

The Mediating Effect of Student Engagement on the Influence of Parental Involvement on Pupils' Academic Performance: A Structural Equation Modelling Approach

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ABSTRACT

This study investigated the mediating role of Student engagement in the relationship between parental involvement and students' academic performance using Structural Equation Modelling (SEM). A causal-descriptive research design was employed involving 203 grade 4 to 6 students and 203 parents from Plantation Central Elementary School, Manolo Fortich District III, Division of Bukidnon, Philippines. Validated instruments were utilized to measure parental involvement and student engagement, while academic performance was based on students' average grades. Results indicated very high levels of parental involvement and student engagement, alongside outstanding academic performance. Model fit indices confirmed that the proposed SEM exhibited good fit. While the direct effect of parental involvement on academic performance was significant, the indirect effect through Student engagement was not statistically significant, suggesting the presence of other mediating factors. Findings highlight the importance of strengthening home-school partnerships to support learners' academic success.

Keywords: Parental Involvement, Pupil Engagement, Academic Performance, Structural Equation Modelling

INTRODUCTION

Academic performance is a critical indicator of educational success and future opportunities for students, reflecting their success in several subjects (Davaatseren et al., 2024), academic performance is a key predictor of educational achievement and future chances for pupils. High academic achievement is usually associated with enhanced job prospects, greater earning ability, and more chances for personal development and more schooling. As a result, instructors, legislators, and parents pay attention to academic achievement to give kids the best possible starting point for their future activities.

However, for many pupils all throughout, though, reaching and sustaining high standards of academic achievement is still difficult. Damian (2016) emphasizes that the demand to do well academically can cause stress, identity problems, and a concentration on conformity rather than inventiveness. Parental involvement, student engagement, socioeconomic level, and cultural variations are among several variables that affect academic achievement (Husen, 2017; Ensign, 2014; Munjirin, 2023). Furthermore important components contributing to academic achievement are motivation, social support, study habits, intellectual capacity, and learning environment (Munjirin, 2023). Improving academic performance depends on tackling this range of influences.

Particularly concentrating on the mediating influence of student involvement, numerous studies have investigated the link between parent engagement and pupils' academic success. Mediated by teenagers' behavioral engagement, parental involvement favorably impacts academic performance, Xiong (2021) discovered. Park (2023) discovered a good correlation between parental participation and academic achievement as well, with school adjustment and academic engagement acting as major mediating factors. Yau (2021) concurred with these results, demonstrating that perceived maternal support favorably associated with academic achievement, mediated by students' involvement with academic goals. Utami (2022) underlined the need of parental involvement in enhancing school achievement especially in lessening financial or family difficulties.

Together, these studies underline how important Student involvement is as a mediator in the link between parental input and academic success.

Studies repeatedly reveal that parental participation greatly affects pupils' academic achievement (Jaiswal, 2017; Grolnick, 2016; Sun, 2023). This impact is especially noticeable when parents hold great expectations for their kids' educational success (Jaiswal, 2017). Nevertheless, the kind and circumstance of participation can affect the efficacy of parental engagement (Jaiswal, 2017). An authoritative parenting style, marked by high expectations and warmth, for example, is favorably related with academic achievement (Jaiswal, 2017). Parental engagement can also improve children's academic achievement and motivation by enabling their felt competence, control, and autonomous self-regulation (Grolnick, 2016). Parental participation also centers on emotional support, academic direction, and family educational materials, all of which directly affect academic performance (Sun, 2023).

Though many attempts have been made to solve the problem of poor academic performance, it continues to be a persistent obstacle in educational systems all throughout. Complex interactions exist among elements like family support, financial difficulties, motivation, learning environment, engagement, equality, teaching methods, lecturer skill, classroom and library circumstances, peer influences, procrastination, study habits, distractions, socio-economic background, parental pressure, and systemic problems including curriculum segmentation, knowledge gaps, student culture, and pedagogical inefficacy (Govindarajoo, 2022; Nwosu, 2018; Selvarajoo, 2023; Mascolo, 2015). This intricacy makes it challenging to properly solve the problem. Still missing is a comprehensive grasp of the interaction of several influencing elements.

