtained from this study were analyzed through multilevel modeling due to the variables of trust and professional learning communities being multi-levelled in nature and nested at the school level (Chen et al., 2016; Forsyth et al., 2011; Hoy & Tschannen-Moran, 1999; Louis et al., 1996; Louis & Lee, 2016). In general, teachers who are in the same school will share similar perceptions or have a homogeneous element in their assessment (response) because they are under the influence of the same environment which is the school (MacKinnon, 2008). Thus, the unit of analysis for these two

variables was the school rather than the individual teacher. This study used HLM (hierarchical linear modeling) software (Raudenbush & Bryk, 2002) version 8.0, as the software is specifically designed to analyze data of a multilevel nature. This study used a two-level HLM as in Figure 2 to test the hypotheses as follows.

**Figure 2**

*Mediating Effect*



## FINDINGS

### Profile of Respondents

This study involved a total of 642 Islamic education teachers from 112 primary schools in five states represented by the respective zones in this study, with Selangor representing the Central Zone (25%), Negeri Sembilan representing the Southern Zone (23.2%), Terengganu representing the East Coast Zone (21.4%), Perlis representing the Northern Zone (16.1%), and Sarawak representing the East Malaysia Zone (14.3%).

Of the total number of respondents, 79.4 percent were female while 20.6 percent were male. In terms of experience, 29.8 percent of the respondents have teaching experience ranging from 11 to 15 years,

22.4 percent have teaching experience ranging from six to 10 years, 16.8 percent have teaching experience ranging from 21 to 25 years, 10.7 percent have teaching experience ranging from 16 to 20 years, 8.3 percent have teaching experience ranging from a year to 5 years and 12 percent have teaching experience ranging from 26 years and above.

Of the total 112 schools involved in the study, 59 percent were schools located in rural areas and 41 percent were schools located in urban areas. In terms of school size measured by student population, 35.71 percent of the schools have a student population of 400–699 people, 25.89 percent have a student population of 100–299 people, and 23.21 percent have a student population of 700–900 people. Only 15.17 percent of the schools have a student population of 1000 people and above. A summary of the respondents' demographic profile is shown in Table 1.

**Table 1**

*Demographic Profile of Respondents*

Demographic information		Frequency	Percentage
Gender	Male	132	20.6
	Female	510	79.4
Teaching experience	1-5 years	53	8.3
	6–10 years	144	22.4
	11–15 years	191	29.8
	16–20 years	69	10.7
	21–25 years	108	16.8
	26 years and above	77	12.0
School location	Urban areas	46	41
	Rural areas	66	59
School size (Student population in school)	100–299 people	29	25.89
	400–699 people	40	35.71
	700–999 people	26	23.21
	1000 people and above	17	15.17

Note: N = 642 individuals, 112 groups

## Aggregate Procedure

To determine the appropriateness of conducting multilevel modeling analysis, several procedures were carried out based on the recommendations of Mathieu and Taylor (2007). The mean values, standard deviation, correlation, mean rwg, FIII, and ICC (1) are summarized in Table 2 as follows. The results of Pearson bivariate correlation analysis showed that there was a significant relationship between the variables. The mean rwg value for trust and professional learning communities = 0.98 represented 98 percent homogeneity of perceptions of trust and professional learning communities in schools and indicated a high level of agreement (Chen et al., 2004). One-way random effects analysis of variance (ANOVA) i.e., FIII value for trust = 1.67,  $p < .001$  and professional learning community = 1.34,  $p < .05$  showed significant variance between groups. Next, the ICC (1) value of trust = 0.10 indicated that 10 percent of the variance in this variable was due to school factors while 90 percent was due to individual factors. While the ICC (1) value for the professional learning community = 0.05 showed that 5 percent of the variance in this variable was due to school factors while another 95 percent was due to individual factors. The ICC (1) values ranging from 0.05 to 0.25 were found to be acceptable for aggregate procedures (Bliese, 2000; Peugh, 2010; Snijders & Bosker, 2012).

**Table 2**

### *Correlation and Descriptive Analysis of Study Variables*

Variable	M	SD	1	2	3	Mean rwg	FIII	ICC (1)
1. Trust	4.17	.46	1			.98	1.67***	.10
2. Professional learning community	4.29	.45	.74**	1		.98	1.34*	.05
3. Self-efficacy	4.16	.48	.59**	.65**	1			

Note: N = 642 individuals, 112 groups

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

In addition, the interpretation of mean scores in this study was categorized into three levels, namely high (3.67 – 5.00), medium (3.66 – 2.34), and low (2.33 – 1.00) based on the procedure proposed by Best (1977). The mean values in Table 2 show that Islamic education

teachers in Malaysia had the highest levels of trust ( $M = 4.17, S.D = 0.46$ ), professional learning community practice ( $M = 4.29, S.D = 0.45$ ), and self-efficacy ( $M = 4.16, S.D = 0.48$ ).

