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Parental Involvement and Academic Engagement in Children: The Mediating Role of Academic Self-Efficacy

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Abstract

Background and Objective: Academic engagement plays a central role in children's overall development, yet how parental involvement shapes students' self-efficacy and, in turn, their engagement still needs more empirical attention. This study examined whether academic self-efficacy mediates the relationship between parental involvement and academic engagement among upper elementary students in Neyshabur, Iran.
Methods and Materials: Using a correlational design, this study applied structural equation modeling (SEM) to data from upper elementary students in Nishapur during the 2021–2022 academic year (N=16,000). A sample of 375 students was selected through multi-stage cluster sampling based on Cochran's formula. Three validated instruments were used: Parental Involvement in Academic Activities Questionnaire, Student Self-Efficacy Scale, and the Academic Engagement Scale. Data were analyzed using descriptive statistics, Pearson correlation, and SEM in SPSS 20 and AMOS 24.
Results: All direct paths in the model were significant: parental involvement was positively related to both academic self-efficacy ($P < 0.001$) and academic engagement ($P < 0.001$), and academic self-efficacy was in turn positively related to academic engagement ($P < 0.001$). Bootstrapping further confirmed a significant indirect effect of parental involvement on academic engagement through academic self-efficacy ($P < 0.001$).
Conclusion: Parental involvement supports students' academic engagement both directly and by strengthening their academic self-efficacy. Programs aimed at increasing parental participation and building students' self-efficacy beliefs may therefore be an effective way to promote academic engagement and psychosocial wellbeing in primary school children.
Keywords: Parental Involvement; Academic Performance; Self Efficacy; Student Engagement; Child Development; Social Determinants of Health; Psychosocial Support Systems.

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Introduction

The overall wellbeing and progress of any society is closely tied to the strength of its education system (1). Schools are often seen as the primary institutions responsible for shaping students' academic success, but the role of the family, and particularly parental involvement, should not be underestimated (2). It is within the family that children first develop their personalities and values, and the experiences they have at home during early childhood carry lasting effects on their later behavior, relationships, and social adjustment (3).

Parental involvement in education has long been recognized as a valuable contributor to students' academic engagement and achievement (4). Yet research suggests that a considerable number of parents remain unaware of just how much their involvement matters for their children's education (5). Parental involvement is not only a personal right and a responsibility of families, but also a societal requirement. It is universally accepted that without an effective partnership between families and schools, high education levels expected from the community cannot be achieved (6).

Parental involvement covers a wide range of behaviors connected to a child's schooling, from communicating with teachers and helping with homework to tracking academic progress and building a supportive learning environment at home (7). When parents and schools work together, through joint planning, active participation in school life, and ongoing two-way communication, the resulting partnership strengthens the whole educational process. Schools that succeed tend to be the ones that make the most of parents' potential, working past barriers and negative attitudes to give families real opportunities to participate (8).

A substantial body of research has linked active parental involvement to a range of positive outcomes: higher achievement, better behavior, fewer disciplinary problems, and higher graduation rates (7).

Academic self-efficacy is one of the key variables that may help explain why parental involvement is linked to academic success. Academic self-efficacy (ASE), the belief in one’s ability to succeed in academic tasks, plays a crucial role in student motivation, learning, and performance (9). Students with high academic self-efficacy are more capable of handling learning tasks, willing to face academic challenges (10).

Academic engagement is another factor that research has repeatedly tied to student success. It is a multidimensional construct that includes active effort and participation (behavioral engagement), a sense of interest and belonging (emotional engagement), and the use of deeper cognitive and metacognitive strategies (cognitive engagement) (11). Engaged students tend to find learning meaningful, enjoy the process, and put in real time and effort toward academic goals (12).

Taken together, these findings point to academic self-efficacy as a possible mediator linking parental involvement to academic engagement; in other words, parental involvement may boost students' engagement in academic work partly by strengthening their confidence in their own academic abilities. The present study was designed to test this idea, guided by the following research question: Does academic self-efficacy mediate the relationship between parental involvement and academic engagement among upper elementary school students?

Methods and Materials

Study Design

This study used an applied, correlational design to explore the relationships between parental involvement, academic self-efficacy, and academic engagement. Structural Equation Modeling (SEM) was

chosen to test the proposed theoretical model and examine self-efficacy's mediating role, since it allows several regression paths to be assessed at once along with an overall test of model fit.

