

Understanding The Relationship Between Emotional Competence and Self-Efficacy with Preschool Teacher Commitment: An Analysis of PLS-Predict & IPMA (Importance-Performance Matrix Analysis)

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ABSTRACT

This study aims to identify the relationship between emotional competence and self-efficacy with the commitment of preschool teachers in the state of Selangor in addition to testing emotional competence and self-efficacy as predictor factors to teacher commitment. This study is based on the Emotional Competence Theory developed by Goleman (2001), the Self-efficacy Model by Tschannen-Moran & Hoy (2001) and Teacher Commitment Model by Thien et al. (2014). This is a survey study involved 428 samples in Selangor through cluster and systematic random sampling method to answer a set of questionnaire questions. The instrument has been validated by six experts and a pilot study has been conducted to identify the reliability of the instrument. The collected data were analyzed quantitatively using Smart-PLS 3.0 software with PLS-*predict* and IPMA analysis for $Q^2_{predict}$ and effect size factor analysis. The findings of structural model analysis show that the relationship between emotional competence, self-efficacy and commitment is positively significant. PLS findings indicate commitment is a predictor construct that has predictive power in the evaluation of the internal model of this study. Findings of IPMA analysis show that the construct of emotional competence and self-efficacy are two important factors for teacher commitment.

Keywords : emotional competence, teacher self-efficacy, teacher commitment, *pls-predict*

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Introduction

In the context of early childhood education, preschool teachers are seen as important and challenging educational leaders because they act as key educators in motivating children to achieve classroom learning. This task becomes more challenging due to the addition of behavioral problems in kindergarten children (Agbaria, 2021). Research on teacher emotions shows that teachers in Asian and other national contexts experience more negative emotions than positive emotions and that teachers' inadequate ability to regulate emotions can lead to fatigue, job dissatisfaction, and inappropriate teaching behaviors (Chen, 2019; Yin, 2015). Recent media reports of child abuse by preschool teachers in Malaysia and other parts of the world have raised widespread public concern about the emotions of preschool teachers.

Emotional competence is an important skill that is able to influence individuals in controlling their own emotions and the emotions of others in an organization (Goleman, 1998; Meyer et al., 1998; Yahya Don et al., 2015; Yin, 2015; Zhang et al., 2020). The process of teachers communicating and completing the daily routines of preschool children requires a high level of emotional competence (Sutton & Wheatley, 2003). Thus, teachers who are able to master emotional competence can empower and improve the accessibility of preschool children because of their effectiveness in children's learning processes and while interacting with them (Anderson, 2004; Ramana, 2013; Yahya Don et al., 2015).

Effective teachers are associated with their level of self-efficacy (Agbaria, 2021; Guo et al., 2010; Guo et al., 2011; Shafinaz, 2017; Tschannen-Moran et al., 1998). According to Bandura (1997), self-efficacy is formed as a result of an individual's cognitive process in an effort to build beliefs about an individual's abilities in an effort to perform a task at a certain level of competence. A better understanding of teacher self-efficacy is essential to ensure the quality and effectiveness of preschool teaching (Infurna et al., 2018). By recognizing teachers' self-efficacy, this allows efforts to improve teachers' self-efficacy to be given attention, especially for preschool teachers in the implementation of their commitments (Guo et al., 2010; Guo et al., 2011).

Highly committed teachers are considered an asset in any school. Thus, commitment has become an important core value to be developed and nurtured among school teachers

(Thien et al., 2014). Researchers' interest in exploring teacher commitment is growing because of strong psychological relationships with school, student, and area subjects (Cheng & Gan, 2020). In addition, teachers who work hard in an effort to promote high quality teaching can optimize student outcomes (Thien et al., 2014). The seriousness of the efforts and involvement of teachers in promoting quality teaching reflected by their commitment to work, school, students, and profession is important in educational outcomes (Cheng & Gan, 2020; Thien et al., 2014; Tsui & Cheng, 1999).

This study aims to identify the relationship between emotional competence and self-efficacy with the commitment of preschool teachers in the state of Selangor in addition to testing emotional competence and self-efficacy as predictor factors to teacher commitment. Although many studies have been conducted on emotional competence, self-efficacy and teacher commitment in education generally but most of these studies do not focus on early childhood education.

The objectives of this study are:

1. To study the significant relationship of teachers' emotional competence with the commitment of preschool teachers in the state of Selangor.
2. To study the significant relationship of teachers' emotional competence with preschool self-efficacy in the state of Selangor.
3. To study the significant relationship of teachers' self-efficacy with the commitment of preschool teachers in the state of Selangor.