Multiple research have always revealed a favorable link between student engagement and school performance. Ricardo (2021) and Cabrejas (2023) discovered that increased levels of participation go hand in hand with better academic achievement; Cabrejas notably emphasized the part of behavioral engagement. With engagement mediating the links, Sattar (2022) underlined the need of learning context and goal directness in predicting Student engagement and academic achievement. Siddiq (2020) confirmed that academic behavioral skills and engagement may forecast academic success throughout several countries.

Although prior research offers strong proof on the important elements affecting academic achievement such as parent involvement, student engagement, and socioeconomic status a major gap still exists in knowledge of the all-encompassing interaction of these variables. Past research have thoroughly investigated the mediating influence of student engagement in the connection between parental participation and academic achievement (Xiong, 2021; Park, 2023; Yau, 2021; Utami, 2022). These research, though, usually isolate particular elements without taking into account the more general, complex relationships that might also affect academic performance. Using structural equation modeling (SEM), this study therefore aims to address this need by examining how Student engagement mediates the link between parental participation and academic performance.

Research Questions

This study aimed to determine the significant impact of parental involvement on students' academic performance with Student engagement as the mediating variable.

Specifically, it sought to answer the following questions:

1. What is the level of parental involvement in terms:
 - 1.1 parental love and guidance;
 - 1.2 parent-teacher communication;
 - 1.3 participation in school activities; and
 - 1.4 parental satisfaction?
2. What is the level of students' engagement in terms of:

- 2.1 behavioral engagement;
- 2.2 cognitive engagement; and
- 2.3 emotional engagement?
3. What is the level of the students' academic performance?
4. Does parental involvement influence students' academic performance?
5. Does students' engagement mediate the influence of parental involvement on the students' academic performance?

LITERATURE REVIEW

Parental Involvement

Parental involvement is widely recognized as a critical factor influencing students' academic success. It refers to parents' active participation in their children's educational experiences through guidance, communication with teachers, participation in school activities, and overall satisfaction with the educational process. Particularly when parents show high expectations and consistent support for education, Jaiswal and Choudhuri (2017) stressed that parental involvement helps to shape students' academic success significantly. Their study revealed that pupils whose parents are actively involved in their education usually have higher motivation, better study habits, and better academic performance. (Grolnick, 2016) went on to say that parent participation promotes children's academic motivation and performance by helping them to feel competent, independent, and self-regulating. Students who are more likely to have favorable attitudes on learning have parents that give emotional support and adequate guidance. Likewise, Sun (2023) found emotional support, learning advice, and family educational resources to be important aspects of parental involvement that favorably affect academic performance. In the Philippine context, (2021) found that parental involvement plays a significant role in students' academic performance, particularly during alternative learning modalities. Parents who monitored schoolwork, communicated with teachers, and supported learning at home contributed to better academic outcomes. These findings suggest that parental involvement remains a vital educational resource regardless of learning setting.

Pupil Engagement

Student engagement refers to the degree to which students are actively involved in their learning processes. Often seen as a multidimensional construct including cognitive, emotional, and behavioral involvement. (2019) defined behavioral engagement as participation in academic activities, cognitive engagement as investment in learning and critical thinking, and emotional engagement as pupils' interest and emotional attachment to school. Many research have found a close link between academic performance and student participation. Furthermore found by Garcés-Delgado (2021) is that students who are involved always show superior academic success across learning situations. Likewise, Cabrejas and Mendoza (2023) discovered that behavioral and cognitive involvement greatly affects pupils' academic success, especially in flexible learning settings. Emphasizing the universality of involvement as a factor of achievement, Siddiq et al. (2020) confirmed the predictive impact of engagement and academic behavioral skills on academic performance across many nations. Through student engagement, Sattar et al. (2022) underlined how learning environment and goal directness impact academic achievement, therefore highlighting its mediating function in educational results.

