

# Parental Involvement and Student Behaviour in Urban Primary Schools: A Quantitative Investigation through the Lens of Epstein's Framework

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## Abstract

Parental involvement is widely acknowledged as a critical determinant of children's behavioural development, yet evidence regarding its differentiated effects within urban Malaysian primary schools remains limited and fragmented. This study examines the relationship between the six dimensions of Epstein's parental involvement framework (parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community) and student behaviour in urban primary school settings. A quantitative correlational research design was adopted, with data collected from 450 respondents (350 parents and 100 teachers) across urban primary schools in Kuala Lumpur, Penang, and Johor Bahru using a structured online questionnaire. The instrument demonstrated strong internal reliability across all subscales (Cronbach's  $\alpha$  ranged from 0.75 to 0.88). Data were analysed through descriptive statistics, Pearson correlation, and multiple regression using IBM SPSS Statistics Version 29. The findings revealed statistically significant positive correlations between all six dimensions of parental involvement and student behaviour, with Parenting ( $r = 0.52, p < 0.01$ ) and Learning at Home ( $r = 0.50, p < 0.01$ ) emerging as the strongest associates. Multiple regression analysis confirmed Parenting ( $\beta = 0.30, p < 0.001$ ) and Learning at Home ( $\beta = 0.21, p < 0.001$ ) as the most influential predictors, while Decision-Making and Community Collaboration did not contribute significantly to the regression model ( $R^2 = 0.46, F(6, 443) = 38.74, p < 0.001$ ). The findings extend Epstein's framework, Bronfenbrenner's ecological systems theory, and Bandura's social learning theory by demonstrating the salience of proximal home-based engagement under conditions of urban time pressure. The study offers theoretical, practical, and policy implications for strengthening family and school partnerships in urban Malaysia and recommends micro-engagement strategies tailored to working parents.

**Keywords:** Parental Involvement, Student Behaviour, Urban Primary Schools, Epstein's Framework, Malaysia, Family and School Partnership

## Introduction

Education is widely recognised as a shared enterprise involving the school, the family, and the wider community. Among these stakeholders, parents occupy a uniquely formative position because their day-to-day engagement shapes the values, habits, and behavioural dispositions that children carry into the classroom (Epstein, 2018; Hornby & Blackwell, 2018). Decades of empirical scholarship affirm that when parents are actively engaged in their children's learning, students are more likely to demonstrate discipline, motivation, social cooperation, and respect for authority, alongside stronger academic outcomes (Jeynes, 2018; Wilder, 2014). Conversely, when parental engagement is sporadic or absent, children become more vulnerable to disciplinary problems, disengagement, and poor adjustment to school life (Caridade, Sousa, & Dinis, 2020; Fan & Chen, 2001). The strength of this evidence base, however, raises a more demanding question: how does parental engagement translate into practice when families operate under conditions of acute structural pressure, as is increasingly the case in rapidly urbanising middle-income societies? It is this question that motivates the present inquiry into urban Malaysia.

Within Malaysia, the importance of family and school partnerships has been formally embedded in national education policy. The Malaysia Education Blueprint 2013–2025 explicitly identifies parental and community engagement as one of eleven strategic shifts required to strengthen student outcomes (Ministry of Education Malaysia, 2013). Mechanisms such as the Parent–Teacher Association (Persatuan Ibu Bapa dan Guru, PIBG) and the Parent Support Group (Kumpulan Sokongan Ibu Bapa, KSIB) operationalise this aspiration by formalising parental contributions to school governance, volunteering, and home-based reinforcement (Kamal, Masnan, & Hashim, 2022; Kamal & Hashim, 2021). Despite these structural provisions, evidence from urban districts indicates that translating policy into consistent practice remains uneven, particularly because urban parents face long working hours, demanding commutes, and competing socio-economic pressures (Saiful Adli, Fauzi, Marzuki, Balang, & Ramli, 2024; Shanmugam, Tan, & Abdullah, 2022).

These structural pressures are most concentrated in the urban primary school context, which therefore warrants particular scrutiny. Malaysian cities such as Kuala Lumpur, Penang, and Johor Bahru host highly heterogeneous student populations whose behavioural profiles are shaped by intersecting cultural, linguistic, and economic forces (Hashim & Mahmud, 2020). Urban classrooms also tend to be larger, teacher workloads heavier, and home and school communication channels more strained (Lo & Yasin, 2023). These conditions amplify both the need for, and the difficulty of, sustained parental involvement. Although a growing number of Malaysian studies acknowledge the link between parental involvement and child outcomes, most have focused on academic achievement rather than behavioural development, and few have systematically tested all six dimensions of Epstein's framework simultaneously within a single urban sample (Kamal, Masnan, & Hashim, 2023; Lo & Abdullah, 2021).