Literature Review

Various studies have been conducted on the emotional competence of preschool teachers (Agbaria, 2021; Zhang et al., 2020) and school teachers (Ramana, 2013; Valente & Lourenço, 2020; Yin, 2015) with teacher commitment and classroom conflict management. Zhang et al. (2020) study, suggested three emotional rules as preschool teachers, which are proficiency in emotional control, active use of emotions and continuity to smiling while performing their duties. Preschool teachers must be capable of controlling their emotions so as not to disrupt their teaching and interpersonal interactions. They regard such self-control

as a fundamental moral for preschool teachers. Emotional control rules also apply to preschool teachers interacting with coworkers. This rule becomes important for informants as collaborative teaching with other peers in a class has become routine in their professional practice. In addition, workshops on learning the behavior of smiling were also conducted for preschool teachers in Beijing, who were trained to smile “appropriately and in a professional manner” in order to create an atmosphere of harmony in the school (Zhang et al., 2020). In this workshop which conducted in Beijing, teachers needed to be adept at disguising, restraining, persuading, and releasing emotions well. Smiling behavior among preschool teacher is important because preschool is a critical period for preschool children’s emotional development during social interactions (Zhang et al., 2020). In a harmonious classroom with a smiling teachers, children are able to learn in a happy environment without stress. Therefore, smiling behavior among preschool teachers is important.

One of the findings of the study showed a positive correlation between the level of emotional intelligence and job satisfaction among teachers (Yin, 2015). In the same context, Ramana (2013) found that teachers with high levels of emotional intelligence are more likely to be caring about their students, become more familiar with their needs, and to better respond accordingly. The attention given by teachers to students helps reduce unacceptable student behaviors and even helps them work harder in achieving educational goals and higher academic performance (Agbaria, 2021). The study of Valente and Lourenço, (2020) showed that teachers with more emotional competence are able to use management strategies that benefit the teaching and learning process, managing conflict in the teacher-student relationship in a constructive way when conflict occurs in the classroom. This is because their self-efficacy convinces their actions. Emotionally intelligent teachers represent an important context for the development of positive classroom relationships. There are many studies on the benefits of teachers having emotional competence in the classroom (Chan, 2006; Brackett et al., 2010; Extremera Pacheco et al., 2016; Schoeps et al., 2019).

According to Tschannen-Moran et al. (1998), the concept of teacher self-efficacy refers to teacher’s confidence in organizing teaching task by carrying out an appropriate action in a specific context perfectly. Teachers who have a high level of self-efficacy are concerned

with their teaching, and able to motivate and enhance students' cognitive development (Bandura, 1997) and preschool teaching (Infurna et al., 2018). In a study of Darling-Hammond (2007), Infurna et al. (2018) and Ng et al. (2010) found that teachers with high self-efficacy are more motivated and committed in teaching. In addition, they are also optimistic when faced with various new obstacles (Infurna et al., 2018; Milner & Hoy, 2003), able to affect character and identity (Dibapile, 2012; Richardson, 2011), have high job satisfaction (Skaalvik & Skaalvik, 2014) as well as highly competitive and resilient (Milner & Hoy, 2003).

In the study of Barni et al. (2018), high self-efficacy motivates teachers to teach despite external pressures. Teachers with self-efficacy belief in their ability to deal effectively with tasks, responsibilities, and challenges related to their professional activities, play an important role in influencing important academic outcomes namely student achievement and motivation as well as well-being in the work environment (Barni et al., 2019). The importance of the concept of self-efficacy cannot be denied by any party, especially in the field of education among teachers or students, therefore, the understanding of the causes that influence teachers' self-efficacy and its effects must be realized by stakeholders in the field of education for teachers and student excellence are guaranteed in order to achieve the quality of national education.

Teacher commitment is widely associated with job satisfaction. In the study of Mohd Khairuddin Abdullah (2017), showed that teachers who have affective commitment have a high level of job satisfaction. Mohd Khairuddin Abdullah (2017) also showed that the teacher respondents felt attached to the school in which they worked. In the school where the teacher works, the teacher is a professional who deals with students directly. Therefore, teachers should be highly committed to the school so that they are able to perform their duties as educators effectively and efficiently. The study of Musliza Mat Jusoh et al. (2020) on excellent teachers in Kelantan showed that the average level of teacher commitment ($M = 4.36$, $SD = .49$). Commitment to students ($M = 4.57$, $SD = .49$) and commitment to teaching ($M = 4.47$, $SD = .52$) showed the highest scores. On the other hand, commitment to school was the lowest, namely, $M = 4.09$, $SD = .78$ and commitment to the profession reached $M = 4.31$, $SD = .44$. Directly, this shows that teachers are committed in their work because they feel the job satisfaction of the school.

In the study of Cheng & Gan (2020), in the full structural equation modeling analysis of the study, they found that there was a significant positive relationship between emotional psychology with preschool teacher commitment. This is consistent with previous research results showing that emotional psychology serves as a psychological resource that can positively impact commitment, attitudes toward work, and performance in the workplace (Lee et al., 2017; Yalcin, 2016). Teachers with high levels of commitment, self-efficacy, resilience, and optimism are able to work harder to overcome difficulties in teaching approaches (e.g. teaching methods, classroom management tactics) and more confident to complete their tasks while dealing with stress (e.g. parental demands) and other challenges (Lee et al., 2017; Yalcin, 2016) compared to low-level teachers.