## Results

Regression analysis was used to analyze the relationship between variables at an upper-level (Mathieu & Taylor, 2007). In this study, regression analysis was conducted to analyze the relationship between variables at the group level i.e., trust and professional learning community. The results of the analysis in the following Table 3 shows that changes in trust variables contributed to changes in professional learning community variables. The  $R^2$  value indicated that as much as 55.6 percent of the variance in the professional learning community variable was explained by the trust variable,  $R^2 = 0.556, F(1, 640) = 801.266, p = 0.000$ . Thus, trust had a significant influence on the professional learning community,  $\beta = 0.73, t = 28.30, p = 0.000$ , hence  $H01$  was rejected.

**Table 3**

*Results of Regression Analysis of Upper-Level Variable Relationships*

Variable	R <sup>2</sup>	F	Sig.	Beta	t	S. E
Trust	.55	801.26	.00	.73	28.30	.02

Note: N = 642 individuals, 112 groups

Next, a cross-level analysis was conducted to see the effect of the variables at the upper-level based on the results of the variables at the lower level. In this study, cross-level analysis involved the variables of trust and professional learning community that were at an upper-level (group level) based on the effect of variables that were at a lower-level (individual level), that is self-efficacy. Analysis of Model 1 in Table 4 showed that the relationship of trust at the group level was positively and significantly related to self-efficacy at the individual level ( $\gamma = .26, SE = .03, p < .001$ ), therefore  $H02$  was rejected. Whereas, the analysis of Model 2 in Table 4 as follows showed that the relationship of the professional learning community on self-efficacy was positive and significant ( $\gamma = 0.27, SE = 0.02, p < .001$ ), thus  $H03$  was rejected.

**Table 4**

*Cross-level Analysis*

Effect Model	Self-Efficacy 1	Self-Efficacy 2	Self-Efficacy 3
<b>Lower-level effect</b>			
Self-efficacy			
<b>Cross-level effect</b>			
Trust	0.26(0.03) ***		0.12(0.04) **
Professional learning community		0.27(0.02) ***	0.17(0.04) ***

Note: N = 642 individuals, 112 groups

\*\*p < .01, \*\*\*p < .001

The first value is the estimation of the parameter and the value in parentheses is the standard deviation.

To test the effect of mediators, the three conditions outlined by Baron and Kenny (1986) needed to be met. The first condition, based on Model 1 in Table 4, trust at the group level were positively and significantly related to self-efficacy at the individual level ( $\gamma = .26$ ,  $SE = .03$ ,  $p < .001$ ). As for the second condition indicated in the regression analysis in Table 3 showed that trust at the group level had a significant influence on the professional learning community at the same level ( $\beta = 0.73$ ,  $t = 28.30$ ,  $p = 0.000$ ). While, the third condition as shown in Model 3 in Table 4, the professional learning communities at the group level were positively and significantly related to self-efficacy at the individual level ( $\gamma = .17$ ,  $SE = .04$ ,  $p < .001$ ).

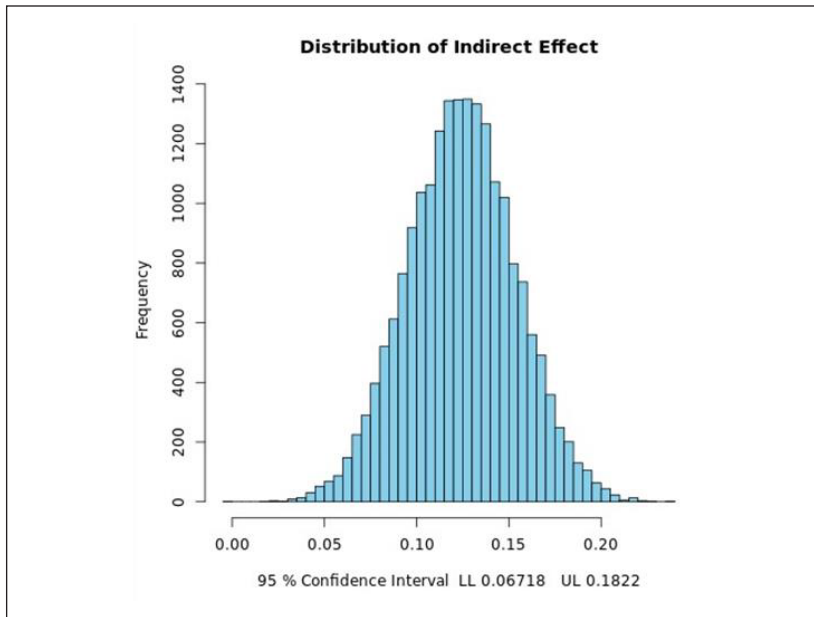
Mediation in the context of multilevel modeling analysis can involve independent variables and mediator variables measured either at the lower-level (individuals) or upper-level (groups) (Preacher & Selig, 2010). In this study, the mediator variable was at the group level (upper mediator) and tested using the Monte Carlo bootstrapping method. This method was proposed in previous studies to test the indirect effect of mediators (MacKinnon et al., 2004; Preacher & Hayes, 2004; Shrout & Bolger, 2002). Monte Carlo is a method used to construct confidence intervals for indirect effects (Preacher & Selig, 2010) by reporting lower-level and upper-level values.