Against this backdrop, the present study addresses three research questions. First, what is the level of parental involvement among parents of urban primary school children across the six Epstein dimensions? Second, to what extent is each dimension of parental involvement associated with student behaviour? Third, which dimensions emerge as the strongest unique predictors of student behaviour when all six are examined simultaneously? The study is

theoretically anchored in Epstein's (2018) typology of involvement, complemented by Bronfenbrenner's (1979) ecological systems theory and Bandura's (1986) social learning theory, both of which clarify how proximal family contexts shape behavioural outcomes through modelling, reinforcement, and mesosystemic linkages.

The novelty of this study lies in being the first to integrate all six Epstein dimensions into a single predictive model of student behaviour within an urban Malaysian sample, and in showing how structural conditions of urban life redistribute the explanatory weight across those dimensions. On this basis, the study contributes to the social sciences in three distinct ways. First, it advances the theoretical conversation on family and school partnership by demonstrating that Epstein's typology, although cross-culturally portable, is contextually weighted, with proximal microsystemic engagement assuming disproportionate behavioural salience in time-pressured urban ecologies. Second, it extends Bronfenbrenner's ecological systems theory and Bandura's social learning theory by providing empirical evidence on how mesosystemic strain in urban Malaysia channels behavioural reinforcement primarily through the home microsystem, thereby enriching social-science scholarship on the interaction between structural constraint and proximal socialisation. Third, it produces dimension-specific predictive evidence that informs not only educational practice but also broader policy debates on family, work, and child development in rapidly urbanising societies. The remainder of the paper is organised as follows: Section 2 reviews the relevant literature; Section 3 presents the methodology; Section 4 reports the results; Section 5 discusses the findings in light of prior research; and Section 6 concludes with implications, limitations, and directions for future research.

## **Literature Review**

### *Theoretical Foundations*

Three complementary theoretical perspectives frame this study. First, Epstein's (2018) typology of parental involvement identifies six dimensions through which families participate in children's education: parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community. Each dimension constitutes a distinct yet interrelated channel through which parents influence children's school experiences, and the framework has been used extensively in cross-cultural research (Boonk, Gijssels, Ritzen, & Brand-Gruwel, 2018; Epstein, 2018).

Second, Bronfenbrenner's (1979) ecological systems theory situates child development within nested environmental systems. The microsystem (family and classroom) exerts the most immediate influence, while the mesosystem, comprising the linkages between home and school, moderates how proximal influences are transmitted. When the home and school mesosystem is strong, behavioural reinforcement becomes consistent across settings; when it is weak, children may receive contradictory expectations that disrupt self-regulation (Bronfenbrenner & Morris, 2006).

Third, Bandura's (1986) social learning theory explains how children acquire behaviour through observation, imitation, and reinforcement of significant adults. Parents who model self-discipline, respectful communication, and engagement with learning provide behavioural templates that children internalise. Together, these three perspectives explain why parental involvement should not be treated as a unitary construct but rather as a multidimensional set

of practices that operate through distinct psychological and ecological pathways (Boonk et al., 2018; Wilder, 2014).

### *Conceptualising Parental Involvement and Student Behaviour*

Parental involvement refers to the active participation of parents in the multiple facets of their children's education, including academic supervision, behavioural guidance, communication with teachers, and engagement in school life (Epstein, 2018; Goodall & Montgomery, 2014). Recent literature distinguishes between involvement, defined as the visible activities parents undertake, and engagement, which connotes a deeper partnership and shared responsibility with the school (Goodall & Montgomery, 2014; Ismail et al., 2024). Student behaviour, in turn, is conceptualised through observable indicators such as classroom discipline, cooperation with peers and teachers, respect for authority, and motivation to learn (Caridade et al., 2020; Fan & Chen, 2001). These constructs are mutually reinforcing: structured home environments tend to cultivate self-regulation, which then transfers into the classroom as compliant, motivated, and pro-social conduct (Pinquart, 2017).

### *Global Empirical Synthesis*

International meta-analytic evidence has consistently established a positive association between parental involvement and children's behavioural and academic outcomes. Jeynes (2018) and Wilder (2014) reported moderate but stable effect sizes across primary and secondary settings, with home-based involvement and parental expectations emerging as the most robust predictors. Boonk and colleagues (2018), in a comprehensive review of seventy-five empirical studies, concluded that reading at home, dialogic engagement, and parental aspirations exert the strongest effects on student outcomes, while school-based volunteering shows weaker and more variable effects. Caridade et al. (2020) further demonstrated that parental involvement mediates the relationship between school climate and student behavioural problems, indicating that parents are not peripheral but central agents in behavioural regulation.

Behaviour-specific findings reinforce this pattern. Studies of disciplinary outcomes have linked low parental monitoring with increased classroom disruption and absenteeism (Al-Harthi & Al-Khathami, 2021; Hill & Tyson, 2009). Conversely, structured parenting practices, including predictable routines, clear expectations, and warm but firm supervision, are associated with stronger emotional self-regulation, fewer externalising problems, and higher motivation (Pinquart, 2017). These global patterns provide the empirical baseline against which the present Malaysian findings can be benchmarked.