The findings of this study have highlighted the importance of emotional competence among teachers in the interest of effective classroom learning, disciplined student behavior, more caring teacher-student relationships and outstanding academic achievement. Besides that, this study also highlighted the importance of teacher commitment among teachers in impacting job satisfaction impacting classroom learning, and more caring relationships and better academic achievement. Although many studies have been conducted on emotional competence, self-efficacy and teacher commitment in Malaysia but most of these studies do not focus on early childhood education. Therefore, there is a gap of studies that need to be done to fill this gap.

Methodology

This study is a quantitative study with a survey approach to examine the relationship between emotional competence and self-efficacy with teacher commitment as a dependent variable in preschools in the state of Selangor. PLS-*predict* and IPMA analyses were used to look at the effect of the independent variable as a predictor factor on the dependent variable.

A priori model of the study is a proposed model formed from exogenous and endogenous variables. Exogenous variables impact endogenous variables; endogenous variables are influenced by other variables and also affect other variables in the model study (Kline,

2015).

In this study, the exogenous variable is emotional competence consisting of self-awareness, self-management, social awareness and social relationship management, while self-efficacy is the endogenous variable consisting of teaching strategies, classroom management and student engagement. Exogenous variables (emotional competence) affect endogenous variables (self-efficacy & commitment); endogenous variables (self-efficacy) are influenced by other variables (emotional competence) and also affect other variables (commitment) in the a priori model of this study (figure 1).

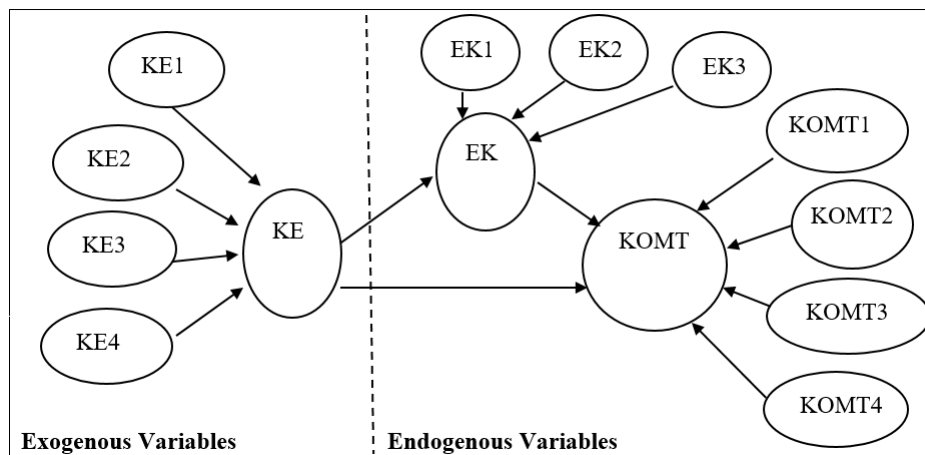


Figure 1. Model A Priori Study

*Note: KE1 = Self-awareness, KE2 = Self-management, KE3 = Social Awareness, KE4 = Social Relationship Management, KE = Emotional Competence; EK1 = Teaching Strategies, EK2 = Classroom Management, EK3 = Student Involvement, EK = Self-efficacy; KOMT1 = Student, KOMT2 = Teaching, KOMT3 = School, KOMT4 = Profession, KOMET = Commitment.

This study was conducted in the state of Selangor. Teachers who teach in the state of Selangor are the same as other states under the Malaysian Ministry of Education, they need to be trained at universities in the field of early childhood education. Cluster sampling and systematic random sampling were conducted among preschool teachers in the state of Selangor involving 10 districts.

Research Instrument

In this study, the researcher used a questionnaire as measurement instrument. This form of instrument is considered the most appropriate to obtain information related to emotional competence, teacher self-efficacy and commitment of preschool teachers because the questionnaire form can help researchers collect data more accurately in this study. In addition, the questionnaire instrument is believed to be able to collect information accurately and effectively, and even the respondents can give good feedback on the subjects tested. Therefore, a good questionnaire should be concise and clear in order to attract the attention of the sample to respond sincerely and honestly (Chua, 2016).

The questionnaire of this study consists of four parts namely (a) the demographics of the respondents; (b) emotional competence adapted from *ECI-V2* from Boyatzis & Sala (2004); (c) self-efficacy adapted from the “*TSES*” instrument Tschannen-Moran & Hoy (2001); and (d) teacher commitment adapted from the Teacher Commitment Scale instrument by Thien et al. (2014).

For part B (emotional competence), several changes were made to the items to achieve more robust measurements in the study. There were changes to 27 items out of a total of 72 items. Among the most notable recommendations was the use of the word “people” had been changed to “children” because this study focused on early childhood education. For example,

Item 19: “I always build good relationships with people from a variety of backgrounds” had changed to “I always build good relationships with children from a variety of backgrounds”.

