

Predictors of Parental Involvement in Malaysian Secondary Schools

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ABSTRACT

Past literature points to the fact that the extent of parental involvement in school increases the level of a child's ability and independence in studies during the child's schooling years. The present study investigated the predictors of parental involvement in selected regular secondary schools in Malaysia. The participants of the study were class teachers who had been teaching for more than two years, were selected from 40 schools located in Peninsular Malaysia. A cross-sectional and descriptive study using postal-based survey methods was conducted on a sample of 373 secondary school class teachers. Mediation analysis was conducted using the PROCESS macro with the aim of investigating the relationships between the variables. The findings revealed that the association between the role of creativity in principals' leadership practices and parental involvement in secondary schools was mediated by collaborative school practices and school climate. Further analysis revealed that the mediated model had a moderate effect on parental involvement in

secondary schools. It is, therefore, necessary for secondary school leaders to consider and implement innovative programmes that take into account the important role of increasing parental involvement in the process of transformation.

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INTRODUCTION

Studies that looked more deeply into the development of children's education have found parental involvement as one of the most prominent indicators for school effectiveness (Đurišić & Bunijevac, 2017; Rutter & Maughan, 2002; Shannon & Blysmas, 2007). The learning process is not only confined in the school, but it also takes place at home and in the community. To support parental involvement in school, school plays as an entity that provides a platform for parents to participate in education and establish conditions for transparency and accountability. This is in line with the aspirations contained in the Malaysia Blueprint 2013 -2025 (Ministry of Education, 2017). As a result, the issue of parental involvement has received considerable critical attention through establishing a positive impact between school and community relationships that creates cooperation and support system between each other to improve the quality of student and school.

Importantly, in view of Ministry of Education's initiatives, the current parental involvement initiatives such as *Sarana Sekolah* and *Sarana IbuBapa* in Malaysia are predetermined by the fact that the Ministry of Education of Malaysia aspires to culminate school-parents partnership by the year 2025 (Ministry of Education, 2014). However, there is a paucity of research on focusing strategies and approaches to involve parental involvement in secondary schools compared to primary schools in Malaysia. This is in-line with Vellymalay's

(2012) point of view that indicates that research studies on parental involvement are still inadequate to show the importance of parental involvement to guarantee a child's educational accomplishment. Additionally, in echoing Vellymalay's (2012) argument, Mahamud et al. (2018) indicated that the parental involvement in school activities was not active enough and this deficiency was due to the lack of adequate and proper sensitisation on the effect of parents' participation from management and other private interventions.

Therefore, the present study does so in the context of predicting parental involvement from teachers' perceptions in Malaysian secondary schools. Grounded on the System Theory and Overlapping Spheres Theory, this study attempts to offer empirical evidence on parental involvement in secondary schools. This research focuses on these issues and hopes the findings provide valuable insights to other schools and future studies in Malaysia with an aim towards expanding and improving parental involvement in secondary schools.

Objectives of the Study

The corresponding research questions are listed in the following:

1. Is there a significant relationship between the role of creativity in principals' leadership practices and parental involvement as perceived by class teachers in Malaysian secondary schools?
2. Is there a significant relationship between collaborative school

- practices and parental involvement as perceived by class teachers in Malaysian secondary schools?
3. Is there a significant relationship between the role of creativity in principals' leadership practices and collaborative school practices as perceived by class teachers in Malaysian secondary schools?
 4. Is there a significant relationship between school climate and parental involvement as perceived by class teachers in Malaysian secondary schools?
 5. Is there a significant relationship between the role of creativity in principals' leadership practices and school climate as perceived by class teachers in Malaysian secondary schools?
 6. Does the role of collaborative school practices mediate the relationship between the role of creativity in principals' leadership practices and parental involvement as perceived by class teachers in Malaysian secondary schools?
 7. Does school climate mediate the relationship between the role of creativity in principals' leadership practices and parental involvement as perceived by class teachers in Malaysian secondary schools?
- used synonymously as parental engagement, family engagement, parent-school involvement, family-school partnerships, and teacher-family partnerships among the educationist, theorists, and practitioners (e.g. Epstein et al., 2018; Povey et al., 2016). Similarly, some researchers labelled parental involvement as a home-school partnership, parents as partners, and parental participation (e.g. Ellis et al., 2013). The parental involvement term has also been extended to schools, families, and community partnerships to emphasise on the integration of these three influential contexts in every facet of the academic growth of the children (Epstein & Sheldon, 2019; Gálvez & Tarrés, 2017). Nevertheless, the significance of parental involvement in support of students of all ages has been widely acknowledged by numerous researchers, practitioners, and policymakers, no matter what type of terminology emanating from the literature (Povey et al., 2016; Sheldon & Turner-Vorbeck, 2019). In this study, parental involvement is referred to as the extent and nature of parental involvement in supporting students' success and collaboration actions in both formal and informal educational experiences of their child.

Role of Creativity in School Principals' Leadership Practices

Goertz (2000) claimed that “complex issues confronting school leaders today required leadership marked by high levels of creativity” (para. 2). Saĝnak et al. (2015) mentioned that creativity and effective organisations were not linked naturally but

LITERATURE REVIEW

Parental Involvement

Parental involvement has been studied under various terms. The term is widely

required a leader who was able to initiate and regulate the changes into resourceful form, and thus able to innovate and lead the transformation. In this study, the role of creativity in principals' leadership practices is seen as a leader who is capable to execute ideas, solutions, and solve problems to amplify the productivity and the growth of the school.

Increasingly, it is vital for school leaders to acquire the skills and abilities to lead stakeholders especially parents in catering towards the need for 21st-century education (Basadur, 2004; Botha, 2013; Kuan, 2012). A strong commitment from the school leader in resolving problems based on appropriate decision making and contributing to sustaining students' educational excellence (Ministry of Education, 2014). In this sense, Stoll and Temperley (2009) believed that creative leaders focused on seeing and doing things differently so as to improve the lives of each student as well as directing the school to a better prospect.