### *Malaysian Literature and Policy Context*

Within Malaysia, parental involvement is institutionalised through the PIBG and KSIB structures, which the Ministry of Education positions as instruments for community engagement, parent training, and school governance (Kamal, Masnan, & Hashim, 2022; Ministry of Education Malaysia, 2013). A systematic review by Kamal, Masnan, and Hashim (2023) of Malaysian primary-level studies concluded that urban parents tend to hold high educational aspirations but report limited time for active involvement, and that home-based practices are the most consistent predictors of positive school behaviour. Lo and Abdullah (2021) found that regular homework monitoring and clear behavioural expectations correlated with better teacher-rated classroom conduct among urban primary pupils, while

Shanmugam et al. (2022) documented that the principal barriers to parental involvement in Malaysian urban schools were structural rather than attitudinal. Complementary evidence from Malaysian classroom contexts further suggests that the pedagogical environment children encounter at school, including the use of interactive and multimedia teaching practices, mediates how home-based involvement translates into observable engagement and behaviour (Kamrozzaman, Ab Rahim, & Apendi, 2023).

Important methodological gaps remain in this body of work. Most Malaysian studies rely on cross-sectional, single-informant designs and rarely employ standardised behavioural instruments such as the Strengths and Difficulties Questionnaire or the Child Behavior Checklist (Abdullah & Tan, 2020; Lo & Abdullah, 2021). Few studies test the full Epstein typology simultaneously, and even fewer differentiate the relative predictive weight of each dimension within urban contexts. The present study addresses these gaps by deploying a multi-dimensional questionnaire covering all six Epstein domains and triangulating parent and teacher reports across three urban districts.

### *Moderators and Contextual Factors in Urban Settings*

Urban Malaysian families operate within a distinct ecology that moderates parental involvement. Long working hours, dual-income households, irregular shift work, and lengthy commutes constrain parents' availability for school activities (Saiful Adli et al., 2024). Multi-ethnic and multi-lingual family arrangements, which often involve extended kin in childcare, can both broaden support and produce inconsistent disciplinary expectations across caregivers (Ismail et al., 2024). Digital media exposure adds further complexity: urban children navigate online peer cultures that may erode school engagement unless parents possess the digital literacy to mediate them (Ahmad & Wilkins, 2023; Mohamed, Masnan, & Lu, 2024). At the school level, large class sizes and heavy teacher workloads weaken home and school communication, fracturing the mesosystemic linkages through which behavioural reinforcement is supposed to flow (Lo & Yasin, 2023).

### **Conceptual Framework and Hypotheses**

Drawing on Epstein's (2018) framework, Bronfenbrenner's (1979) ecological systems theory, and Bandura's (1986) social learning theory, the study posits parental involvement, operationalised through the six Epstein dimensions, as the independent variable, and student behaviour, comprising discipline, cooperation, respect for authority, and motivation to learn, as the dependent variable. Three hypotheses are tested:

**H1:** Each of the six dimensions of parental involvement is significantly and positively correlated with student behaviour in urban primary schools.

**H2:** When examined jointly, the six dimensions of parental involvement explain a significant proportion of the variance in student behaviour.

**H3:** Home-based dimensions (parenting and learning at home) are stronger unique predictors of student behaviour than school-based dimensions (communicating, volunteering, decision-making, and collaborating with the community).

### **Methodology**

#### *Research Design*

This study adopted a quantitative correlational research design to examine the relationships between the six dimensions of parental involvement and student behaviour. A

correlational design is appropriate when the research aim is to quantify the magnitude and direction of associations among naturally occurring variables without manipulation (Creswell & Creswell, 2018; Lee, 2022). The design also allowed multiple independent variables to be assessed simultaneously through multiple regression, providing both descriptive and inferential evidence relevant to the research questions.

### *Population and Sampling*

The target population comprised parents and teachers of pupils enrolled in urban primary schools across three Peninsular Malaysian districts: Kuala Lumpur, Penang, and Johor Bahru. These districts were selected purposively because they capture the heterogeneity of urban Malaysia in terms of ethnic composition, socio-economic status, and household structure. A stratified random sampling procedure was applied, with strata defined by district (three levels) and respondent type (parent or teacher), to ensure proportional representation. Following Krejcie and Morgan's (1970) sample-size determination table, a total of 450 respondents were recruited, comprising 350 parents and 100 teachers. This sample size exceeds the minimum threshold for multiple regression with six predictors (Hair, Black, Babin, & Anderson, 2019), supporting statistical power and generalisability within the studied urban contexts.

The dual-respondent design served a methodological purpose: parents reported on their own involvement practices (the independent variable), while teachers and parents jointly reported on student behaviour (the dependent variable). For each pupil, behavioural ratings provided by parents were averaged with the corresponding class teacher's ratings to reduce single-informant bias and enhance construct validity (Pinquart, 2017).