To confirm the existence of a mediator effect, the lower-level (LL) and upper-level (UL) values did not contain zero values (MacKinnon et al., 2004). Based on the findings from the Monte Carlo bootstrapping test (Preacher & Selig, 2010), it was found that lower-level = 0.06 and upper-level = 0.18 were positive and did not contain zero values as in Figure 3. These results proved that the professional learning community variable served as mediator of the relationship between belief variables at the group level with self-efficacy at the individual level, therefore H04 was rejected.

**Figure 3**

*Monte Carlo Bootstrapping Test*



## DISCUSSION AND IMPLICATIONS

This section discusses the findings based on the data analysis of this study. The findings proved that trust and professional learning community can influence the self-efficacy of Islamic education teachers. This means that good interpersonal relationships as well as teacher partnerships and collaborative practices can help change

teachers' attitude to become more positive, confident, and secure to make changes. Findings in this study are in line with studies by Abu Bakar and Hamzah (2019), Choong et al. (2020), Çoban et al. (2020), Hoy and Tschannen-Moran (1999), Long et al. (2019), Paxton et al. (2014), Voelkel and Chrispeels (2017), and Zheng et al. (2019) which showed that trust and professional learning communities had a significant influence on self-efficacy. Nevertheless, these studies focused only on two variables either trust on self-efficacy or professional learning communities on self-efficacy.

The findings of this study used a multilevel approach that successfully tested the effect of trust and professional learning communities on self-efficacy, simultaneously and found that trust and professional learning communities at the group level are predictive factors to self-efficacy at the individual level. As a result of the findings of this study, it is possible to increase the level of self-efficacy of Islamic education teachers by creating a school climate of mutual trust and improving the knowledge and skills of Islamic education teachers through collaborative practices in the professional learning community. According to Bandura (1977), the environment can promote self-efficacy, thus the outcome of this study could contribute to the development of environmental factors.

In addition to influencing teachers' self-efficacy, trust also influences the practice of professional learning communities in schools. The findings of this study have proven empirically that trust factors can influence the level of practice of the professional learning community of Islamic education teachers in Malaysia. The findings of this study are also in line with studies by Liu et al. (2016), Bellibaş and Gümüş (2021), Yin et al. (2019), Chen et al. (2016), Yin and Zheng (2018) which showed that trust has a significant influence on professional learning communities. Nonetheless, these studies looked at the effects of trust factors on different dimensions of professional learning communities and that the studies did not test all three dimensions of trust (principal, colleagues, and clients). This indicated that the trust variable could influence the professional learning community in a variety of dimensions, contexts, and cultures.

Besides that, this study have also contributed to the literature; that there are other factors that can sustain the professional learning community in schools besides leadership factors (Admiraal et al., 2019; Hassan

et al., 2019; Ibrahim & Abdullah, 2014; Liu et al., 2016; Valckx et al., 2020). Trust emerges as an influential factor in fostering teachers' professional learning and is an effective strategy for administrators seeking to create a productive learning environment for their teachers (Karacabey et al., 2020; Liu et al., 2016). Change and development in a school are difficult to implement without the existence of trust (Cranston, 2011; Melville & Hardy, 2018).

Trust in the school community plays a role in shaping an effective work culture and organization (Gray, 2016; Hoy & Tschannen-Moran, 1999), and assists in effective collaboration, interaction, and communication (Gray & Summers, 2015; Hoy & Tschannen-Moran, 1999). Teachers who have a high level of trust in the community in school are more likely to engage in professional learning activities (Liu et al., 2016; Yin et al., 2019; Zheng et al., 2016). This is because a sense of trust between school communities allows them to work better to solve school problems and inspires teachers to continue redoubling their efforts (Tschannen-Moran, 2004), creating a safe and comfortable environment for effective collaboration (Cranston, 2011), helping to build a learning environment that assists students to succeed academically (Goddard et al., 2001), including supporting students' intrinsic motivation (Lee et al., 2019).