The tendency for parents to involve in school increases when schools initiate activities that encourage them to be involved (Epstein & Sheldon, 2019; Simon, 2017). Simon (2017) asserted that the involvement of parents both at school and at home depended on the role of the school principal in organising and executing the plans. It is the accountability of the principal to encourage strong partnerships among families, teachers, and students. Similarly, Goldring and Sims (2005) described creativity as an effort that needed to be deepened and nurtured by taking the courage to risk in executing some

of the resourceful solutions by bringing together the intellectual capital of the school and community resources to propel student attainment. Based on these claims, the researcher attempts to incorporate the role of creativity in school principals' leadership practices into the research framework to enhance parental involvement in secondary schools.

Collaborative School Practices

Gálvez and Tarrés (2017) referred to family-school collaboration as collaborative activities and strategies initiated by the schools and teachers to involve parents or families in assisting their children and other aspects of school improvement. Similarly, O'Hehir and Savelsberg (2014) pointed out that school efforts or practices were more likely to be cultivated in both at home and school when parents and schools worked together to facilitate a supportive learning environment for students. In this study, collaborative school practices are referred as the school's effort to address a meaningful parental involvement in the school system with mutual benefits to assist parents in their children's education. These six types of practices namely parenting, communicating, volunteering, learning at home, decision making, and collaboration with the community were developed by Epstein et al. (2018) are used to present various activities to mobilise resources and to provide parents with opportunities to involve in school.

In today's educational landscape, parental involvement requires the willingness

to share and build great relationships. This creates a beneficial partnership that involves constant communication between the school and home and the active participation of parents and communities in the development of strategic plans for school achievement and improvement (Ahmad et al., 2016; Mahamud et al., 2018; Krane & Klevan, 2019; Ramalingam et al., 2019; Yonson, 2016). Based on these claims, the researcher attempts to incorporate collaborative school practices in the research framework to enhance parental involvement in secondary schools.

School Climate

The concept of school climate is an effort to recognize the inner, anthropological side of the schools. School climate symbolises the eminence of the entire school community's experiences of school life which is silhouetted by the reflection of the norms, goals, values, teaching practices, interpersonal relationships, and physical surroundings, organisational structures (Cohen et al., 2009; Thapa et al., 2013). It provides a greater understanding of school organisations as it elucidates the vitality and dynamics of social and professional interactions between school administrators, school staff, teachers, students, parents, communities, and stakeholders (Bear et al., 2014; Cohen et al., 2009). In this study, school climate is referred as class teacher's perceptions related to the quality, flexibility, challenges, and uniqueness of the school environment tailored to school affairs and community.

A positive school climate has been a subject of voluminous reviews as students, staff members, and parents work together to create a positive, safe, supportive, and nurturing school environment (Cohen et al., 2009; Thapa et al., 2013), which contributes to improved social-emotional and academic outcomes among students (Berkowitz et al., 2017; Reynolds et al., 2017). Reflecting on this situation, there is a strong interest in studying school climate as a potent predictor towards parental involvement in secondary schools. Based on these claims, the researchers attempt to incorporate school climate in the research framework to enhance parental involvement in secondary schools.

Theoretical Perspectives

This study attempts to integrate a few theories by reflecting the development of thought on ways parental involvement can be encouraged to support their child's school success and educational outcomes.

Overlapping Spheres Theory

The overlapping spheres theory facilitates schools and educators on ways to develop effective partnerships as well as the implementation of procedures between school, home, and community (Epstein et al., 2018; Griffin & Steen, 2010; Thompson et al., 2014). Schools have applied the overlapping spheres theory to highlight the influence of parents and school partnerships on student's learning and development (see Gálvez & Tarrés, 2017; Hamlin & Flessa,

2016). This reason justified a focus on these partnerships as the purpose of the present study. In addition, the overlapping spheres theory provides a general framework for understanding parental involvement and graphically illustrates the potential importance of school-parents partnership.

Epstein's Framework of Six Types of Involvement

Essentially, this study attempted to highlight the duty of schools to reach out to families, that underpin the various involvement activities that are initiated by schools. Epstein (2010) outlined the 'Framework of Six Types of Involvement' and explained the importance of caring educational initiatives and how these particular initiatives could improve academic excellence, good communication, and productive interactions between school and parents (Park & Holloway, 2017; Thompson et al., 2014). Further, it focuses on the role and responsibility of the educational sector to ensure a level playing field between families and schools. Thus, collaborative school practices appear to be an accurate indicator of how well schools take the initiative and of their efforts to involve parents as partners in their children's learning and social development.

Generativity Theory

In resembling Epstein's Generativity theory (1999), the role of creativity in leadership practices recognises the power of promoting and nurturing creativity to

encourage individual teachers' creative thinking, expand teachers' time and space in facilitating creative practicalities and increase shared resources of ideas and strategies among teachers (Epstein, 1999; Epstein et al., 2013). In other words, these activities reflect the leadership and advocacy roles needed to facilitate parental involvement in the six different types of partnership-related activities and establish supportive and healthy school climate. As Amabile (2017) noted, the effective implementation of programmes depends on the collaboration between a team and individuals that are able to develop and initiate ideas. Ultimately, such leadership practices can improve parental involvement, leading to more innovations within, and increased performance of organisations. This proposition was supported by Shannon and Bylsma's (2007) High Performing School (HPS) Model, which includes leadership as the subset that represses the rest of the characteristics of a high performing school, as shown in Figure 1.