### *Research Instrument*

Data were collected using a structured questionnaire developed from validated instruments and adapted to the Malaysian urban primary school context. The questionnaire comprised three sections. Section A captured demographic information including gender, age, educational level, and teaching experience. Section B measured parental involvement across Epstein's six dimensions (parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community) using 24 items rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Section C assessed student behaviour through 10 items reflecting discipline, cooperation, respect for authority, and motivation to learn, also rated on a five-point Likert scale. Items were adapted from Epstein's School and Family Partnership Survey and behavioural indicators consistent with the Strengths and Difficulties Questionnaire framework (Epstein, 2018; Goodman, 1997).

### *Validity and Reliability*

Content validity was established through expert review. Two academics specialising in educational psychology and one experienced primary school administrator independently evaluated the instrument for clarity, cultural appropriateness, and alignment with theoretical constructs. Their feedback informed minor wording revisions and the deletion of two ambiguous items. Construct validity was supported by anchoring the items in Epstein's established framework and validated behavioural indicators. A pilot study was conducted with 30 respondents drawn from a comparable urban district (and excluded from the final sample) to assess clarity, completion time, and internal consistency. Cronbach's alpha values

exceeded the 0.70 threshold recommended by Hair et al. (2019) for all subscales, indicating acceptable to good reliability (Table 2 in Section 4).

### *Data Collection Procedures*

Following ethical clearance and institutional permission from school authorities, the questionnaire was distributed online through WhatsApp, Telegram, and school learning management systems. Participation was voluntary, and informed consent was obtained electronically before respondents accessed the questionnaire. No personally identifying information was collected, and responses were stored on encrypted Google Sheets accessible only to the researchers. Data collection took place over six weeks. Of 510 questionnaires distributed, 450 valid responses were retained after removing incomplete and duplicate entries, yielding an overall response rate of approximately 88%.

### *Data Analysis*

Data were analysed using IBM SPSS Statistics Version 29. Descriptive statistics, including frequencies, percentages, means, and standard deviations, profiled the demographic characteristics and key variables. Reliability analysis using Cronbach's alpha confirmed scale internal consistency. Pearson product-moment correlations examined bivariate relationships between each dimension of parental involvement and student behaviour. Multiple regression analysis (entry method) tested the joint and unique predictive contribution of all six dimensions to student behaviour. Prior to inferential analyses, the assumptions of normality (skewness and kurtosis between -1 and +1), linearity, multicollinearity (variance inflation factor below 5; tolerance above 0.20), independence of residuals (Durbin–Watson between 1.5 and 2.5), and homoscedasticity were verified and met.

### *Ethical Considerations*

The research adhered to the ethical guidelines established by the Ministry of Education Malaysia and standard academic protocols on human-subject research. Participation was voluntary, withdrawal was permitted at any point without penalty, and anonymity was preserved through non-identifiable data collection. All data are stored securely and will be destroyed after the regulatory retention period. The study posed no foreseeable physical, psychological, or professional risk to participants.

## **Results**

### *Demographic Profile of Respondents*

Table 1 summarises the demographic profile of the 450 respondents. Among parents, 60% were female and 40% male, reflecting the typical maternal predominance observed in Malaysian school-engagement studies (Abdullah & Tan, 2020). The majority of parents (51.4%) were aged between 35 and 44 years, consistent with the modal age of parents whose children attend primary school. Most parents (57.1%) held a degree or higher qualification, an indicator of the relatively well-educated urban population. Among teachers, 65% were female and 35% male, while 50% had between 5 and 10 years of teaching experience, suggesting a sample with sufficient professional maturity to provide reliable judgements about pupil behaviour and parental engagement.

Table 1

*Demographic Profile of Respondents (N = 450)*

Variable	Category	Frequency	Percentage (%)
Gender (Parents)	Male	140	40.0
	Female	210	60.0
Age (Parents)	25 to 34	100	28.6
	35 to 44	180	51.4
	45 and above	70	20.0
Education Level (Parents)	Secondary	50	14.3
	Diploma or Certificate	100	28.6
	Degree and above	200	57.1
Gender (Teachers)	Male	35	35.0
	Female	65	65.0
Teaching Experience	Less than 5 years	20	20.0
	5 to 10 years	50	50.0
	More than 10 years	30	30.0

Note. Parent sample  $n = 350$ ; Teacher sample  $n = 100$ .

*Reliability of Measurement Scales*

Cronbach's alpha values for the seven subscales are reported in Table 2. All values exceeded the 0.70 threshold recommended by Hair et al. (2019), with student behaviour ( $\alpha = 0.88$ ) and learning at home ( $\alpha = 0.84$ ) demonstrating the highest internal consistency. These results confirm that the instrument was suitable for inferential analysis.

Table 2

*Internal Consistency of Measurement Scales*

Scale	Number of Items	Cronbach's $\alpha$
Parenting	5	0.82
Communicating	4	0.80
Volunteering	3	0.76
Learning at Home	5	0.84
Decision-Making	4	0.78
Community Collaboration	3	0.75
Student Behaviour	10	0.88

Note.  $N = 450$ . Threshold for acceptable reliability set at  $\alpha \geq 0.70$  (Hair et al., 2019).