Furthermore, this study have also proved that the relationship of trust on self-efficacy is linked to the professional learning community that acts as a mediator. This is because through their involvement in the professional learning community, Islamic education teachers can increase their self-efficacy through the four sources of self-efficacy as suggested by Bandura (1977) namely mastery experiences, vicarious experiences, verbal persuasion, and also psychological and emotional arousal. Professional learning communities involve best practice sharing activities such as learning walks, lesson study and peer coaching among colleagues such as committee groups. Such activities become a resource in improving the self-efficacy of Islamic education teachers because through these activities, groups of Islamic education teachers need to plan and implement teaching (mastery experiences), observe the teaching of committee members (vicarious experiences), receive feedback and reflection from peers (verbal persuasion) and experience feelings of nervousness when observed by a partner (psychological and emotional arousal).

Through the professional learning community, highly skilled and expert Islamic education teachers will conduct sharing sessions related to their knowledge, skills, experience, and pedagogical practices. This activity is a source of vicarious experience and verbal persuasion that can increase the self-efficacy of Islamic education teachers. Especially if the partnership is conducted by a committee member who is experienced and has outstanding performance. Islamic education teachers can also assess their teaching abilities by combining the four sources of self-efficacy derived from professional learning community activities. Teachers not only have positive mastery experiences using teaching and learning strategies, but they also receive feedback related to their performance through committee peer interactions and teaching observation models. This source of self-efficacy gives teachers a positive sense of teaching and encourages teachers to try more challenging teaching strategies (Bruce & Ross, 2008).

The findings of this study are expected to have implications for school administrators to consider factors such as trust and professional learning communities to improve teachers' self-efficacy. The leadership aspect in schools is a major catalyst in improving the performance of schools, teachers, and students. Administrators play an important role as agents of change to transform the school climate for the better especially in improving the quality of teaching of teachers. Thus, school administrators should strive to create an environment of mutual trust in the school community by strengthening parent-teacher associations and parental facilities in schools so that close cooperation can be forged to create an effective learning ecosystem. In addition, school administrators should also continue to support the implementation of professional learning communities in schools through the provision of physical facilities, allocation of time to implement professional learning communities, involvement of external experts, and periodic monitoring. Creating a conducive and positive school environment can help teachers to become more effective.

This study also contribute to new knowledge related to the relationship between trust and professional learning communities on teachers' self-efficacy at multilevels. Although trust and professional learning communities have been identified as multilevel (Hoy & Tschannen-Moran, 1999; Lomos et al., 2011; Zheng et al., 2020), studies on multilevel trust and professional learning communities are rather limited (Lomos et al., 2011) particularly in Asia including Malaysia.

Thus, the findings of this study contribute to the development of data analysis methods using a multilevel approach as proposed by Liu and Hallinger (2018) and Zheng et al. (2020). The multilevel approach is the most accurate test used to answer the study's research questions because of the multilevel nature of the data and the clustered study samples involved (Maele & Houtte, 2014). However, slight bias is likely to occur since the data of this study were collected from the same respondents or a single source only, including the use of self-assessment. Thus, longitudinal, and qualitative studies are encouraged to obtain a clearer picture related to the study variables.

## **CONCLUSION**

In conclusion, the findings of this study proved the importance of professional learning community as a resource that can improve the self-efficacy of Islamic education teachers in Malaysia. Although this study only involved Islamic education teachers as respondents, the findings of this study can benefit all teachers in general. High self-efficacy can provide a sense of confidence, positivity, high commitment, and steadfastness in the face of educational challenges. Therefore, it is important for teachers to continue to be strong learners in order to improve their knowledge and skills through the sharing of best practices and collaboration in the professional learning community. In addition, to encourage the participation of teachers in the professional learning community, school administrators play an important role in optimizing the school environment by setting up a professional learning community by considering the factor that can sustain it which is trust. This is because to launch a professional learning community in schools is not easy as it comes with challenges that need to be faced. The existence of a trusting environment in the school community makes teachers more open to share ideas, collaborate, observe the learning of others, give feedback, share best teaching practices with colleagues, reduce conflict in the school community, and help create a positive school climate.