Based on the aforementioned discussion, the present study sought to integrate the role of creativity in school principals' leadership practices in promoting parental involvement in secondary schools. Hence, when focusing on parental involvement, the critical role of school leadership is attributed to the ability, capacity, potential, or competence of a school leader and the nature of the overall approach implemented by the school leader to enhance the participation of parents in the school.

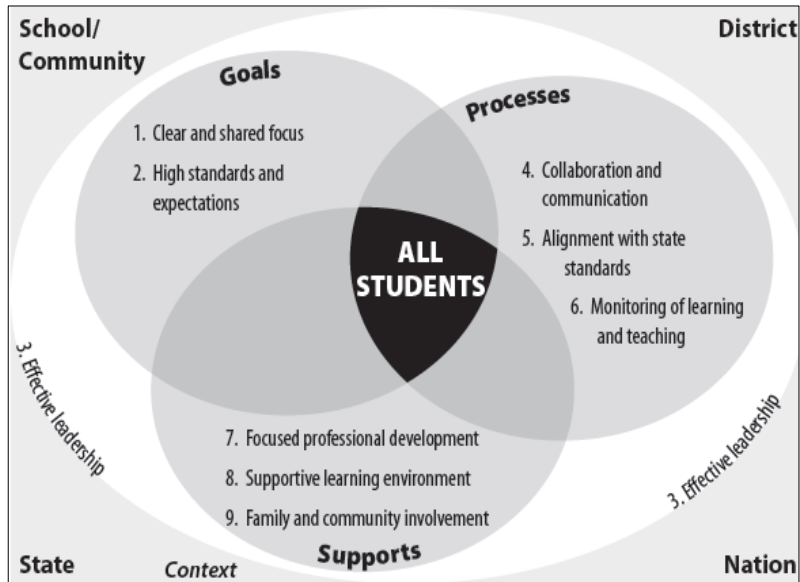


Figure 1. Emphasising the importance of leadership aspects in schools

Source: Adopted from Shannon and Bylsma (2007, p.4)

Bronfenbrenner’s Ecological Theory

Bronfenbrenner’s ecological theory (1977) served as the foundation for connecting school climate and parental involvement (see Berkowitz et al., 2017; Hashim et al., 2015; Povey et al., 2016; Thapa et al., 2013; Vellymalay, 2012). This theory emphasises the relation between home and school that influences children’s academics and development. It theorizes a framework to understand the school environment as the linchpin in establishing learning and reinforcing school programmes to support parental involvement as aligned to the microsystem. In essence, school climate encapsulates the outcome of the interactions between the school community relations and the basic physical facilities in the school.

Connecting Theories under System Theory

School is an open system institution that receives influence from its surrounding (Hoy et al., 2013). Parents are naturally “part of the school’s surrounding community, in which their values are closely linked to the school ethical climate” (Rosenblatt & Peeled, 2002, p. 351). Likewise, all schools are open systems that consist of overlapping responsibilities among schools, families, community, stakeholders, private sectors, and school environment, which need to be acquainted simultaneously towards children’s academic, emotional, and social development.

When a school leader initiates effective parental involvement programmes and when the school has a supportive environment,

stronger networks and relationships are established. Thus, when the school is able to fulfil the needs of the parents, stronger ties between the school and the parents exist, thereby encouraging parental involvement in their children’s education. Figure 2 displays the application of the above theories in this study.

The centrality of system theory to school-community partnership is well acknowledged in Getzels-Guba model of social system view especially on teacher-parents partnership and school-parents partnership (Lunenburg & Ornstein, 2012). Figure 3 illustrates the framework for understanding the administrative processes within the interactions in the systems theory developed by Getzels and Guba in 1957 (as cited in Lunenburg & Ornstein, 2012).

In a school setting, school administrators, teachers, and parents have duties and actions that are expected from each of them, as well as anticipations that constitute the quality of a school’s performance. Therefore, the role or personality plays an important part in ensuring that needs are fulfilled. For example, a school principal may be expected by the MoE to emphasise teaching and service to the student and to the school community, respectively, while parents expect an emphasis on the needs of their children at school. Thus, these approaches clearly view the role of school leaders as ensuring the effectiveness of practices (collaborative school practices) in enhancing parental involvement, and specifying a supportive environment (school climate) to foster parental involvement.

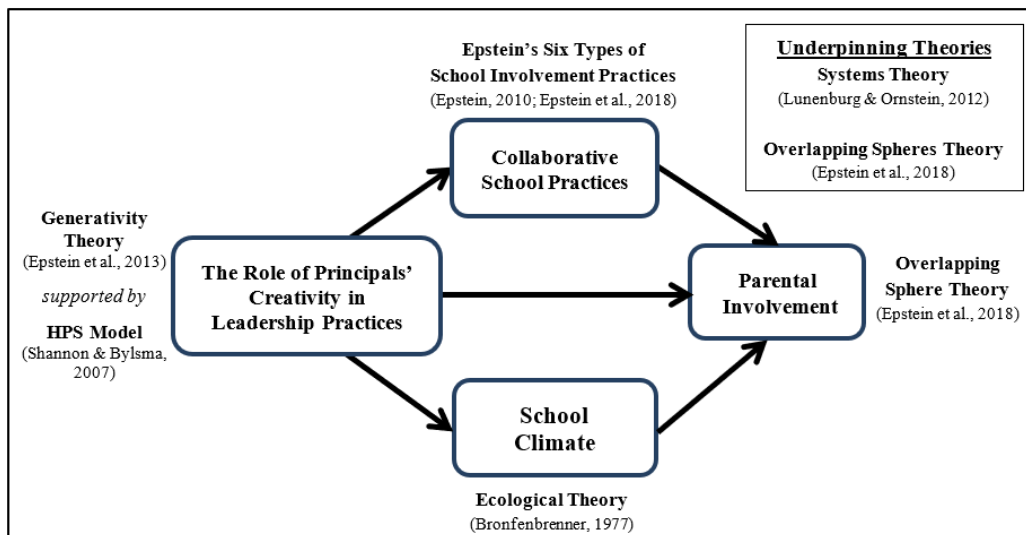
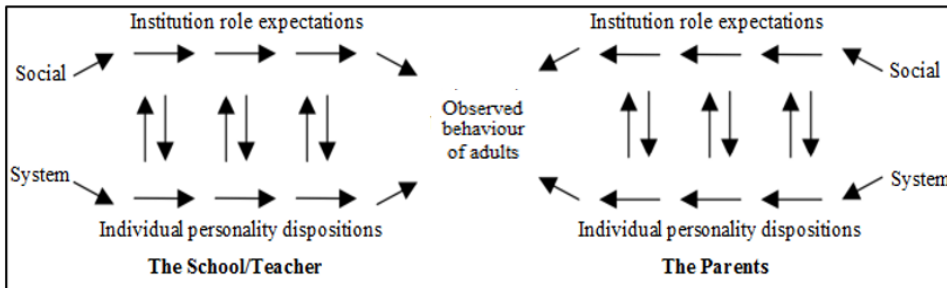