Academic Performance

Academic performance is a primary indicator of students' educational success and learning achievement. et al. (2024) defined academic performance as the measurable outcomes of students' learning efforts, often reflected through grades and academic evaluations. High academic performance is associated with increased educational opportunities and long-term career success. Despite its significance, a number of factors make it difficult for students to keep up their academic performance. According to Munjirin and Iswinarti (2023), key factors

influencing academic performance include motivation, study habits, family support, and socioeconomic status. In addition, et al. (2022) and Selvarajoo and Baharudin (2023) emphasized the complexity of academic achievement by pointing out that the interaction of individual, family, and institutional variables frequently leads to poor academic results. et al. (2015) warned that too much pressure to perform well in school might have a detrimental impact on students' identity and well-being. They proposed that academic achievement should be fostered through a holistic and balanced approach that includes the home and school environments.

Student engagement as a Mediating Variable

Recent studies are placing more importance on how student engagement helps explain the effect of parents' involvement on students' school performance. Xiong and others in 2021 discovered that parents being involved leads to better grades for teenagers through their participation in school activities, showing a clear mediating effect. In a similar vein, Park and Kim in 2023 mentioned that student engagement and how well students adjust to school act as links between parental involvement and students' academic success. Yau and colleagues in 2021 backed this up by illustrating that support from parents boosts academic performance through students' commitment to their educational goals. Utami in 2022 also pointed out that when parents are involved, students tend to achieve better academically by increasing their engagement levels, especially for those from lower-income families. However, even though there are consistent results that support student engagement as a key factor, many studies only look at a few variables or specific situations. Many of these studies do not fully explore how parental involvement, different aspects of student engagement, and academic success interact with each other in depth. This gap shows the importance of conducting research using structural equation modeling to gain a clearer picture of these complicated connections.

Synthesis and Research Gap

The reviewed literature clearly establishes that parental involvement and Student engagement are significant predictors of academic performance. Previous studies have demonstrated that parental involvement enhances students' engagement, which in turn contributes to better academic outcomes. However, gaps remain in understanding how the multidimensional nature of Student engagement mediates the relationship between parental involvement and academic performance within specific educational contexts. In response to this gap, the present study investigates the mediating effect of Student engagement on the influence of parental involvement on students' academic performance using structural equation modeling. By examining cognitive, behavioral, and emotional engagement simultaneously, this study provides a more comprehensive understanding of the mechanisms through which parental involvement affects academic performance, particularly within the context of Plantation Central Elementary School, Manolo Fortich District III, Bukidnon Division.

RESEARCH METHODOLOGY

Research Design

The research employed a causal descriptive design; a methodological approach aimed at explaining the attributes of a phenomenon and analyzing plausible cause-and-effect connections among variables. This design is especially advantageous for inquiries seeking to discern the impact of distinct variables on outcomes within a designated setting. Within the scope of this study, the causal descriptive design facilitates the examination of the mediating influence of Student engagement on the relationship between parental involvement and students' academic performance.

Respondents

The respondents of this study comprised 203 grade 4 to 6 students and 203 parents from Plantation Central. The student respondents offered insights into the levels of student engagement, while the parent respondents provided information on the extent of parental involvement in relation to students' academic performance.

The study utilized an availability sampling technique, also known as convenience sampling. This non-probability sampling method involves selecting respondents who are easily accessible and willing to participate. Given the constraints of time and resources, availability sampling was deemed a practical approach for this research.

The distribution of respondents across grade levels is as follows:

Respondents	Population	Sample Size
Grade 4	108	70
Grade 5	76	52
Grade 6	95	81
Parents	203	203
Total	279	203

Instruments of the Study

The instruments used in this study were carefully selected and designed to effectively measure the objectives of the research. Each instrument addresses a specific aspect of the variables under investigation, including parental involvement, student engagement, and academic performance. To assess parental involvement, the Parental Involvement Scale (PIS) developed by et al. (2023) was utilized, providing a reliable and comprehensive measure of parental support in areas such as guidance, communication, participation in school activities, and overall satisfaction. Student engagement was evaluated using the Student Engagement Survey created by (2019), which captures behavioral, cognitive, and emotional dimensions of engagement. Finally, students' academic performance was determined through their fourth-quarter grades for the 2023–2024 school year, obtained from official school records of Grade 4 to 6 pupils at Plantation Central Elementary School, Manolo Fortich District III, Division of Bukidnon. The combination of these instruments ensured a thorough and accurate assessment of the study's variables.