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## REFERENCES

- Abdullah, N. H. H., & Darusalam, G. (2018). Kesiediaan guru melaksanakan kemahiran berfikir aras tinggi dalam pengajaran. *Jurnal Kurikulum & Pengajaran Asia Pasifik*, 6(3), 22–31. <https://ejournal.um.edu.my/index.php/JUKU/article/view/14033>
- Abu Bakar, A. A., & Hamzah, M. I. (2019). Professional learning community practices in improving self efficacy of elementary school Islamic education teachers at Melaka Tengah, Melaka. *International Journal of Education and Pedagogy*, 1(1), 37–49. <https://myjms.mohe.gov.my/index.php/ijeap/article/view/6724>
- Abu Bakar, D. M. A., & Jamian, A. R. (2016). Pelaksanaan komuniti pembelajaran profesional untuk peningkatan kemahiran guru Bahasa Melayu mengajar penulisan karangan. *Jurnal Kurikulum & Pengajaran Asia Pasifik*, 4(3), 1–10. <https://juku.um.edu.my/index.php/JUKU/article/view/8200>
- Adams, C. M. (2003). *The effects of school structure and trust on collective teacher efficacy*. (Unpublished doctoral dissertation). Oklahoma State University, United States.
- Admiraal, W., Schenke, W., De Jong, L., Emmelot, Y., & Sligte, H. (2019). Schools as professional learning communities: What can schools do to support professional development of their teachers? *Professional Development in Education*, 47(4), 684–698. <https://doi.org/10.1080/19415257.2019.1665573>
- Babbie, E. (2016). *The practice of social research* (14th ed.). Cengage Learning.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory a behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1007/978-3-319-75361-4>
- Bandura, A. (1986). *Social foundations of thoughts and action: A social cognitive theory*. Prentice-Hall.
- Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. *Journal of Applied Sport Psychology*, 2(2), 128–163. <https://doi.org/10.1080/10413209008406426>
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117–148. <https://doi.org/10.1207/s15326985ep2802>
- Bandura, A. (1995). *Self-efficacy in changing societies*. Cambridge University Press. <https://doi.org/10.1109/EVER.2017.7935960>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman and Co.

- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26. <https://doi.org/10.1146/annurev.psych.52.1.1>
- Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology: An International Review*, 51(2), 269–290. <https://doi.org/10.1111/1464-0597.00092>
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Bellibaş, M. Ş., & Gümüş, S. (2021). The effect of learning-centred leadership and teacher trust on teacher professional learning: Evidence from a centralised education system. *Professional Development in Education*, 00(00), 1–13. <https://doi.org/10.1080/19415257.2021.1879234>
- Best, J. W. (1977). *Research in education* (3rd ed.). Prentice Hall.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 349–381). Jossey-Bass.
- 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*, 31(2), 346–370. <https://www.jstor.org/stable/20466705>
- Bryk, A., Camburn, E., & Louis, K. S. (1999). Professional community in Chicago elementary schools: Facilitating factors and organizational consequences. *Educational Administration Quarterly*, 35(December), 751–781. <https://doi.org/10.1177/0013161x99355004>
- Bryk, A. S., & Schneider, B. (2003). Trust in schools: A core resource for school reform. *Educational Leadership*, 60(6), 40–44. <https://www.ascd.org/el/articles/trust-in-schools-a-core-resource-for-school-reform>
- 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(May), 1–15. <https://doi.org/10.1016/j.tsc.2021.100854>
- Chen, G., Mathieu, J. E., & Bliese, P. D. (2004). A framework for conducting multi-level construct validation. *Research in Multi-Level Issues*, 3, 273–303. [https://doi.org/10.1016/S1475-9144\(04\)03013-9](https://doi.org/10.1016/S1475-9144(04)03013-9)

- Chen, P., Lee, C. Di, Lin, H., & Zhang, C. X. (2016). Factors that develop effective professional learning communities in Taiwan. *Asia Pacific Journal of Education*, 36(2), 248–265. <https://doi.org/10.1080/02188791.2016.1148853>
- Choong, Y. O., Ng, L. P., Ai Na, S., & 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 and Leadership*, 1–21. <https://doi.org/10.1177/1741143220968170>
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge Taylor & Francis Group.
- Cranston, J. (2011). Relational trust: The glue that binds a professional learning community. *Alberta Journal of Educational Research*, 57(1), 59–72. <https://doi.org/10.11575/ajer.v57i1.55455>
- Creswell, J. W. (2012). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (4th ed.). Pearson Education.
- DeVellis, R. F. (2017). *Scale development theory and applications* (4th ed.). Sage Publications, Inc.
- Dufour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. National Education Service.
- Fitria, H. (2018). The influence of organizational culture and trust through the teacher performance in the private secondary school in Palembang. *International Journal of Scientific and Technology Research*, 7(7), 82–86. <https://www.ijstr.org/final-print/july2018/The-Influence-Of-Organizational-Culture-And-Trust-Through-The-Teacher-Performance-In-The-Private-Secondary-School-In-Palembang.pdf>
- Forsyth, P. B., Adams, C. M., & Hoy, W. K. (2011). *Collective trust. Why schools can't improve without it*. Teacher College Press. <https://doi.org/10.13140/RG.2.1.2673.1684>
- Gholami, M., Moghadam, P. K., Mohammadipoor, F., Tarahi, M. J., Sak, M., Toulabi, T., & Pour, A. H. H. (2016). Comparing the effects of problem-based learning and the traditional lecture method on critical thinking skills and metacognitive