Item 25: “I practice leadership through example” had changed to “I become an example to children”

For Part C, which is a teacher self-efficacy instrument, 18 items were changed out of a total of 24 items from the general context to the context of children's education to facilitate teachers' understanding when answering questions. This is because a focused statement give a clearer picture to the respondent when answering the question accurately. For example,

Item 3: “I can control disruptive behavior in class” had changed to “I was able to control disruptive children’s behavior in the classroom”.

Item 18: “I can use a variety of evaluation strategies” had changed to “I can use a variety of assessment strategies”.

In part D, which is the teacher commitment instrument, there were 2 items modified out of a total of 13 items. Among them, item 7 was changed because the statement focuses on general students and needed be changed in the context of children. In addition, item 8 also dropped the word ‘often’ so that the statement would be more robust. For example,

Item 7: “All students can succeed and this is my mission to ensure their success” had changed to “All children can succeed and this is my mission to ensure their success”.

A summary of the questionnaire is as follows.

Table 1. *Summary of Questionnaire Items*

Sections	Description of Item	Total Item
A	Teacher Demography	8
B1	Teacher Emotional Competence- Self-awareness	12
B2	Teacher Emotional Competence- Self-management	24
B3	Teacher Emotional Competence- Social-awareness	12
B4	Teacher Emotional Competence- Social-management	24
C1	Teacher Self-efficacy -Teaching strategy	8
C2	Teacher Self-efficacy -Classroom management	8
C3	Teacher Self-efficacy -Student involvement	8
D1	Commitment to student	3
D2	Commitment to teaching	3
D3	Commitment to school	3
D4	Commitment to profession	4
Total		117

A five-level Likert scale was used in the questionnaire for part B, namely None, Rarely, Sometimes, Often, and Always. For this study, the five-level Likert Scale was modified according to the emotional competence questions in the questionnaire as in table 2.

Table 2. *Likert Scale of Part B Questionnaire Response*

Score	Level
1	None
2	Rarely
3	Sometimes
4	Often
5	Always

(Source: Adapted from Mohd Najib Abdul Ghafar, 2003)

While sections C and D used a five-level Likert scale, namely Nothing, Very Little, Some Influence, Quite A Bit and A Great Deal. This scale was used to assess the perceptions of the study sample on the statements of self-efficacy and commitment given in the set of questionnaires. Table 3 shows the Likert scale used in section C and D.

Table 3. *Likert Scale of Part C and D Questionnaire Response*

Score	Level
1	Nothing
2	Very Little
3	Some Influence
4	Quite A Bit
5	A Great Deal

(Source: Adapted from Mohd Najib Abdul Ghafar, 2003)

Expert Validity & Pilot Studies

Validity of the content and language of the study instruments was performed using expert reference methods. To meet the validity of the questionnaire items, a total of six experts of PhD and Master's level in the field of early childhood education and research who are experienced and currently serving in public and private universities and preschools were appointed to evaluate the questionnaire instruments.

After corrections and expert recommendations, the researcher ran a pilot test and looked

for reliability values. Smart-PLS 3 software was used to analyze the data to identify item reliability values and construct validity. Measurement model analysis is a method of confirmatory factor analysis (CFA) to confirm the indicators that determine the variables to be measured and at the same time to ensure the reliability of the instrument. In this process, three things were taken into account are factor loading, composite reliability (CR), and mean of extracted variance (AVE) (Hassan et al., 2014). All items were still retained in the construct of the questionnaire because the results of the model measurement analysis after the effected items were removed showed that the CR and AVE values exceeded .5 (Hair et al., 2017). The loading values of other items in excess of .7 are suitable as measuring items of the study construct.

Data Collection

Following the Covid 19 pandemic, the Education Policy Planning and Research Division (EPRD) and the Selangor Education Department (JPN) advised researchers not to come face to face with samples due to MCO and CMCO implemented by the government after 18 March 2020. In addition, researchers have been advised by officials from JPN officer to use Google forms to obtain research data. Following that, the researcher modified the questionnaire into a Google form with a QR code, and then forwarded it to the JPN officer.

First Stage: With cluster sampling, preschool teachers in the state of Selangor are divided to 10 clusters according to districts. The purpose of this division is to help researchers obtain sufficient and accurate information to represent the population equally in the state of Selangor (Yuslina Mohamed et al., 2018; Zainal Mat Saat, 2018) so that sampling error and variance can be reduced and accurate expectations can be obtained (Mohd Majid Konting, 2005). Based on the calculation of the sample size of 95% confidence level, it is proposed that the total sample is 399 people, namely the sample from Petaling Perdana (63 teachers); Petaling Utama (21 teachers); Ulu Selangor (32 teachers); Ulu Langat (48 teachers); Kuala Selangor (41 teachers); Kuala Langat (45 teachers); Sabak Bernam (25 teachers); Sepang (25 teachers); Klang (53 teachers) and Gombak (43 teachers).