Figure 2. Theoretical framework of the study



Source: Adapted from Lunenburg and Ornstein (2012, p.48)

Figure 3. The Getzels-Guba Model

METHODOLOGY

Population and Sampling Procedures

The target population of this study is regular secondary school class teachers from Peninsular Malaysia. Four states were selected from each region based on the highest number of regular secondary schools namely Perak, Selangor, Pahang, and Johor. Regular secondary schools are known as public schools with centralized education systems. Using a multistage cluster stratified sampling technique, class teachers were randomly selected based on two stages. This is to ensure the selected samples are representative and generalizable (Fraenkel et al., 2019). At the school stage, using a proportionate stratified sampling procedure, schools were drawn from Perak (13), Selangor (14), Pahang (11), and Johor (14). In the second stage, ten teachers were randomly selected from each school that represented the four states using a disproportionate stratified sampling procedure. This is supported by Brown (1967) that a random selection of teachers ranging from four to ten in numbers for

each school is sufficient to represent the thoughts and perceptions of teachers in the entire school.

In the final stage, purposive sampling was used to select ten respondents from each school based on the three sampling frame:

- a. Firstly, the respondents should be class teachers from regular secondary schools;
- b. Secondly, the respondents should be a class teacher who has rendered their service in the teaching profession for at least two years or more;
- c. Thirdly, the respondent should be a trained teacher and not a temporary teacher.

The present study was cross-sectional and data were gathered over a period of five weeks. A total of 373 responses was obtained from the group of 400 potential respondents, with 27 questionnaires being discarded due to incomplete data and unengaged responses. The response rate was 93.25%.

Data Collection Procedures

Questionnaires were sent by post to the randomly selected forty regular secondary schools from the listed directory. Detailed instructions were provided to the liaison person (Assistant Principals also known as *Guru Penolong Kanan*) and participants. A return envelope with affixed postage stamps was provided to facilitate the return of the completed questionnaires from the school liaison person. It was also mentioned that the questionnaires were supposed to be answered by class teachers who had worked for more than two years with schools as a control measure. To ensure that the questionnaires were completed by class teachers, the liaison person was requested to obtain the school stamp and signature from the school principal on the checklist note and was asked to return to one of the researchers together with the filled up questionnaires.

Validity

The researcher imposed two screening stages to ensure the quality of the translated items. Firstly, the back-to-back translation technique was used to ensure and preserve the meaning of the original items. Secondly, face validity was established by having language teachers (Malay and English) and panel experts to scrutinize the translated questionnaires to ensure that the contents did not deviate from the original version.

Variables and Measurements

A questionnaire using a five-point Likert-

type scale was employed to gather data on the constructs of the research model. Permission to adapt the questionnaires was obtained from the respective authors. The dependent variable, parental involvement, was measured using 15 items derived from Wee (1999). The responses were measured using a five-point Likert-type scale anchored by 1 = 'Never involved'; 2 = 'Rarely involved'; 3 = 'Sometimes involved'; 4 = 'Often involved' and 5 = 'Always involved'.

The units of measurement for the role of creativity in principals' leadership practices were adapted from Epstein et al. (2013) and rated on a 5-point Likert-type scale, in which 1 = 'Strongly disagree' and 5 = 'Strongly agree'. The items for collaborative school practices were obtained from Epstein et al. (2018) and Ministry of Education (2013) and were assessed based on the five-point frequency responses of 1 = 'Never practised'; 2 = 'Rarely practised'; 3 = 'Sometimes practised'; 4 = 'Often practised' and 5 = 'Always practised'.

The measurement units for school climate were derived from Bear et al. (2014). The original scale was assessed based on four point Likert scale ranging from 1 = 'Disagree a lot' to 4 = 'Agree a lot'. In this study, the scale was modified with permission from the author to a five point Likert scale. The items were scored based on a five point Likert scale with 1 = 'Not true at all', 2 = 'Not true', 3 = 'Not sure', 4 = 'True' and 5 = 'Absolutely true'.

Table 1 presents the reliability of the instrument. Overall, the entire instrument showed good internal consistency, as

Table 1

Reliability of the instrument (n = 50)

Construct (Latent Variables)	Total Items	α
Parental involvement (PI) (Dependent variable)	15	.840
The role of creativity in principals' leadership (CL) (Independent variable)	40	.843
Collaborative school practices (SP) (First mediator variable)	20	.879
School climate (SC) (Second mediator variable)	40	.809

supported by the rule of thumb from George and Mallery (2016, p. 232).