- awareness in nursing students in a critical care nursing course. *Nurse Education Today*, 45, 16–21. <https://doi.org/10.1016/j.nedt.2016.06.007>
- Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569–582. <https://doi.org/10.1037/0022-0663.76.4.569>
- Goddard, R. D., & Goddard, Y. L. (2001). A multilevel analysis of the relationship between teacher and collective efficacy in urban schools. *Teaching and Teacher Education*, 17(7), 807–818. [https://doi.org/10.1016/S0742-051X\(01\)00032-4](https://doi.org/10.1016/S0742-051X(01)00032-4)
- Goddard, R. D., Tschannen-Moran, M., & Hoy, W. K. (2001). A multilevel examination of the distribution and effects of teacher trust in students and parents in urban elementary schools. *Elementary School Journal*, 102(1), 3–17. <https://doi.org/10.1086/499690>
- Gray, J. (2016). Investigating the role of collective trust, collective efficacy, and enabling school structures on overall school effectiveness. *Education Leadership Review*, 17(1), 114–128. <https://files.eric.ed.gov/fulltext/EJ1105528.pdf>
- Gray, J. A., & Summers, R. (2015). International professional learning communities: The role of enabling school structures, trust, and collective efficacy. *International Education Journal: Comparative Perspectives*, 14(3), 61–75. <https://openjournals.library.usyd.edu.au/index.php/IEJ/index>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hairon, S., Goh, J. W. P., Chua, C. S. K., & Wang, L. Y. (2015). A research agenda for professional learning communities: Moving forward. *Professional Development in Education*, 43(1), 72–86. <https://doi.org/10.1080/19415257.2015.1055861>
- Hassan, R., Ahmad, J., & Boon, Y. (2019). Instructional leadership practice and professional learning community in the southern zone of Malaysia. *Universal Journal of Educational Research*, 7(12A), 42–50. <https://doi.org/10.13189/ujer.2019.071906>
- Hord, S. M. (1997). Professional learning communities: Communities of continuous inquiry and improvement. *Leadership*, 40(1), 58–59. <https://doi.org/10.1177/1365480210376487>
- Hoy, W. K., & Tschannen-Moran, M. (1999). Five faces of trust: An empirical confirmation in urban elementary schools. *Journal of School Leadership*, 9(3), 184–208. <https://doi.org/10.1177/105268469900900301>

- Hoy, W. K., & Tschannen-Moran, M. (2003). The conceptualization and measurement of faculty trust in schools: The omnibus T-scale. In W. K. Hoy & C. G. Miskel (Eds.), *Studies in Leading and Organizing Schools* (pp. 181–208). Age Publishing.
- Ibrahim, S., & Abdullah, Z. (2014). Sokongan pengetua dalam amalan komuniti pembelajaran profesional sebuah sekolah di Johor, Malaysia. *Jurnal Peradaban*, 7, 1–39. <https://peradaban.um.edu.my/index.php/PERADABAN/article/view/4806>
- Ismail, N. A., & Wahid, N. A. (2018). Sorotan al-Quran terhadap efikasi sendiri. *Prosiding Seminar Antarabangsa Al-Quran Dalam Masyarakat Kontemporari 2018, September*, 271–276. <http://www.fki.unisza.edu.my>
- Jaafar, N. (2014). Self efficacy: A comparison between Islam and west. *Global Jurnal Al Thaqafah*, 4(2), 89–98. <http://www.gjat.my>
- Jima'ain, M. T. A. @, & Mohamad, A. M. (2020). Sikap guru Pendidikan Islam terhadap penerapan kemahiran berfikir aras tinggi (KBAT) dalam pengajaran dan pemudahcaraan (PdPc). *E-Journal of Islamic Thought and Understanding*, 2, 71–82. <https://myjms.mohe.gov.my/index.php/E-Jitu/article/view/12793>
- Karacabey, M. F., Bellibaş, M. Ş., & Adams, D. (2020). Principal leadership and teacher professional learning in Turkish schools: Examining the mediating effects of collective teacher efficacy and teacher trust. *Educational Studies*, 00(00), 1–20. <https://doi.org/10.1080/03055698.2020.1749835>
- Kothari, C. R. (2004). *Research methodology: Methods and technique* (2nd ed.). New Age International Publishers.
- Kreft, G. I. (1996). *Are multilevel techniques necessary? An overview including simulation studies*. Unpublished manuscript. California State University, Los Angeles.
- Lee, J. C. K., Wan, Z. H., Hui, S. K. F., & Ko, P. Y. (2019). More student trust, more self-regulation strategy? Exploring the effects of self-regulatory climate on self-regulated learning. *Journal of Educational Research*, 1–11. <https://doi.org/10.1080/00220671.2018.1553840>
- Lee, J. C. K., Zhang, Z., & Yin, H. (2011). A multilevel analysis of the impact of a professional learning community, faculty trust in colleagues and collective efficacy on teacher commitment to students. *Teaching and Teacher Education*, 27(5), 820–830. <https://doi.org/10.1016/j.tate.2011.01.006>