Second Stage: In the systematic random sampling, the Selangor JPN officers have assigned preschool teachers to be sampled based on groups. Out of a total of 1101

preschool teachers in the state of Selangor, teachers were given numbers 1 to 1101. Odd numbered teachers were categorized as A, while even numbered teachers were categorized as group B. In this study, group A teachers were selected as the study sample. In other words, a total of 555 teachers were selected as the study sample. Then, an official letter was issued by the Selangor JPN officer to all district education offices (10 districts) in Selangor to forward the QR code questionnaire to preschool teachers who have been identified as the study sample for the purpose of data collection.

Within 45 days of the study, out of 555 teachers selected as a sample, 428 teachers responded to the questionnaire in full with a response rate of 77.00%. Thus, the total sample size of this study was 428 teachers.

Data Analysis

In this study, all data collected were analyzed using SPSS Version 23.0 and Smart-PLS version 3.0 software. With the use of software packages SPSS (Statistical package for social sciences) and Smart-PLS, data analysis can be completed in an orderly, simple and systematic manner. SPSS analysis was used for data filtering before SEM-PLS 3.0 software analysis was conducted for structural model test to determine whether teacher emotional competence variables, teacher self-efficacy showed significant relationship with preschool teacher commitment or not with HOC formation. Researchers used PLS-SEM to test the relationship between independent variables and dependent variables. (Hair et al., 2014). PLS-SEM analysis can help researchers describe the relationship between each variable and to test each hypothesis easily and clearly (Hair et al., 2014).

In structural model testing, the HOC technique was used. Higher Order Construct (HOC) is an analytical technique to reduce model complexity especially for expressing and evaluating multidimensional concepts, expected levels of variables and criteria as well as for generalizing study concepts (Akter et al., 2017; Becker et al., 2012; Edwards, 2001; Wetzels et al., 2009). The method of building HOC by using latent variable from the value of latent variable in lower level measurement is the construction of upper level construct model based on lower level model is to summarize the measurement model and become more parsimony in the study model.

Findings

Demography

From the 428 respondents, 94.90% were female teachers and 5.10% were male teachers. The majority of respondents were aged from 31 to 40 years which is 49.50%, followed by the age group of 41 to 50 years with 33.60%. While the age group of 21 to 30 years and to 60 years recorded 8.20% and 8.60% respectively. In terms of academic qualifications, the majority of respondents have a master's degree which is 84.10%, followed by a master's 9.80% and diplomas recorded a minority number of 6.10%. In terms of teaching experience, a total of 64.00% respondents are preschool teachers with experience from 5 to 15 years, 34.10% with 11 to 15 years experience, followed by 29.90% with experience 5 to 10 years. Respondents with more than 21 years of experience are 4.40%, those with less than 5 years of experience are 14.50%, and those with 16 to 20 years of experience are 17.00%.

Structural Model Analysis

First of all, a structural model test was conducted to look at the relationship between the three study variables. The structural model is known as the inner model which shows the direct relationship of exogenous latent with endogenous latent. The structural model of this study is a high-level hierarchical model (HOC) by using variable latent values to test and predict the relationship of exogenous latent and endogenous latent. The test of this structural model is to answer the questions and test the research hypotheses.

The hypothesis test of this study showed the relationship of each exogenous latent with the endogenous latent. Further, the findings of the coefficient analysis and hypotheses are shown in Figure 2 and Table 2.

The findings of the study in Figure 2 as well as the results of the coefficient and hypothesis tests in Table 4 are the results of bootstrapping calculations with 5000 repeated samples in smart-PLS software. Hypothesis tests H^1 to H^3 explained the significance with $t > 1.645, p < .05$.

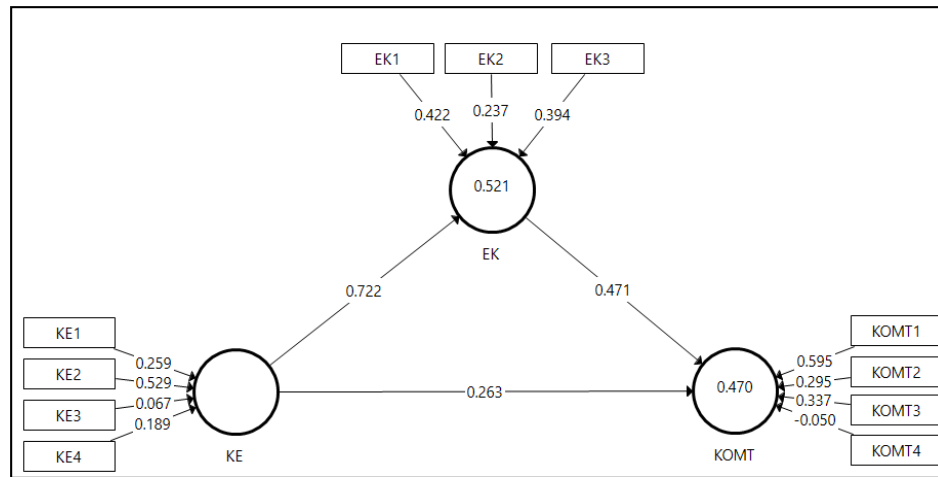


Figure 2. Structural Model of The Study

Table 4. Path Coefficient Analysis and Hypothesis Testing

	Relationship	Beta	SD	t Value	p Value	Results
H ¹	KE->KOMT	.263	.060	4.390	.000*	Significant
H ²	KE->EK	.722	.025	29.378	.000*	Significant
H ³	EK->KOMT	.471	.058	8.055	.000*	Significant