Common Method Variances

The present study adopted Harman's single-factor test as suggested by Podsakoff et al. (2003), in which one fixed factor is extracted from all principal constructs and the one extracted factor should explain less than 50% of the variance. The analysis showed that the one extracted factor explained 30.16% of the variance.

A correlation of more than .9 indicates common method variance (CMV) (Bagozzi et al., 1991). In the present study, using the Pearson correlation coefficient, the relationship between the challenge subordinate and volunteering was .234, as displayed in Appendix A. In other words, there was minimal CMV.

RESEARCH FINDINGS

Sample Characteristics

The study involved 373 respondents. Most of the respondents had served in their current

school for more than ten years ($n = 276$, 63.3%). Most of them were class teachers for Form 5 ($n = 84$, 22.5%) and Form 4 ($n = 80$, 21.4%) classes. Only 2.1% of the respondents were class teachers for lower and upper six forms. Meanwhile, 51.8% ($n = 193$) of the respondents were class teachers for the lower secondary levels. Further, the respondent's profile also showed that most of the respondents ($n = 117$, 33.4%) had teaching experiences for more than twenty years in their present school. The majority of the participants had teaching experiences for more than eleven years or equal to twenty years ($n = 155$, 41.6%). It clearly shows that the selected respondents fulfilled the three sampling criteria.

Inference Analysis

The seven research questions, which involved the direct relationships and the mediating effect were independently assessed using the PROCESS macro for SPSS utilising simple mediation analyses (Model 4), as provided by Hayes (2018).

The mediation is said to be significant if zero is not straddled between the upper and lower levels of the confidence intervals (Hayes & Preacher, 2010; Preacher & Hayes, 2008). Table 2 summarises the results of the PROCESS macro assessment for direct and mediated relationships, which were generated using bootstrapping functions.

The bootstrapping approach was used to examine the possible mediating effect of collaborative school practices and school climate on the relationship between the

role of creativity in principals' leadership practices and parental involvement. The bootstrapping method provides an estimate of the magnitude of the indirect effect as well as an analysis of the statistical significance of the indirect effect. The confidence interval for the point estimate can also be calculated by using the upper bound and lower bound method (Hayes, 2018). The significance of the path coefficients was examined using 95% confidence intervals (BootLLCI and BootULCI).

Table 2

Bootstrap results of total, direct and indirect effects of mediation analysis (N = 373)

Path	β	Boot SE	ρ (Two-tailed)	Boot 95% CI		VAF
				LLCI	ULCI	
<u>Total effect</u> (unmediated, path c) CL → PI	0.4485	0.0402	.0000	0.3694	0.5276	
<u>Direct effect</u> (mediated, path c') CL → PI	0.1875	0.0361	.0000	0.1166	0.2584	
<u>Indirect effects</u>						
CL → SP (path a)	0.4761	0.0432	.0000	0.3911	0.5611	
SP → PI (path b)	0.2992	0.0515	.0000	0.1979	0.4004	
<u>Mediator effect - SP</u>						
CL → SP → PI (a x b)	0.1424	0.0350		0.0827	0.2209	43.16%
<u>Indirect effects</u>						
CL → SC (path d)	0.3303	0.0411	.0000	0.2495	0.4110	
SC → PI (path e)	0.3591	0.0542	.0000	0.2526	0.4657	
<u>Mediator effect - SC</u>						
CL → SC → PI (d x e)	0.1186	0.0278		0.0704	0.1804	38.75%

Note: $R^2 = 0.741$, $\rho = 0.000$

5000 bootstrap samples; $\alpha = .05$; CI - 95% confidence intervals;
 β - standardised coefficients; Boot SE - bootstrap standardised errors;
 LLCI - Lower limit confidence intervals; ULCI - Upper bound confidence intervals; VAF - Variance Accounted For

The first research question of this study was to determine the influence of the role of creativity in school principals' leadership practices on parental involvement. As seen in Table 2 (path c), the results disclosed that the role of creativity in leadership practices positively and significantly influenced the extent of parental involvement, yielding the coefficient corresponding to path c, as shown in Figure 4. The standardised regression coefficient for this total effect was $\beta = 0.449$, $SE = 0.040$, $p < 0.05$. This finding signified that the role of creativity in school principals' leadership practices promote parental involvement. Figure 4 show the results of the total effects assessment.

Research question two to research question five were assessed to determine the influence of collaborative school practices and school climate on the role of creativity in school principals' leadership practices and parental involvement. For collaborative school practices, the analysis showed that the role of creativity in school principals' leadership practices was a significant predictor of collaborative school practices (path a), with the standardised regression coefficient (β) = 0.476, $SE = 0.043$, $p < 0.05$ as displayed in Table 2.

Additionally, collaborative school practices was found to be a significant predictor of parental involvement (path b), with $\beta = 0.299$, $SE = 0.052$, $p < 0.05$. Meanwhile, for school climate, the findings showed school climate has a significant relationship for both the role of creativity in school principals' leadership practices (path d) with $\beta = 0.330$, $SE = 0.041$, $p < 0.05$ and parental involvement (path e) with $\beta = 0.359$, $SE = 0.054$, $p < 0.05$. The direct effects of the role of creativity in school principals' leadership practices on parental involvement (path c') via collaborative school practices and school climate are presented in the mediation model depicted in Table 2 and Figure 5.