Participants and Sampling

The population for this study included all students in grades 3 through 6 (upper elementary) in the Nishapur educational district during the 2021–2022 academic year, roughly N = 16,000 students. A multi-stage cluster sampling approach was used to obtain a representative sample: schools were first grouped by criteria such as socioeconomic status or geographic zone, and specific classrooms were then selected from within these groups. Sample size was calculated with Cochran's formula, allowing for a 5% margin of error at a 95% confidence level, which yielded a final sample of n = 375 students. Prior to data collection, informed consent was obtained from school administrators and the parents/guardians of all participating students. Participants were assured of the confidentiality and anonymity of their responses

Instrumentation

Data were gathered through three validated self-report questionnaires, all administered using a 5-point Likert-type scale.

1. Parental Involvement in Academic Activities Questionnaire (Shakari, 2013): used to gauge how involved parents were in their child's education. This instrument consists of 15 items. Internal consistency in this sample was high (Cronbach's alpha = 0.86) (13)

2. Student Self-Efficacy Scale (Jenks & Morgan, 1999): measured students' beliefs about their capacity to handle academic tasks, focusing on areas such as aptitude, context, and effort across30 items. Reliability in this study was confirmed (Cronbach's alpha =0.82) (14).

3. Academic Engagement Scale (Reeve, 2013): assessed the depth of students' involvement in school activities across behavioral, agentic, cognitive, and emotional dimensions. This scale consists of 17 items and yielded a Cronbach's alpha of [0.92] in the current sample (15).

Data Analysis

Analysis proceeded in two stages using IBM SPSS Statistics (version 20) and IBM SPSS AMOS (version 24). Descriptive statistics (means and standard deviations) were first calculated to characterize the sample, and Pearson correlations were computed to examine initial associations among the variables. Structural Equation Modeling was then used to test the full model and the mediating role of academic self-efficacy. Model fit was evaluated using several indices, including chi-square, the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). The significance of the indirect (mediation) effect was tested using a bootstrapping procedure with 5000 resamples.

Results

After data collection, one participant was dropped due to multivariate outlier values, leaving a final sample of 374 students for analysis. Of these, 52.8% were girls and 47.2% were boys, with the largest share of participants in fourth grade (39.2%) and the smallest in sixth grade (25.1%).

Most fathers (65.3%) and mothers (67.2%) had a high school diploma or less. Descriptive statistics for the main study variables appear in Table 1.

Table 1: Descriptive indices of research variables

Variable	N	Mean±SD
Parental Involvement	374	4.1±0.5
Academic Self-Efficacy	374	3.4±0.3
Academic Engagement	374	5.8±0.6

The mean scores for parental involvement (4.1 out of 5) and academic engagement (5.8 out of 7) were relatively high, while the mean score for academic self-efficacy (3.4 out of 4) indicated a relatively favorable level.

Table 2: Pearson correlation matrix between variables

Variables	1	2	3
Parental Involvement	1		
Academic Self-Efficacy	0.287**	1	
Academic Engagement	0.367**	0.439**	1

Variable normality was checked with the Kolmogorov–Smirnov test, which was non-significant for all three variables ($P > 0.05$), indicating a normal distribution. Multicollinearity was not a concern: the variance inflation factor (VIF) for the predictor variables was 1.089 (below the threshold of 2), and the tolerance value was 0.918 (above the 0.50 threshold). Table 2 presents the results of the Pearson correlation analysis.

All three variable pairs were positively and significantly correlated at the 0.01 level. Parental involvement was positively associated with academic engagement ($r = 0.367$), and academic self-efficacy was likewise positively associated with academic engagement ($r = 0.439$).

The proposed model showed an excellent fit to the observed data based on several goodness-of-fit indices (GFI = 1, NFI = 1, CFI = 1, IFI = 1.003). Direct path coefficients are shown in Table 3.

Table 3: Direct path coefficients of the structural model

Path	Standard coefficient (β)	Critical ratio (CR)	Significance (P)	Conclusion
Parental involvement → Academic self-efficacy	0.287	5.777	< 0.001	Confirmed
Academic self-efficacy → Academic engagement	0.364	7.800	< 0.001	Confirmed
Parental involvement → Academic engagement	0.263	5.647	< 0.001	Confirmed

Parental involvement and academic self-efficacy together accounted for 25.6% of the variance in academic engagement ($R^2 = 0.256$). Table 4 presents the bootstrap results for the mediating effect.

Table 4: Bootstrap test results for the indirect effect (mediator)

Indirect path	Standard coefficient (β)	95% CI (Lower – Upper)	P
Parental involvement → self-efficacy → academic engagement	0.104	0.099 – 0.205	< 0.001

Since the confidence interval did not include zero, the indirect effect was statistically significant. With both the direct effect ($\beta = 0.263$) and the indirect effect ($\beta = 0.104$) reaching significance, academic self-efficacy was confirmed as a mediator between parental involvement and academic engagement, supporting the study's main hypothesis.