Note: Significant ($p < .05$) on the one tail test

The findings of the analysis of the study showed that there was a significant direct positive relationship between emotional competence ($\beta = .263$, $p < .05$) with teacher commitment. In addition, it was found that the relationship of emotional competence with self-efficacy also showed a significant direct positive relationship with value ($\beta = .722$, $p < .05$). For the relationship between self-efficacy and commitment, the value ($\beta = .471$, $p < .05$) also showed a significant positive relationship. Therefore, hypotheses H¹, H² and H³ are accepted. This finding shows that emotional competence and self-efficacy affect the commitment of preschool teachers. Based on the results of this study, efforts to improve emotional competence and self-efficacy are necessary to increase the commitment of preschool teachers.

Regression Analysis and Effect Size

Secondly, to see the influence of emotional competence on self-efficacy and commitment then regression analysis and effect size need to be conducted. First, a regression analysis should be made to look at the influence in each dependent variable as in table 5.

Table 5. *Multiple Regression Analysis*

	<i>R Square</i>	Stage
Self-efficacy	.521	High
Commitment	.470	High

Table 5 shows the multiple regression analysis (R^2). R^2 regression analysis, the value of R^2 is an assessment of the endogenous latent strength in the inner model (inner model). According to Cohen (1989), the value of R^2 is divided into three levels, namely $R^2=.02$ indicates weak, $R^2=.13$ indicates moderate level, and $R^2=.26$ indicates high level. According to Blaikie (2004), the value of multiple regression for social science studies is low and usually the guideline for determining the value of multiple regression is at a value of $R^2>.10$ (Falk & Miller, 1992).

Referring to Figure 2 and Table 5, the self-efficacy multiple regression test $R^2=.521$ (52.10%) was at a high level (Cohen, 1989). Based on these statistics, it was found that 52.1% of the influence on self-efficacy was due to teaching strategies (EF1), classroom management (EF2) and student engagement (EF3), while 47.90% of the influence on self-efficacy was due to other latent not studied in this model. The multiple regression test of commitment $R^2=.470$ (47.0%) was at a high level (Cohen, 1989). Based on this statistic, it was found that 47.00% influence on commitment was due to students (KOMT1), teaching (KOMT2), school (KOMT3) and profession (KOMT4), while 53.00% influence on commitment was due to other latent not studied in this model.

Next, an effect size analysis was conducted to look at the latent influence of the variable. The effect size (f^2) denotes the influence of exogenous latent on endogenous latency in the internal model. According to Cohen (1989), the effect size at a value of $f^2=.02$ indicates a weak effect, a value of $f^2=.15$ indicates a moderate effect and a value of $f^2=.35$ indicates a high effect.

Table 6. *Impact Size Analysis*

	R^2 Included	R^2 Excluded	f^2	Stage
Emotional Competence				
Self-efficacy	.521	.425	.200	moderate
Commitment	.470	.436	.063	weak

Table 6 describes the size of the effect of exogenous latent on endogenous latent. Based on the emotional competence construct, it was found that the effect size on efficacy was $f^2 = .200$ was moderate and the effect size on commitment $f^2 = .063$ was weak.

In summary, the impact size of exogenous constructs on endogenous constructs is modest on self-efficacy constructs and weak on commitment constructs. It can be said that emotional competence is more influenced by the double regression value of self-efficacy than the double regression value of commitment.

PLS-predict Analysis ($Q^2_{predict}$)

Thirdly, the PLS-predict analysis test was conducted to look at construct strength as a predictor factor through the value of $Q^2_{predict}$. Shmueli et al. (2016) developed *PLS-predict*, a sample-based procedure that can be performed by generating predictions at the item level or construct level for the evaluation of prediction models in PLS-SEM. In contrast to metric structural model evaluation standards such as R^2 and Q^2 , *PLS-predict* offers a method for evaluating the predictive strength of a model outside of the sample (i.e. the accuracy of the model when predicting outcome values from new cases).

Because *PLS-predict* has been implemented in PLS-SEM software standards, such as Smart-PLS (Ringle et al., 2015) and in *R* (<https://github.com/ISS-Analytics/pls-predict>), researchers can use the procedure with ease. Nevertheless, the *PLS-predict* test is still relatively new, so there are very few applications of *PLS-predict* (Felipe et al., 2017; Svensson et al., 2018). Comments on forums like <http://forum.smartpls.com/> indicate that researchers do not know how to interpret PLS-predict results, and recommendations for doing so are unclear. In line with this notion, Rasoolimanesh and Ali (2018, p. 243) also state that “research has not developed clear guidelines for using *PLS-predict*, which hinders

its application”. With the efforts of Shmueli et al. (2019), a guide to using PLS-*predict* was produced in an article entitled, “Predictive assessment model in PLS-SEM: guidelines for using PLS-*predict*”.