- Maele, D. Van, & Houtte, M. Van. (2014). Teacher trust in students and the organizational school context: The role of student culture and teachability perceptions. In D. Van Maele, P. B. Forsyth, & M. Van Houtte (Eds.), *Trust and School Life: The Role of Trust for Learning, Teaching, Leading, and Bridging* (pp. 171–188). Springer.
- Mathieu, J. E., & Taylor, S. R. (2007). A framework of testing meso-mediational relationships in organizational behavior. *Journal of Organizational Behavior*, 28, 141–172. <https://doi.org/10.1002/job>
- Melville, W., & Hardy, I. (2018). Teacher learning, accountability and policy enactment in Ontario: The centrality of trust. *Educational Research for Policy and Practice*, 19(1). <https://doi.org/10.1007/s10671-018-09244-z>
- Ministry of Education Malaysia. (2019). *Annual report 2019: Malaysia education blueprint 2013-2025*. <https://www.moe.gov.my>
- Mohd Yaakob, M. F., Ramle, M. R., & Yunus, J. (2016). Konsep kolaborasi dalam komuniti pembelajaran profesional: Satu tinjauan dari perspektif Islam. *Malaysian Journal of Society & Space*, 12(10), 1–9. <http://journalarticle.ukm.my/10621/>
- Mustafa, M. Z., Mohd Salleh, M. S., Ahad, R., & Abdul Razzaq, A. R. (2018). Kemahiran berfikir aras tinggi (KBAT) dalam kalangan guru Pendidikan Islam sekolah menengah kebangsaan daerah Batu Pahat, Johor. *Human Sustainability Procedia*, 21, 18–28. <https://publisher.uthm.edu.my/periodicals/index.php/hsp/article/view/1214>
- Okpogba, D. (2001). *Organizational structure, collegial trust, and college faculty teaching efficacy: A case study* (Unpublished doctoral dissertation). Oklahoma State University, United States. <https://doi.org/10.1021/ja003690f>
- Othman, M. S., Latif, M. A. A., & Husin, A. Z. (2019). Cabaran dan halangan pelaksanaan pengajaran dan pembelajaran Pendidikan Islam yang mengintegrasikan kemahiran berfikir aras tinggi. *Jurnal Penyelidikan Dedikasi*, 17, 150–168. <https://myjms.mohe.gov.my/index.php/jd/article/view/12410>
- Paxton, C. L. C., Leis, M., & Rimm-Kaufman, S. E. (2014). Collective efficacy and adult community: Teacher and principal perceptions after two years of implementing “Leading Together” in schools. *Society for Research on Educational Effectiveness*. <https://eric.ed.gov/?id=ED562716>
- Peugh, J. L. (2010). A practical guide to multilevel modeling. *Journal of School Psychology*, 48, 85–112. <https://doi.org/10.1016/j.jsp.2009.09.002>

- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effect in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717–731. <https://doi.org/10.1002/jcp.28952>
- Preacher, K. J., & Selig, J. P. (2010). *Monte Carlo method for assessing multilevel mediation: An interactive tool for creating confidence intervals for indirect effects in 1-1-1 multilevel models [Computer software]*. <http://quantpsy.org/>
- Putwain, D. W., & von der Embse, N. P. (2018). Teacher self-efficacy moderates the relations between imposed pressure from imposed curriculum changes and teacher stress. *Educational Psychology*, 1–14. <https://doi.org/10.1080/01443410.2018.1500681>
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Sage Publication, Inc.
- Raudenbush, S. W., Rowan, B., & Cheong, Y. F. (1992). Contextual effects on the self-perceived efficacy of high school teachers. *Sociology of Education*, 65(2), 150–167. <https://doi.org/10.2307/2112680>
- Rerah, N. F., & Mohamed, M. F. (2020). The level of knowledge, skills and attitudes of Islamic education teachers towards the readiness of teaching and learning online mode. *Malaysian Journal of Social Sciences and Humanities*, 6(10), 82–89. <https://doi.org/10.47405/mjssh.v6i10.1076>
- Ross, J. A. (1994). The impact of an inservice to promote cooperative learning on the stability of teacher efficacy. *Teaching and Teacher Education*, 10(4), 381–394. [https://doi.org/10.1016/0742-051X\(94\)90020-5](https://doi.org/10.1016/0742-051X(94)90020-5)
- Ross, J. A., Cousins, J. B., & Gadalla, T. (1996). Within-teacher predictors of teacher efficacy. *Teaching & Teacher Education*, 12(4), 385–400. [https://doi.org/https://doi.org/10.1016/0742-051X\(95\)00046-M](https://doi.org/https://doi.org/10.1016/0742-051X(95)00046-M)
- Louis, K. S., & Lee, M. (2016). Teachers' capacity for organizational learning: The effects of school culture and context. *School Effectiveness and School Improvement*, 27(4), 534–556. <https://doi.org/10.1080/09243453.2016.1189437>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). UK: John Wiley & Sons Ltd.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422–445. <https://doi.org/10.1037/1082-989X.7.4.422>