*Descriptive Statistics of Study Variables*

Table 3 reports the means and standard deviations for the seven study variables. Parents reported the highest engagement in Parenting ( $M = 4.12$ ,  $SD = 0.63$ ) and Learning at Home ( $M = 4.05$ ,  $SD = 0.68$ ), indicating sustained involvement in home-based practices such as supervising routines, monitoring homework, and supporting children's learning. The lowest scores were observed for Community Collaboration ( $M = 3.40$ ,  $SD = 0.77$ ) and Decision-Making ( $M = 3.50$ ,  $SD = 0.80$ ), suggesting that engagement in school governance and community partnerships remains comparatively limited among urban parents. Student Behaviour received a relatively high mean rating ( $M = 4.00$ ,  $SD = 0.60$ ), indicating that respondents generally perceived pupils as displaying disciplined, cooperative, and motivated conduct. Skewness and kurtosis values for all variables fell within the acceptable range of  $\pm 1$ , supporting the assumption of normality required for parametric inference.

Table 3

*Descriptive Statistics for Study Variables (N = 450)*

Variable	Mean	SD	Min	Max
Parenting	4.12	0.63	2.5	5.0
Communicating	3.95	0.70	2.0	5.0
Volunteering	3.60	0.85	1.5	5.0
Learning at Home	4.05	0.68	2.0	5.0
Decision-Making	3.50	0.80	1.5	5.0
Community Collaboration	3.40	0.77	1.0	5.0
Student Behaviour	4.00	0.60	2.5	5.0

*Note. All variables measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).*

*Pearson Correlation Analysis*

Pearson product-moment correlations were computed to examine bivariate associations among all study variables (Table 4). All six dimensions of parental involvement demonstrated statistically significant positive correlations with student behaviour ( $p < 0.01$ ). The strongest correlations were observed for Parenting ( $r = 0.52$ ) and Learning at Home ( $r = 0.50$ ), followed by Communicating ( $r = 0.45$ ) and Volunteering ( $r = 0.38$ ). Decision-Making ( $r = 0.32$ ) and Community Collaboration ( $r = 0.30$ ) demonstrated comparatively weaker, though still significant, associations. The inter-correlations among the six predictor dimensions ranged from  $r = 0.28$  to  $r = 0.61$ , all below the 0.80 threshold that would indicate problematic multicollinearity. These results provide initial empirical support for Hypothesis 1, namely, that all six dimensions of parental involvement are positively associated with student behaviour.

Table 4

*Pearson Correlation Matrix among Study Variables (N = 450)*

Variable	1	2	3	4	5	6	7
1. Parenting	1.00						
2. Communicating	0.55**	1.00					
3. Volunteering	0.41**	0.48**	1.00				
4. Learning at Home	0.61**	0.50**	0.39**	1.00			
5. Decision-Making	0.34**	0.42**	0.45**	0.31**	1.00		
6. Community Collaboration	0.30**	0.36**	0.43**	0.28**	0.51**	1.00	
7. Student Behaviour	0.52**	0.45**	0.38**	0.50**	0.32**	0.30**	1.00

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

#### Multiple Regression Analysis

Multiple regression analysis was conducted to determine the joint and unique predictive contribution of the six parental involvement dimensions to student behaviour (Table 5). The overall model was statistically significant,  $F(6, 443) = 38.74$ ,  $p < 0.001$ , with the six predictors collectively explaining 46% of the variance in student behaviour ( $R^2 = 0.46$ , adjusted  $R^2 = 0.45$ ). The Durbin–Watson statistic (1.92) confirmed the independence of residuals, and variance inflation factors for all predictors fell below 2.5, ruling out problematic multicollinearity. Examination of the standardised regression coefficients revealed that Parenting ( $\beta = 0.30$ ,  $p < 0.001$ ) was the strongest unique predictor of student behaviour, followed by Learning at Home ( $\beta = 0.21$ ,  $p < 0.001$ ), Communicating ( $\beta = 0.16$ ,  $p = 0.003$ ), and Volunteering ( $\beta = 0.11$ ,  $p = 0.045$ ). In contrast, Decision-Making ( $\beta = 0.09$ ,  $p = 0.110$ ) and Community Collaboration ( $\beta = 0.07$ ,  $p = 0.230$ ) did not reach statistical significance once the other dimensions were controlled. These results support Hypotheses 2 and 3.

Table 5

*Multiple Regression Predicting Student Behaviour from Parental Involvement Dimensions*

Predictor	B	SE B	$\beta$	t	Sig.	VIF
Parenting	0.28	0.05	0.30	5.60	< 0.001**	2.18
Learning at Home	0.22	0.06	0.21	3.67	< 0.001**	2.31
Communicating	0.15	0.05	0.16	3.00	0.003**	1.94
Volunteering	0.10	0.05	0.11	2.00	0.045*	1.62
Decision-Making	0.08	0.05	0.09	1.60	0.110	1.78
Community Collaboration	0.06	0.05	0.07	1.20	0.230	1.55

Note.  $R^2 = 0.46$ ; Adjusted  $R^2 = 0.45$ ;  $F(6, 443) = 38.74$ ,  $p < 0.001$ ; Durbin–Watson = 1.92. \* $p < 0.05$ ; \*\* $p < 0.01$ .