Discussion

This study set out to examine whether academic self-efficacy mediates the relationship between parental involvement and students' academic engagement. The proposed model fit the data well, and every hypothesis was supported. The central finding was confirmation of this mediating

role: parental involvement appears to shape students' academic engagement not only directly, but also indirectly, by reinforcing their belief in their own academic abilities.

Put differently, parents who take an active role in their children's education tend to build a sense of competence and confidence in their children through encouragement, support, and opportunities for successful learning experiences (16). These self-efficacy beliefs then act as a strong motivational driver, pushing students to approach schoolwork with more enthusiasm, effort, and persistence, and to become more genuinely engaged in learning (11). This pattern lines up with earlier work by Amani et al. (2022), who found a similar mediating role for motivational variables, and Yousefi and Azhdari (2021), who reported a comparable mediating effect for self-efficacy (17-18). Together, these findings suggest that self-efficacy functions as a key mechanism through which family support gets translated into students' psychological and motivational resources. Practically speaking, this implies that boosting academic engagement calls for an approach that addresses both meaningful parental involvement and stronger self-efficacy beliefs at the same time.

As expected, parental involvement was positively and significantly related to students' academic self-efficacy ($r = 0.287$), a result that fits well with Bandura's social cognitive theory (1997) and with earlier work by Ghaninejad (2013), Onabamiro et al. (2013), and Fan and Williams (2010) (7,16,19). Several mechanisms likely underlie this relationship. Verbal encouragement and positive reinforcement, as one of the four core sources of self-efficacy, help parents build their children's confidence in their own academic abilities. Helping with homework and creating a supportive space for studying at home gives children more chances to succeed academically, which strengthens mastery experiences, another key source of self-efficacy. Parents also model positive attitudes toward learning, offering vicarious experiences that reinforce these beliefs further. And by easing academic stress and anxiety, parents support their children's emotional and physiological wellbeing. All of these pathways likely work together, meaning greater parental involvement strengthens self-efficacy through multiple routes at once.

Another notable finding was the fairly strong, positive relationship between academic self-efficacy and academic engagement ($r = 0.439$, $\beta = 0.364$), consistent with prior research by Gholamali Lavasani et al. (2009), Samavi et al. (2015), Razmand and Khalkhali (2015), and Olivier et al. (2019) (10,20,21). Social cognitive theory offers a straightforward explanation: students who trust their ability to complete academic tasks are more motivated to take part in learning, less likely to be discouraged by setbacks, and more persistent in working through problems, all of which are signs of stronger behavioral engagement. Because they also value learning and feel more positively about it, these students tend to use deeper cognitive and metacognitive strategies (reflecting cognitive engagement) while enjoying more positive classroom experiences (reflecting emotional engagement). In short, academic self-efficacy supplies much of the motivational energy needed to stay psychologically invested in learning, which underscores why strengthening self-efficacy matters so much for engagement.

The results also showed a direct, positive relationship between parental involvement and academic engagement ($r = 0.367$, $\beta = 0.263$), in line with earlier studies by Ariyan (2018), Barghi and Geraei Garavand (2020), Yan and Kuzum (2008), and Chang, Kong, and Minglei (2008) (8,22-24). Social learning theory would explain this through modeling and reinforcement: parents shape their children's academic behavior directly by demonstrating and emphasizing the value of positive educational habits. Parents who keep track of homework, stay in touch with

schools, and place real value on education send a clear signal about how much academic achievement matters, which boosts children's extrinsic motivation and encourages more time and effort toward schoolwork and classroom participation. Parental guidance during academic tasks also helps children experience more success, which in turn supports continued engagement down the line. This direct link highlights how central parents are as agents of socialization in shaping students' academic habits.

Conclusion

Overall, these findings suggest that parental involvement is a key driver of elementary students' academic engagement, working both directly and through its effect on academic self-efficacy. This underscores how interconnected the factors shaping learning really are, and suggests that raising engaged, self-directed learners calls for investment in both social capital (family support) and psychological capital (self-efficacy) at the same time. Educational policymakers and school administrators would do well to design programs that help parents participate more effectively in their children's education while also building students' academic self-efficacy; for example, through self-regulated learning instruction, goal-setting training, and constructive feedback. Initiatives like these could meaningfully improve both learning quality and academic achievement.

Conflict of Interest

The authors declare that they have no conflicts of interest.

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