Next, the mediation analyses were carried out to answer research questions six and seven. The outcomes of mediation testing are also presented in Figure 5. The present study used mediation analysis based on 5,000 bootstrapped samples utilising bias-corrected and accelerated 95% confidence intervals. The outcome revealed that the indirect effect of the role of creativity in principals' leadership practices on parental involvement through the mediator of collaborative school practices is statistically

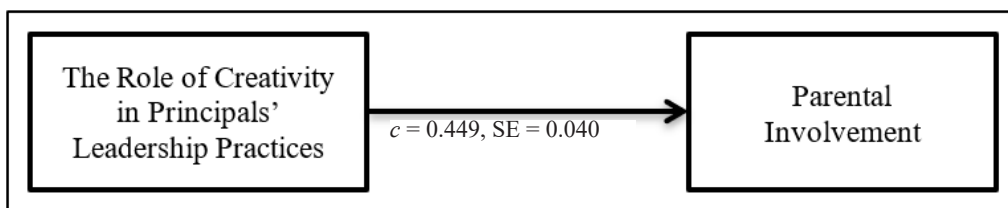


Figure 4. Total effect between the role of creativity in principals' leadership practices on parental involvement (path c)

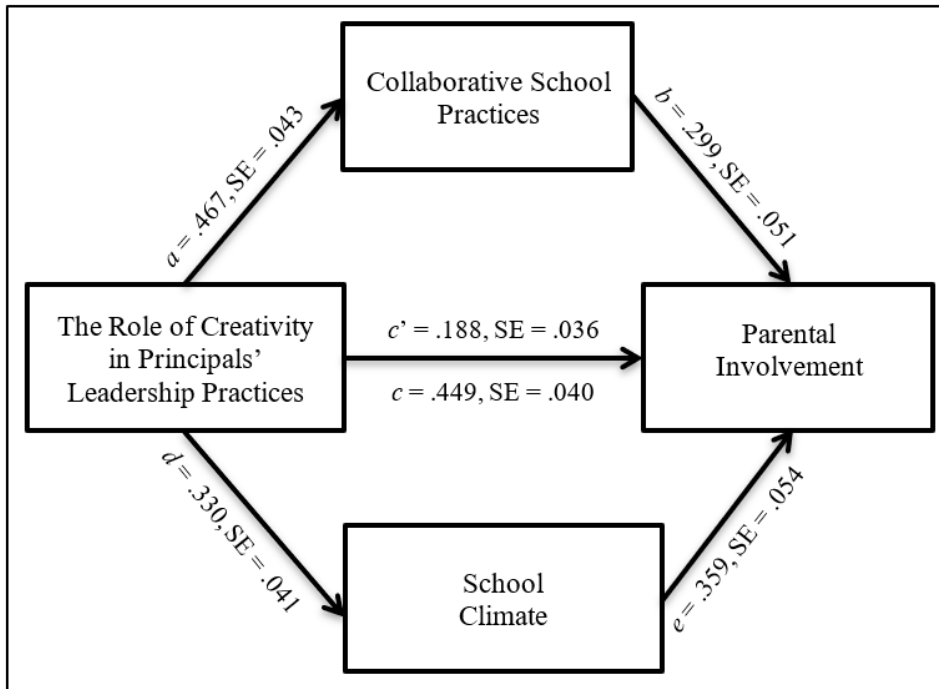


Figure 5. Direct effects of the role of creativity in principals' leadership practices on parental involvement (path c') via collaborative school practices and school climate

significant with $\beta = 0.142$, $SE = 0.035$, 95% confidence interval, $LLCI = 0.0827$ and $ULCI = 0.2209$, as displayed in Table 2. The mediation is said to be significant if zero is not in between the upper and lower limits of the confidence intervals (Hayes & Preacher, 2010). Therefore, in the present study, the indirect effect of collaborative school practices was statistically significant and the indirect effect did not straddle a '0' in between the upper limits and lower limits when bootstrapped at 95% indicating a mediation effect.

As for the school climate, further analysis revealed that school climate mediated the relationships between the role of creativity in principals' leadership

practices and parental involvement. The bootstrapping analysis showed that the indirect effect was significant $\beta = 0.119$ with a p -value of 0.000. Further, as emphasised by Preacher and Hayes (2008), the indirect effect did not straddle a '0' in between the $ULCI (0.0704)$ and $LLCI (0.1804)$ when bootstrapped at 95%.

The strength of the mediation was further supported by computing the variance accounted for (VAF) index (Hair et al., 2017). Hair et al. (2017) described that the VAF was calculated as $VAF = ab/(c' + a*b)$, which determines the size of the indirect effect in relation to the total effect. Accordingly, it is assumed to be a full mediation when the VAF has an outcome

above 80% while a value between 20% and 80% is partial mediation followed by a value less than 20% means there is no mediation. In the present study, the VAF for the indirect effect was 43.16% (collaborative school practices) and 38.75% (school climate) respectively. Therefore, collaborative school practices and school climate only partially mediated the relationship between the role of creativity in principals' leadership practices and parental involvement.

The mediating effect is equal to the total effect subtracted by the direct effect, which was $c - c' = 0.261$. According to Ferguson (2009), effect size indicates the magnitude of the relationship observed between the variables. In this study, the effect size was 0.261, which was moderate (Ferguson, 2009). This finding was also supported by Muijs's (2012) and Cohen's (1992) rule of thumb. Therefore, the mediated model demonstrated a moderate effect size on parental involvement.

These findings showed that parental involvement could be enhanced by the role of creativity in school principals' leadership practices through collaborative school practices and school climate. In other words, if a principal has thoroughly incorporated the role of creativity in his/her leadership practices, then it can be predicted that parental involvement will be high, through the aid of collaborative school practices and school climate. Overall, the model explained 74.1% of the variance in parental involvement ($R^2 = 0.741$, $p = 0.000$). This means that the remaining 25.9% of the variance is unable to be predicted as it

may be caused by other factors that are not examined in this study.