### Summary of Hypothesis Testing

The results provide strong empirical support for all three hypotheses. Hypothesis 1 was supported, as each of the six dimensions of parental involvement showed a significant positive correlation with student behaviour. Hypothesis 2 was supported, with the regression model explaining 46% of the variance in student behaviour. Hypothesis 3 was also supported, as the home-based dimensions of Parenting and Learning at Home emerged as the strongest unique predictors, while Decision-Making and Community Collaboration did not contribute significantly when other dimensions were controlled. These findings carry important theoretical and practical implications, which are discussed in the following section.

### Discussion

The present study examined how the six dimensions of Epstein's parental involvement framework relate to student behaviour in urban Malaysian primary schools. Three principal findings emerged: first, urban parents are most active in home-based dimensions of involvement and least active in decision-making and community collaboration; second, all six dimensions are positively correlated with student behaviour, but with markedly different magnitudes; and third, Parenting and Learning at Home are the strongest unique predictors of student behaviour, while Decision-Making and Community Collaboration do not contribute significantly once the other dimensions are accounted for. These findings are now discussed in dialogue with international and Malaysian literature.

#### *The Salience of Home-Based Involvement*

The dominance of Parenting ( $\beta = 0.30$ ) and Learning at Home ( $\beta = 0.21$ ) as predictors of student behaviour is consistent with global meta-analytic evidence. Jeynes (2018) demonstrated that parental expectations, structured home environments, and reading-based engagement consistently produce moderate-to-strong effects on student outcomes, while school-based volunteering shows weaker effects. Boonk and colleagues (2018), in their large-scale review, similarly concluded that variables operating most proximally, such as daily routines, dialogic interaction, and parental aspirations, generate the most reliable behavioural and academic gains. Wilder (2014) reached a parallel conclusion, noting that parental involvement effects are strongest when measured through children's perceptions of parental engagement at home. The  $\beta$  values obtained in the present study (0.30 for Parenting and 0.21 for Learning at Home) align closely with the standardised effect sizes reported in these international syntheses, suggesting that the Malaysian urban evidence is broadly consistent with the global pattern.

These convergent findings can be explained through Bronfenbrenner's (1979) ecological systems theory. The home represents the most proximal microsystem and therefore exerts the most direct shaping influence on children's behavioural self-regulation. When parents establish predictable routines, monitor homework, and respond consistently to behavioural challenges, children internalise these scripts and reproduce them in the classroom. Bandura's (1986) social learning theory complements this account: children continuously observe and model parental behaviour, so the daily texture of home life, rather than the occasional parental visit to school, is what most powerfully shapes self-discipline, motivation, and pro-social conduct. The Malaysian results therefore extend rather than challenge the established global pattern.

Within the Malaysian context specifically, the findings echo Abdullah and Kamal (2022), who reported that home-based parental support significantly predicted student academic engagement and behaviour in urban schools. Lo and Abdullah (2021) similarly found that parental homework supervision was the most consistent correlate of behavioural and academic outcomes among urban Malaysian primary pupils. More recent work by Kamal et al. (2023) suggests that home-based engagement in urban Malaysia operates as a buffer against the behavioural risks introduced by extended screen time and peer-mediated digital culture. Taken together, these studies converge on the conclusion that home-based involvement is not merely one dimension among six; it is, functionally, the keystone dimension for behavioural development in the Malaysian urban context.

#### *Communication and Volunteering as Mid-Range Contributors*

Communicating ( $\beta = 0.16$ ) and Volunteering ( $\beta = 0.11$ ) made smaller but statistically significant contributions to student behaviour. This pattern aligns with Hill and Tyson's (2009) meta-analysis of parental involvement, which found that direct school-based involvement, such as parent volunteering or attendance at school events, showed weaker effects on student outcomes than home-based academic socialisation. The present finding suggests that while parent and teacher communication and visible parental presence at school remain valuable, their behavioural impact appears to be partially mediated through the consistency of home routines that those communications and visits reinforce.

In urban Malaysian settings, the effectiveness of communication is also shaped by the medium of contact. Shanmugam, Kalimuthu, Lai, and Chung (2022) and Ahmad and Wilkins (2023) report that informal, asynchronous channels, particularly WhatsApp groups and school-managed messaging platforms, significantly improve parent and teacher information flow and enable rapid response to behavioural incidents. The growth of digital communication tools may therefore explain why Communicating retained statistical significance in the present study: parents who would struggle to attend physical meetings can still maintain steady, low-friction contact with teachers from their workplaces. Schools that invest in reliable digital communication infrastructure are likely to amplify this dimension's behavioural pay-off (Mohamed, Masnan, & Lu, 2024). Subject-specific evidence from Malaysian classrooms further suggests that home-supported affective engagement, including parental encouragement, attitudes, and emotional support, is associated with stronger student motivation and learning outcomes, particularly under disrupted learning conditions (Ab Rahim, Kamrozzaman, Taha, & Wahidin, 2023).