Based on this guide, PLS-*predict* analysis was conducted in Smart-PLS software. Since the structural model of the study is based on HOC using lantern variables, the findings of $Q^2_{predict}$ will refer to the PLS-*predict* summary. The results of the analysis are as follows Table 7:

Referring to Table 7, teacher commitment showed $Q^2_{predict} = .505$ in excess of zero (0) and self -efficacy showed $Q^2_{predict} = .321$. These findings suggest commitment is a predictive construct that has predictive power in the evaluation of internal models of this study (Hair et al., 2017; Sarstedt et al., 2014; Shmueli et al., 2019) for achieving high positive values. In comparison, the predictor power of commitment is higher than self -efficacy.

Table 7. PLS-Predict Analysis According to Endogenous Latent

	$Q^2_{predict}$	Results
Emotional Competence		
>Self-efficacy	0.321	Positive
>Commitment	0.505	Positive

Importance-Performance Matrix Analysis (IPMA)

Finally, the Importance-Performance Analysis (IPMA) test is a method to look at the overall effect of constructs in a structural model with the average value of the construct score. The purpose of this analysis is to identify constructs that have high importance but have relatively low performance so that special attention is given to improve the construct. Therefore, in this study model, this analysis is to identify the importance and performance of emotional competence constructs and self-efficacy on commitment. The results of the IPMA test are as shown in Table 8 and Figure 3, Figure 4 below.

Table 8. *IPMA Analysis of Teacher Commitment*

Constructs / Sub-construct	Importance	Performance
KE- Emotional Competence	.603	60.654
EK- Self- efficacy	.471	61.537
Sub-construct Emotional Competence		
KE1- Self-awareness	.133	64.926
KE2- Self- management	.271	59.047
KE3- Social-awareness	.034	62.548
KE4- Social- management	.097	58.615
Sub-construct Self-efficacy		
EK1- Teaching strategy	.169	60.516
EK2- Classroom management	.095	60.799
EK3- Students Involvement	.158	63.076



Figure 3. Importance-Performance of Teacher Commitment (Construct)

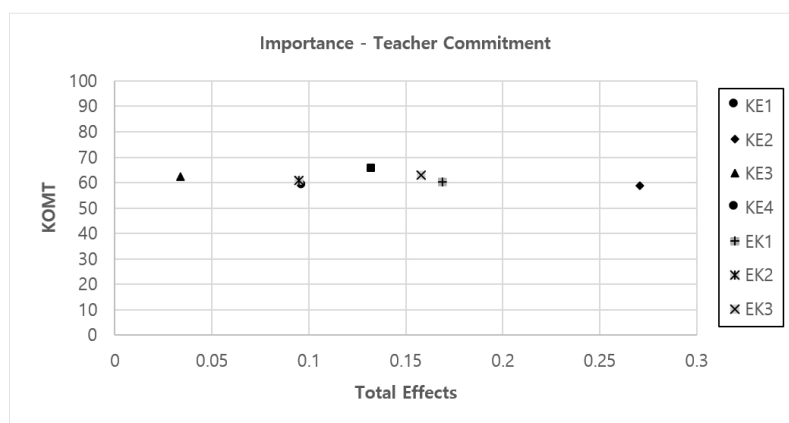


Figure 4. Importance-Performance of Teacher Commitment (Sub-Construct)

Table 8, and Figure 3 show the results of the IPMA analysis based on the main constructs of the study on teacher commitment. The *x-axis* represents the overall effects of emotional competence and self-efficacy factors on teacher commitment. From Table 8 and the graph in Figure 3, the constructs of emotional competence (.603) and self-efficacy (.471) are two important factors on teacher commitment. In terms of emotional competence performance (60.654) and self-efficacy (61.537) also showed that high performance. This means efforts to increase emotional competence and self-efficacy in an effort to increase teacher commitment. However, efforts to improve emotional competence are more effective than efforts to increase self-efficacy in an effort to increase teacher commitment.

Table 8 and the graph in Figure 4 show the importance of the sub-constructs of competence and self-efficacy on teacher commitment. The sub-constructs EK1-teaching strategy (.169) and EK3-student engagement (.158) with performance values (60.516) and (63.076) showed that these two sub-constructs were more important to teacher commitment than the sub-construct EK2-classroom management (.095) with an achievement value (60.799). This means that efforts need to be focused on teaching strategies and student engagement as opposed to classroom management to increase teacher commitment. Moreover, the sub-constructs KE2-self-management (.271) and KE2-self-awareness (.133) with performance values (59.047) and (64.926) had higher importance than KE3-social awareness (.034) and KE4-relationship management social (.097) with achievement values (62.548) and (58.615) in influencing teacher commitment. This means that to increase teacher commitment, efforts to increase self-awareness and self-emotional management are more effective than efforts to increase social awareness and management of teachers' social relationships.