The PIS evaluates parental involvement across four dimensions: (a) *Parental Love and Guidance*, (b) *Parent-Teacher Communication*, (c) *Participation in School Activities*, and (d) *Parental Satisfaction*. The scale has demonstrated high internal consistency and reliability, with a Cronbach's alpha value of 0.960, which is interpreted as "very good." This reliability indicates that the instrument consistently measures parental involvement across the targeted dimensions.

The Student Engagement Survey examines engagement through three dimensions: (a) *Behavioral Engagement*, (b) *Cognitive Engagement*, and (c) *Emotional Engagement*. Students answer questions on a set questionnaire that evaluates how much they get involved, their interest, motivation, and feelings about learning. This tool has been extensively used and proven reliable in earlier research, making it suitable for measuring how engaged students are in this study's context.

Students' school results were assessed using their average scores from the last part of the 2024–2025 academic year. These scores came from the official records of students in Grades 4 to 6 at Plantation Central Elementary School in Manolo Fortich District III, Division of Bukidnon. This clear way of measuring performance adds to the information gathered from surveys on how parents participate and how engaged students are, giving a complete view of what influences learning results.

The use of validated instruments, such as the PIS and the Student Engagement Survey, ensures the accuracy and credibility of the collected data. The high Cronbach's alpha of the PIS further confirms the reliability of the parental involvement measure, while the Student Engagement Survey has been shown in previous research to produce consistent and valid results across its three dimensions. The combination of these reliable and validated instruments, along with official academic records, allowed for a rigorous assessment of the study variables.

Data Gathering Procedure

The data gathering procedure began with the preparation phase, where necessary permissions were obtained from school administrators and the Department of Education (DepEd) Division of Bukidnon. Schools, parents, and students were informed about the study, its purpose, and the data collection process, ensuring confidentiality and obtaining informed consent from all participants.

During the instrument distribution phase, the finalized online survey form was distributed via Google Forms. The Parental Involvement Scale (PIS) was distributed to the parents of the selected grade 4 to 6 pupils, while the Student Engagement Survey questionnaire was administered to the pupil respondents.

In the data collection phase, completed PIS forms were collected from parents, ensuring all sections were filled out, and completed Student Engagement Surveys were gathered from students. Additionally, students' average grades for the fourth quarter of the school year 2023-2024 were obtained from school records.

The data verification phase involved reviewing the collected data for completeness and accuracy and entering the data into a database for analysis.

Data Analysis

For data analysis, Structural Equation Modeling (SEM) was used to analyze the relationships between parental involvement, pupil engagement, and academic performance, and to test the mediating effect of student engagement on the relationship between parental involvement and academic performance.

Finally, the reporting phase involved compiling the findings into a comprehensive report, sharing the results with stakeholders, including school administrators, teachers, parents, and the DepEd Division of Bukidnon, and providing recommendations based on the study's findings to inform educational policies and practices.