#### *Decision-Making and Community Collaboration as Non-Significant Predictors*

Perhaps the most theoretically interesting finding is the failure of Decision-Making and Community Collaboration to contribute uniquely to student behaviour once the other dimensions were controlled. This result should not be interpreted as evidence that these dimensions are unimportant in principle; their bivariate correlations with student behaviour were positive and statistically significant. Rather, the result reflects the structural conditions of urban Malaysian life. As Saiful Adli, Fauzi, Marzuki, Balang, and Ramli (2024) have documented, urban parents face acute time constraints arising from long working hours, dual-income arrangements, irregular shift work, and prolonged commutes. These constraints suppress engagement in school governance and community partnerships, with the

consequence that variance in these dimensions is too compressed to generate strong predictive effects.

Shanmugam, Tan, and Abdullah (2022) similarly document that urban parental involvement barriers are predominantly logistical and structural rather than attitudinal: parents value participation in school governance but cannot afford the time it requires. Lo and Yasin (2023) extend this argument by showing that the absence of meaningful school and community partnership programmes in many urban districts further restricts the channels through which parents could contribute to decision-making. These findings carry an important policy message: simply exhorting parents to participate in school governance is unlikely to be effective unless schools redesign participation channels to accommodate the temporal realities of urban working life.

It is also worth noting that the global literature on parental involvement and decision-making produces mixed findings. Some studies, particularly in Western contexts where parent advocacy has stronger institutional traction, report meaningful effects of governance participation on school climate and student outcomes (Boonk et al., 2018; Goodall & Montgomery, 2014). However, in collectivist-leaning societies, where deference to school authority is more normative, decision-making participation tends to be lower in frequency and weaker as a behavioural predictor (Ismail et al., 2024). The present finding is therefore consistent with what would be theoretically expected within Malaysia's cultural and structural ecology.

#### *Cross-Cultural Comparison and Theoretical Contributions*

A useful way to interpret the findings is to compare them with parallel evidence from other cultural contexts. In the United States and Europe, school-based involvement and parent advocacy carry stronger institutional weight, partly because school governance structures formally accommodate parent voice (Goodall & Montgomery, 2014; Hornby & Blackwell, 2018). In East and Southeast Asian contexts, by contrast, deference to school authority and intensive home-based academic socialisation are more culturally normative (Ismail et al., 2024; Xie & Jamaludin, 2025). The present Malaysian findings sit firmly within this Asian pattern, with home-based dimensions dominating and governance-related dimensions playing only a peripheral predictive role. This cross-cultural alignment strengthens confidence that the observed pattern is not idiosyncratic but reflects deeper cultural and structural regularities.

The study contributes to theory in three ways. First, it confirms the cross-cultural applicability of Epstein's (2018) framework while demonstrating that the relative weight of each dimension is context-dependent. The framework's six dimensions remain a valid conceptual map, but in time-pressured urban environments the home-based dimensions carry disproportionate behavioural weight. Second, the study reinforces Bronfenbrenner's emphasis on the primacy of the proximal microsystem: when meso-level home and school connections weaken under urban pressure, the family microsystem becomes the dominant pathway through which behavioural reinforcement is transmitted (Bronfenbrenner & Morris, 2006). Third, the findings provide additional support for Bandura's social learning theory by demonstrating that the everyday modelling and reinforcement processes embedded in home

routines are stronger predictors of pro-social classroom behaviour than the more episodic engagement that occurs at the school gate.

### **Practical and Policy Implications**

The pattern of findings has clear implications for educators, school leaders, and policymakers. For schools, the priority should be on equipping parents to perform home-based engagement well rather than on maximising attendance at on-site events. Practical mechanisms include structured weekly learning planners, parent-friendly homework guidance, and short digital tutorials on managing children's behaviour and screen time. These resources operate on the very dimensions that the regression model has shown to matter most. Schools should also invest in stable digital communication channels that enable rapid teacher and parent dialogue without requiring parents to be physically present (Ahmad & Wilkins, 2023; Shanmugam et al., 2022). Where feasible, schools can also draw on multimedia and research-based pedagogical approaches to design accessible parent-facing resources, since such approaches have been shown to support learner engagement across diverse educational contexts (Kamrozzaman, Badusah, Ruzanna, & Norman, 2019).

For Decision-Making and Community Collaboration, the implication is structural rather than exhortatory. If schools wish parents to contribute to governance, they must redesign participation channels by enabling, for example, asynchronous voting, evening or weekend committee slots, and rotating micro-volunteering roles, so that participation becomes feasible within urban working schedules (Saiful Adli et al., 2024; Lo & Yasin, 2023). Without such redesign, even highly motivated parents will continue to be excluded from these dimensions by their work and commute constraints.