DISCUSSION

The focal point of this study is to determine the predictors of parental involvement in secondary schools with regards to the role played by the school to foster an effective school-parent partnership. The findings showed that the role of creativity in principals' leadership practices played a key part in influencing parental involvement in secondary schools. This result speaks to the need for schools, especially those in the process of creating partnership programmes, to actively include school principal in their actions and progress. This finding corroborates the assumptions of the Generativity Theory and Shannon and Blysmas's HPS model in which creativity as one of the vital elements in effective leadership and in particular the role of creativity in principals' leadership practices as the potent predictor towards parental involvement. As such, the role of creativity in principals' leadership practices could lead to an internalised set of role expectations that teachers should be creative and problem-solver at developing comprehensive parent-involvement programmes. This can influence the amount and the type of parental involvement in school. For instance, school leaders can inspire teachers' creativity by displaying their own creative problem-solving skills. School leaders can facilitate teachers by encouraging teachers to obtain training to expand their experience, and knowledge outside of

their current areas of expertise to promote parental involvement. According to Shaked and Schechter (2017), leaders can exhibit idealized influence as an integral part of school improvement by taking initiatives to ignite collaboration with school-community relations and stakeholders. Although most of the parents gain from a supportive and caring relationship with their child's teachers, this relationship is stronger if the implementation of professional development programmes were integrated with site-based practices (Povey et al., 2016). Through this initiative, teachers may also gain confidence in their ability to assist parents in their child's learning.

School leaders and teachers need to make an effort to ensure the success of the best practices in parental involvement programmes by emphasising on the importance of choosing suitable activities that enable parents to be involved individually. As the essence of effective school-home partnership is not much on parental involvement programmes but how well schools have reached the decision about what the school will do and exactly how the school carries out the programmes (Epstein & Sheldon, 2016). Reflecting on Generativity Theory and System Theory, the findings revealed that the role of creativity in principals' leadership practices influence parental involvement not only through principals' expertise, creative abilities, and enthusiasm, but also mediated by collaborative school practices that support towards establishing effective and progressive parental involvement

programmes. This finding is in agreement with the findings from Ramalingam et al. (2019) which stated that parents felt more comfortable to engage in their child's education when the school took the effort to communicate with parents about school meetings, events, programmes, and activities that needed to be attended by parents.

The role of creativity in principals' leadership practices plays a pertinent central role in allowing teachers to utilize the resources, express and execute their ideas, as well as broaden their knowledge and skills (Epstein et al., 2013; Zhang et al., in press) to engage parental involvement in school. Similarly, school leaders who encourage teachers to broaden their knowledge and skills as well as allowing teachers to express their ideas will be highly inspired to communicate and assist parents. This is because, without the support of school leaders and school staff, it is impossible for teachers to assist and establish a partnership with parents (Athanasoula-Reppaa et al., 2010; Lipsky et al., 2017). It is vital for school leaders to be supportive and willing to accept and guide parents in a constructive manner. As such, there must be an effort from the school to connect parents where they can contact teachers and administrators who work with their children. For example, the celebration of different religious and cultural festivals is also common in most of the schools in Malaysia. Many schools see these as a way of giving recognition to the children's different backgrounds and an opportunity to involve parents as well.

School climate reflects the internal side of a school that leads to stronger bonding between school and parents. This finding highlights that secondary schools do exhibit care for parents by creating an atmosphere that is respectful and constructive for parents, students, stakeholders, or anyone within the school compound. Clearly, this exemplifies that secondary school administrators and teachers are well informed and consulted to maintain an 'open door' approach for parents to contact and visit the school. As schools encourage parents to become involved, parents' perceptions about school improve and in turn create an atmosphere where parents want to be involved in their child's education. By understanding the need and interest of students and parents, school climate seemed to rely on the boundaries that schools create with parent-teacher relations to support teachers, parents, and students to manage the unique experiences with the school (Lipsky et al., 2017). This develops a shared structure in school organisation to collaborate with teachers, school staff, parents, and community towards establishing an inclusive and equitable environment.

These findings can be explained by the fact that the role of creativity is more likely to be fostered by supervisors (school leaders), only if supervisors (school leaders) encourage and implement new ideas from co-workers (teachers and school staff) (de Jong & Hartog, 2007; Zhang et al., in press). The characteristics of the leadership style itself are conducive to be applied in schools and the change factors to demand

such creativity elements to be integrated with the current leadership style practiced by secondary school leaders. When principals encourage and inspire teachers to develop meaningful partnerships between school and parents, it can lead to the development of a shared understanding that will contribute towards improving teachers' perceptions and attitudes about the school environment. This is in line with Amabile's (1988) theoretical support based on the componential theory of creativity which identifies management practices as one of the factors that impact the work environment and in return impacts employee creativity.

In view of the theoretical contribution, this study has integrated the System Theory (Lunenburg & Ornstein, 2012) and Theory of Overlapping Spheres (Epstein et al., 2018) as the main underpinning theories and supplemented with three other theories/framework i.e. Generativity Theory (Epstein, 1999), Six Types of School Involvement Practices (Epstein, 2010; Epstein et al., 2018), and Ecological Theory (Bronfenbrenner, 1977) to explain the factors that contribute towards parental involvement in secondary schools. The System theory has supported the integration of school leadership, schools' efforts, and school environment. Additionally, in this study, it was found that the combination of creativity in principals' leadership practices is important in explaining innovative and creativity in the school's efforts and practices towards improving parental involvement. Besides, the integration of these theories has led to the mediation effect of collaboration

school practices and school climate towards parental involvement especially on the relationship between the role of creativity in principals' leadership practices and parental involvement. Such an attempt is still novel in parental involvement literature.

Although the present study has yielded important findings and added to the existing body of knowledge, the researchers acknowledge that there are certain areas that can be explored further. A similar study can be further enhanced by combining research designs into a mixed-method approach to examine the relationship between these variables. Interviews, site visits, and observations can be integrated into the research which will help to reveal a deeper understanding of the respondents' perceptions. Thus, it is recommended that future research should include other techniques of data collection such as interviews and direct observation for the purpose of cross-validation on the responses given.