In conclusion, if the teacher education department diversifies activities and programs that can improve the emotional competence and self-efficacy of teachers then the commitment of teachers will increase positively.

Discussion

The findings of the study prove that emotional competence and self-efficacy have a

significant positive relationship with commitment. This means that the higher the level of emotional competence of the teacher, the higher the commitment of the teacher (Golemen, 1998; Zhang et al. 2020) ; the higher the emotional competence, the higher the self-efficacy (Agbaria, 2021; Shafinaz, 2017; Yahya Don et a., 2015); the higher the self-efficacy, the greater the teacher commitment (Barni et al., 2018;Tschnnan-Moran et al, 1998) because there is a significant relationship. Based on the findings from the multiple regression analysis (R^2) for teacher commitment, the findings prove that emotional competence and self-efficacy are positive predictors that can anticipate commitment. However, the findings of the study through the effect size of f^2 the influence of emotional competence on self - efficacy ($f^2=.200$) was higher than the influence of emotional competence on teacher commitment ($f^2=0.63$).

In this regard, the results of IPMA analysis prove that emotional competence and self-efficacy are two important factors for teacher commitment. In terms of performance emotional competence and self-efficacy also indicate that high performance. This means efforts to increase emotional competence and self-efficacy in an effort to increase teacher commitment. However, efforts to improve emotional competence are more effective than efforts to increase self-efficacy to increase teacher commitment (Zhang et al., 2020). In the findings of the importance of the sub-construct of competence and self-efficacy on teacher commitment. The sub-constructs of teaching strategy and student engagement prove that these two sub-constructs are more important to teacher commitment than the sub-constructs of classroom management. This means that efforts need to be focused on teaching strategies and student engagement as opposed to classroom management to increase teacher commitment (Agbaria, 2021; Tschannan-Moran et al., 1998). In addition, the sub-constructs of self-management and self-awareness have a higher importance than social awareness and social relationship management in influencing teacher commitment. This means that in order to increase teacher commitment, efforts to increase self-awareness and self-emotional management are more effective than efforts to increase social awareness and management of teachers' social relationships (Yahya Don et al., 2015). Therefore, preschool teachers need to be adept at actively controlling their emotions by providing their services with smiling hospitality. In this strategy, they need to be adept at disguising, restraining, persuading, and releasing emotions well (Zhang et al., 2020). As a result, the

teacher-student relationship will be more friendly.

According to the theory of emotional competence by Goleman (2001), emotional competence is a positive influence on commitment. Emotional competence encompasses four dimensions namely self-awareness, self-management, social awareness and social relationship management (Goleman, 1998; Shafinaz, 2017; Yahya Don et al., 2015). Based on the research model, it is found that emotional competence influences the commitment of Selangor preschool teachers. Teachers' strong levels of emotional competence have led them to be more committed to students, teaching, school and the profession (Mohd Khairuddin Abdullah, 2017). In addition, this finding found that high emotional competence also affects the self-efficacy of preschool teachers in Selangor, especially teachers' confidence in teaching strategies, children's involvement and classroom management (Agbaria, 2021). This means that if emotional competence changes, then the self-efficacy of preschool teachers will also change positively. For example, teachers' lack of self-awareness and self-management decreases, so their self-efficacy will also decrease. The higher the self-efficacy, the more committed the preschool teacher is (Agbaria, 2021; Cheng & Gan, 2020; Guo et al., 2011). Therefore, preschool teachers need to ensure that their level of emotional competence and self-efficacy is always at a high level so that they continue to be confident in themselves in educating preschool children (Guo et al., 2011; Infurna et al., 2018).

Since this study was only conducted in the state of Selangor, this study is proposed to be implemented in other states throughout Malaysia to look at the state of emotional competence, self-efficacy and commitment of preschool teachers as a whole in Malaysia. Secondly, since this study only focuses on MOE preschool teachers, then this study is proposed to be implemented on private preschool teachers because their large number will affect the quality of early childhood education in Selangor. Thirdly, the data collected is based only on quantitative data without taking into account the qualitative data that is outside the scope of the study. Therefore, further research can be implemented in a qualitative form to get a more comprehensive picture in this field of study.

In conclusion, emotional competence and self-efficacy have a significant positive relationship with commitment in this study. Therefore, if teacher education diversifies activities and programs that can improve the emotional competence and self-efficacy of

preschool teachers, then the commitment of preschool teachers will increase positively to ensure the quality of early childhood education is guaranteed.

Summary

Based on the discussion, this study can be concluded that emotional competence and self-efficacy effectively have a positive influence on the commitment of preschool teachers in the state of Selangor. From the PLS-*predict* and IPMA analysis, emotional competence and self-efficacy are the two important predictor factors to teacher commitment. Besides that, this study has provided more knowledge in the commitment of preschool teachers. Since the results of the study show that emotional competence and self-efficacy have a positive effect on the commitment of preschool teachers, these two factors need to be considered in policy formulation and matters on the management of early childhood education to increase teacher commitment so that the quality of early childhood education can be improved.

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