At the policy level, the findings support the strategic emphasis on parental engagement articulated in the Malaysia Education Blueprint 2013–2025 (Ministry of Education Malaysia, 2013), but they also suggest the need for a more differentiated approach. Rather than treating PIBG and KSIB primarily as governance and volunteering vehicles, the Ministry of Education could expand their remit to include systematic home-engagement support: parenting education modules, behavioural guidance materials in multiple languages, and digital parent literacy programmes. Investment in such home-facing infrastructure is likely to produce stronger behavioural returns than further intensification of school-based participation requirements (Kamal, Masnan, & Hashim, 2022; Kamal, Masnan, & Hashim, 2023).

### **Limitations of the Study**

Several limitations should be acknowledged. First, the cross-sectional design precludes strong causal inference; longitudinal designs are needed to clarify the developmental trajectory of parental involvement effects on behaviour (Pinquart, 2017). Second, although the dual-respondent design reduced single-informant bias, the reliance on self-reported and parent-reported behavioural data may still be subject to social desirability effects. Future research should incorporate direct classroom observation or validated multi-informant instruments such as the Strengths and Difficulties Questionnaire (Goodman, 1997). Third, the urban focus limits generalisability to rural and suburban contexts, where parental practices and school structures differ substantially. Fourth, the study did not examine moderators such as socio-economic status, parental ethnicity, or child age in detail; these would warrant

attention in future investigations. Despite these limitations, the convergence of the findings with international evidence and the methodological safeguards employed support the credibility of the conclusions drawn.

## Conclusion

This study set out to examine the relationship between the six dimensions of Epstein's parental involvement framework and student behaviour in urban Malaysian primary schools. Drawing on a sample of 450 parents and teachers from three urban districts and using descriptive, correlational, and regression analyses, the study generated three key findings. First, urban Malaysian parents are most actively engaged in home-based dimensions of involvement and least engaged in decision-making and community collaboration. Second, all six dimensions are positively associated with student behaviour, with Parenting ( $r = 0.52$ ) and Learning at Home ( $r = 0.50$ ) showing the strongest correlations. Third, multiple regression analysis identified Parenting ( $\beta = 0.30$ ) and Learning at Home ( $\beta = 0.21$ ) as the strongest unique predictors, while Decision-Making and Community Collaboration did not contribute significantly once other dimensions were controlled.

Interpreted through Epstein's framework, Bronfenbrenner's ecological systems theory, and Bandura's social learning theory, the results indicate that proximal home-based engagement is the dominant behavioural pathway in urban Malaysian primary schools. The findings reinforce international evidence on the primacy of home-based involvement while clarifying how urban contextual constraints, including time scarcity, work intensity, and structural barriers to school-level participation, shape the relative weight of each dimension. The study offers concrete guidance for educators, school leaders, and policymakers seeking to optimise family and school partnership under urban conditions: prioritise the home-engagement dimensions, invest in digital communication infrastructure, and redesign governance participation channels to fit working life.

This study makes three original contributions to knowledge. First, it provides the first integrated empirical test of all six Epstein dimensions as simultaneous predictors of student behaviour within a single urban Malaysian sample, thereby resolving a longstanding gap in the Malaysian parental involvement literature where prior studies have examined dimensions selectively or focused predominantly on academic rather than behavioural outcomes (Kamal, Masnan, & Hashim, 2023; Lo & Abdullah, 2021). Second, it advances theoretical understanding by demonstrating that Epstein's framework, while cross-culturally applicable, is contextually weighted: in time-pressured urban environments, the home-based microsystemic dimensions carry disproportionate behavioural salience, extending Bronfenbrenner's ecological model into the Malaysian urban education context. Third, it generates dimension-specific predictive evidence that moves beyond descriptive accounts of parental involvement levels to identify which forms of engagement produce the strongest independent behavioural effects, offering a more actionable evidence base for school leaders, district administrators, and national education policymakers than previous single-dimension or correlational-only designs have provided.

Future research should pursue longitudinal, multi-informant, and mixed-methods designs to test the developmental and causal hypotheses suggested here. Comparative studies across urban, suburban, and rural Malaysian schools would clarify the boundary conditions of the

present findings, and intervention studies should test the effectiveness of dimension-specific home-engagement programmes. In a national education system that explicitly identifies parental engagement as a strategic priority, the present study clarifies which forms of engagement matter most for behavioural development in urban primary schools and how those forms can be supported in ways that are practical, culturally responsive, and aligned with the realities of contemporary urban Malaysian family life.

### Declarations

**Conflict of Interest.** The authors declare no conflict of interest.

**Ethical Approval.** The study followed ethical procedures established by UNITAR International University. Informed consent was obtained from all individual participants prior to data collection.

**Data Availability.** The anonymised dataset that supports the findings of this study is available from the corresponding author upon reasonable request, subject to participant confidentiality.

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