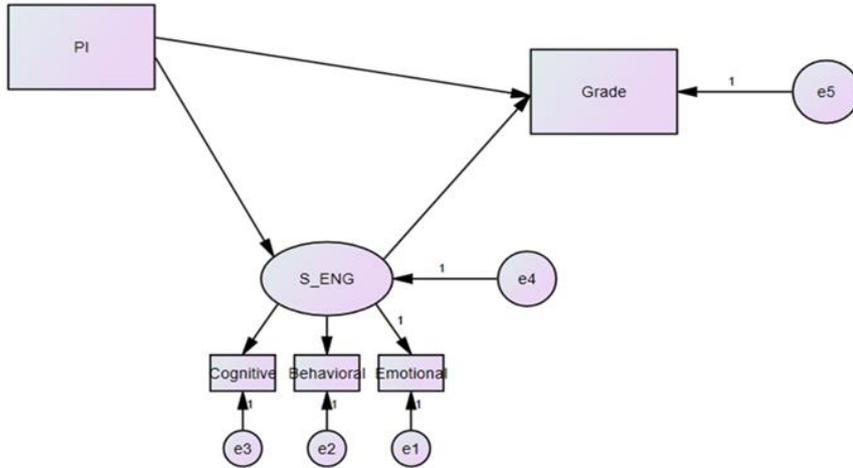
Ethical Considerations

Ethical considerations were strictly observed throughout the study to protect the rights and welfare of all participants. Informed consent was obtained from both the students and their parents, ensuring that participation was voluntary and that respondents could withdraw at any time without consequences. Parental consent was particularly emphasized due to the involvement of minors. Confidentiality was maintained by anonymizing all responses and securely storing the collected data. Participants were assured that the information they provided would be used solely for research purposes and reported in aggregate form to prevent individual identification. The study was conducted with respect for the dignity, privacy, and well-being of all participants, ensuring that ethical standards were upheld at every stage of the research process.

RESULTS AND DISCUSSIONS

For Problem 1, descriptive statistics like the average and variability were determined for every area of parental involvement, including parental affection and guidance, communication with teachers, participation in school events, and overall parental satisfaction. This offered a summary of how much parents participated in their children's education across these areas. Furthermore, for Problem 2, descriptive statistics were employed to evaluate how engaged the students were, examining their behavior, thinking, and feelings. The average and variability were calculated to measure the typical level of engagement and how much it varied among the students. In relation to Problem 3, students' academic success was evaluated using tools such as average grades, and descriptive statistics, including the average and variability, were calculated to present a summary of the academic performance of the students in this study. For questions 4 and 5, we used structural Equation Modeling (SEM) or path analysis. SEM helped us figure out how parental involvement directly affects students' school achievements. Additionally, SEM was used to see if students' participation acted as a bridge between parental involvement and their academic success. This study revealed how parental involvement can indirectly influence school performance by way of students' engagement.

Final Model



Model Fit Values

Fit Value	X2	Df	X2/df	P	GFI	AGFI	NFI	IFI	TLI	CFI	RMSEA	SRMR
Good Fit		>0	<3	>.05	>.90	>.90	>.90	>.90	>.90	>.90	<.05	<.05
Final Value	5.459	4	1.365	.243	.989	.960	.965	.990	.975	.990	.043	.0372

Table 1

Table 1 shows how well a structural equation model works in understanding how student engagement acts as a link between parental involvement and students’ academic success. In this study, the main focus is on parental involvement, and student engagement is divided into three parts: cognitive, behavioral, and emotional aspects. The fit indices help us see how well the model explains this complicated relationship. The chi-square statistic was 5. 459 with 4 degrees of freedom, resulting in a ratio of 1. 365. While this ratio is a bit higher than the ideal limit of 3, it indicates a decent match between the model and the actual data. However, the p-value of 0. 243 suggests that there may not be strong evidence supporting the model’s fit based on the data collected. Still, other fit indices give a more positive outlook. The GFI, AGFI, NFI, IFI, TLI, and CFI all surpassed the 0. 90 mark, showing a robust connection between the model and the data. Additionally, both the RMSEA and SRMR values are below the ideal threshold of 0. 05, confirming that the model is effective in explaining the relationships observed.

In conclusion, many indicators show a good alignment, even though the chi-square test shows some differences between the model and the actual data. The proposed structural equation model provides a logical way to understand how parents' participation affects students' academic performance through their engagement, which involves thinking, acting, and feeling. However, researchers might also want to explore other possible factors or different ways to enhance the model. Furthermore, since most of the results align well, this model could be a useful resource in efforts to boost parental involvement and enhance various aspects of student engagement for better academic results.