- Snijders, T. A. B., & Bosker, R. J. (2012). *Multilevel analysis: An introduction to basic and advanced multilevel modeling* (2nd ed.). Sage Publications.
- Soh, M. A. C., Ajmain@Jima'ain, M. T., Hehsan, A., & Mohamed, A. M. (2020). Proficiency of higher order thinking skills (HOTS) among Islamic education teachers in Hulu Langat District. *Jurnal Dunia Pendidikan*, 2(3), 135–149. <https://myjms.mohe.gov.my/index.php/jdpd/article/view/11086>
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change*, 7, 221–258. <https://doi.org/10.1007/s10833-006-0001-8>
- Sukserm, T., & Takahashi, Y. (2012). Self-efficacy as a mediator of the relationships between learning and ethical behavior from human resource development in corporate social responsibility activity. *Asia-Pacific Journal of Business Administration*, 4(1), 8–22. <https://doi.org/10.1108/17574321211207944>
- Swackhamer, L. E., Koellner, K., Basile, C., & Kimbrough, D. (2009). Increasing the self-efficacy of inservice teachers through content knowledge. *Teacher Education Quarterly*, 36(2), 63–78. <http://www.jstor.org/stable/23479252>
- Tschannen-Moran, M. (2004). What's trust got to do with it? The role of faculty and principal trust in fostering student achievement. In D. C. Thompson & F. E. Crampton (Eds.), *UCEA Conference Proceedings for Convention 2004*. <https://www.researchgate.net/publication/267851381>
- Tschannen-Moran, M., & Barr, M. (2004). Fostering student learning: The relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools*, 3(3), 189–209. <https://doi.org/10.1080/15700760490503706>
- 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](https://doi.org/10.1016/S0742-051X(01)00036-1)
- Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*, 23, 944–956. <https://doi.org/10.1016/j.tate.2006.05.003>
- Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy : Its meaning and measure. *Review of Educational Research*, 68(2), 202–248. <https://doi.org/https://doi.org/10.3102/00346543068002202>

- Tschannen-Moran, M., & Hoy, W. (1998). Trust in schools: A conceptual and empirical analysis. *Journal of Educational Administration*, 36(4), 334–352. <https://doi.org/10.1108/09578239810211518>
- Valckx, J., Vanderlinde, R., & Devos, G. (2020). Departmental PLCs in secondary schools: The importance of transformational leadership, teacher autonomy, and teachers' self-efficacy. *Educational Studies*, 46(3), 282–301. <https://doi.org/10.1080/03055698.2019.1584851>
- Voelkel, R. H., & Chrispeels, J. H. (2017). Understanding the link between professional learning communities and teacher collective efficacy. *School Effectiveness and School Improvement*, 28(4), 505–526. <https://doi.org/10.1080/09243453.2017.1299015>
- Wahlstrom, K. L., & Louis, K. S. (2008). How teachers experience principal leadership: The roles of professional community, trust, efficacy, and shared responsibility. *Educational Administration Quarterly*, 44(4), 458–495. <https://doi.org/10.1177/0013161X08321502>
- Watson, G. (2006). Technology professional development: Long-term effects on teacher self-efficacy. *Journal of Technology and Teacher Education*, 14(1), 151–166. <https://mds.marshall.edu/cgi/viewcontent.cgi?>
- Woolfolk, A. E., Rosoff, B., & Hoy, W. K. (1990). Teachers' sense of efficacy and their belief about managing students. *Teaching and Teacher Education*, 6(2), 137–148. <https://doi.org/10.1093/om/0/9781561592630.013.3000000057>
- Yin, H. B., Lee, J. C. K., Jin, Y. Le, & Zhang, Z. H. (2013). The effect of trust on teacher empowerment: The mediation of teacher efficacy. *Educational Studies*, 39(1), 13–28. <https://doi.org/10.1080/03055698.2012.666339>
- 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. <https://doi.org/10.1016/j.tate.2019.03.019>
- 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>
- Zee, M., & Koomen, H. M. Y. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being : A synthesis of 40 years of research.

- Review of Educational Research*, 1–35. <https://doi.org/10.3102/0034654315626801>
- 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 and 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>
- Zheng, X., Yin, H., Liu, Y., & Ke, Z. (2016). Effects of leadership practices on professional learning communities: The mediating role of trust in colleagues. *Asia Pacific Education Review*, 17(3), 521–532. <https://doi.org/10.1007/s12564-016-9438-5>