The sample for the present study consisted only of class teachers. Another potential area of research for future study is the use of the split sample approach to reduce or eliminate the issues of bias when data is collected from a single source. In the educational context, using this approach, the study can be complemented by collecting data from multiple groups of respondents, such as principals, teachers, students, and parents. This type of research design and analysis reduces the potential source of bias referred to as common method variance.

In summary, there are numerous ways

that schools can be involved in school-family-community partnerships. This study begins to demonstrate the various ways that schools can partner with parents and communities, as well as the role of creativity in principals' leadership practices, collaborative school practices, and school climate that is needed in developing and implementing partnership activities. This finding was mirrored in a quantitative study where the role of creativity in principals' leadership practices was related to stimulate certain behaviours of teachers that fostered a critical role in parental involvement. Working on parental involvement program, schools need to take into account the ability and needs of parents especially barriers that are being greater obstacles in collaboration with the school and the support received from the school environment can be among the other possible solutions to establish an effective way to assist students' academic attainment and social support. It is hoped that secondary schools in Malaysia are able to play a more integral role in creating and implementing school-family-community partnerships within the context of parents' ability that strive to meet the needs of all students.

CONCLUSION

The role of creativity in principals' leadership practices is seen as the ability to develop creative solutions for increasing productivity, engaging teachers in problem-solving, and encouraging parental involvement. School leaders are the cornerstone of a school organisation and have the capability to

create the conditions that enable students, teachers, parents, and communities to work together to generate new ideas. These ideas will create awareness of the need to adapt to the rapid changes of the times and enable the school organisation to progress towards education transformation.

School efforts in planning and initiating activities or strategies play a significant contribution towards fostering parental involvement in school events as schools always serve as a platform that enables parents to acquire information on their child's social and academic development. Further, a healthy and supportive school climate is seen as a key factor in increasing parental involvement in secondary schools. A highly positive school climate creates a coherent environment that allows everyone to be involved and has a greater impact on parental involvement in school-related programmes.

Schools should, therefore, support greater parental involvement through developing and implementing strategies as well as fostering a healthy and supportive school climate to increase parental involvement in secondary schools. The framework proposed in the present study supports the MEB agenda and the *Sarana* toolkits, which will substantially strengthen the Ministry of Education's efforts to improve student and school quality.

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APPENDIX

Appendix A. Correlation matrix for all constructs

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1												
2	.637**	1											
3	.719**	.685**	1										
4	.296**	.318**	.309**	1									
5	.256**	.259**	.224**	.694**	1								
6	.349**	.349**	.379**	.648**	.621**	1							
7	.306**	.309**	.320**	.666**	.694**	.754**	1						
8	.244**	.290**	.254**	.514**	.511**	.592**	.609**	1					
9	.327**	.365**	.316**	.511**	.548**	.587**	.647**	.647**	1				
10	.270**	.298**	.271**	.554**	.563**	.609**	.664**	.625**	.659**	1			
11	.285**	.311**	.311**	.617**	.609**	.655**	.697**	.569**	.576**	.699**	1		
12	.414**	.406**	.423**	.286**	.271**	.395**	.324**	.284**	.332**	.316**	.353**	1	
13	.333**	.421**	.381**	.331**	.289**	.405**	.382**	.303**	.351**	.286**	.313**	.690**	1
14	.399**	.376**	.392**	.271**	.224**	.305**	.294**	.234**	.311**	.314**	.308**	.667**	.620**
15	.419**	.361**	.454**	.216**	.155**	.250**	.248**	.151**	.286**	.258**	.265**	.570**	.538**
16	.394**	.312**	.360**	.242**	.208**	.354**	.245**	.246**	.266**	.268**	.298**	.632**	.562**
17	.458**	.438**	.440**	.181**	.150**	.309**	.199**	.176**	.235**	.205**	.216**	.634**	.602**
18	.420**	.392**	.457**	.151**	.297*	.273**	.182**	.154**	.211**	.217**	.209**	.388**	.367**
19	.349**	.385**	.425**	.163**	.110*	.264**	.211**	.155**	.220**	.232**	.242**	.399**	.400**
20	.370**	.375**	.401**	.181**	.179**	.286**	.226**	.150**	.208**	.275**	.284**	.424**	.378**
21	.404**	.413**	.416**	.291**	.214**	.365**	.270**	.240**	.304**	.322**	.309**	.452**	.376**
22	.399**	.368**	.405**	.248**	.202**	.348**	.267**	.239**	.270**	.294**	.287**	.446**	.410**
23	.396**	.423**	.440**	.159**	.158**	.244**	.208**	.188**	.214**	.279**	.288**	.523**	.430**

Note: ** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

APPENDIX

Appendix A. Continued

	14	15	16	17	18	19	20	21	22	23
1										
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3										
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	Note:									
	1	1	1	1	1	1	1	1	1	1
	.730**	.478**	.594**	.565**	.725**	.744**	.621**	.621**	.621**	.621**
	.562**	.581**	.369**	.444**	.690**	.597**	.594**	.594**	.594**	.594**
	.617**	.514**	.333**	.428**	.721**	.618**	.632**	.632**	.632**	.632**
	.452**	.495**	.412**	.539**	.737**	.630**	.632**	.632**	.632**	.632**
	.392**	.410**	.397**	.476**	.737**	.630**	.632**	.632**	.632**	.632**
	.375**	.504**	.377**	.476**	.737**	.630**	.632**	.632**	.632**	.632**
	.474**	.492**	.377**	.476**	.737**	.630**	.632**	.632**	.632**	.632**
	.449**	.468**	.393**	.555**	.630**	.617**	.632**	.632**	.632**	.632**
	.471**	.468**	.393**	.555**	.630**	.617**	.632**	.632**	.632**	.632**

Note: ** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).