VARIABLES	MEAN	SD	INTERPRETATION
PI	4.49	.21	VH
GRADE	94.21	2.12	OUTSTANDING

Table 2

The table 2 gives a clear summary of the factors connected to how involved parents are (PI) and how well students perform in school, especially regarding their grades (GRADE). The average score for parental involvement is 4.49, with a standard deviation of 0.21, showing that there is a fairly high level of parent involvement among those surveyed. This indicates that, generally, parents are actively participating in their children's learning, which is also highlighted by the term "VH," meaning very high involvement from parents. Regarding academic success, the average grade is 94.21 with a standard deviation of 2.12, indicating that the students are achieving excellent results. The term "OUTSTANDING" highlights how impressive their academic performance is. These results are important for both education research and practice. First, the strong level of parental involvement points to the essential role parents have in helping their children's education. Teachers and decision-makers should acknowledge and take advantage of this active participation by creating strong partnerships between schools and families. Approaches such as frequent communication, workshops for parents, and chances for families to engage in school events can improve parent involvement and lead to better academic results.

Furthermore, the remarkable academic achievements of the students highlight the need for a supportive learning atmosphere at home and in school. Teachers should keep using effective methods, offer meaningful learning experiences, and provide help to make sure all students have a chance to do well academically. In addition, recognizing and celebrating student achievements can encourage a culture of high academic standards and inspire students to keep aiming for success.

Overall, the results emphasize how important it is for parents to be involved in their children's education, affecting their success in school. It also stresses the need to build a helpful learning environment that encourages teamwork among parents, teachers, and students. By coming together to boost participation, offer assistance, and recognize accomplishments, everyone involved in education can foster a setting where each student can excel academically and achieve their highest potential.

VARIABLES	MEAN	SD	INTERPRETATION
COG	4.48	.30	Very High
BEH	4.51	.38	Very High
EMO	4.46	.47	Very High
SE	4.48	.29	Very High

Table 3

The table 3 presents an analysis of student engagement, which comprises three indicators: cognitive (COG), behavioral (BEH), and emotional (EMO) engagement, as well as an overall measure of student engagement (SE). The mean scores for cognitive, behavioral, emotional engagement, and the overall student engagement are 4.48, 4.51, 4.46, and 4.48, respectively. These mean scores indicate a high level of engagement across all three dimensions, as well as overall. The relatively low standard deviations (0.30, 0.38, 0.47, and 0.29, respectively) suggest that there is not much variability in engagement levels among the students, further supporting the consistency of high engagement.

The interpretation of "Very High" for all engagement indicators underscores the robust and consistent engagement of students across cognitive, behavioral, and emotional domains. This suggests that students are actively involved in their learning, both cognitively (such as critical thinking and problem-solving), behaviorally (such as participation and attendance), and emotionally (such as enthusiasm and interest in learning).

These results are very important for teachers and decision-makers. First, the strong involvement of students indicates that they are eager and committed to their education.

Teachers need to keep supporting and encouraging this involvement by offering exciting and relevant learning experiences that meet the different interests and ways students learn. Moreover, creating a friendly and encouraging classroom atmosphere where students feel appreciated and are motivated to take charge of their education can boost their involvement even more.

Furthermore, the strong and ongoing involvement seen in the thinking, actions, and feelings of students highlights the need for a comprehensive method to enhance student engagement. Teachers should understand and tackle the complex ways students engage by using methods that focus on different parts of students' thinking, actions, and emotional health. This might include using hands-on project work, encouraging good connections between students and teachers, creating chances for students to work together and make choices, and adding emotional learning to what is taught in schools.

Overall, the findings highlight the positive engagement of students across cognitive, behavioral, and emotional domains, emphasizing the importance of creating a supportive and enriching learning environment that promotes active participation and fosters students' overall well-being and academic success.

		95% Confidence Interval			
Direct Effect	Estimate	Lower	Upper	P-value	Interpretation
PI>G	5.428	4.203	6.676	.001	SIG

Table 4

Table 4 shows how parental involvement directly affects students' grades. The data reveals that parental involvement significantly influences academic success ($\beta = 5.428$, $p = .001$). The confidence interval, which ranges from 4.203 to 6.676, does not include zero, further proving that this effect is important. This means that when parents are more involved, students tend to do better in school, even if we also consider how engaged the students are.

This finding emphasizes how important it is for parents to be actively engaged in their children's education. Support, guidance, and communication from parents can have a direct impact on students' academic achievement. The strong effect of parental involvement suggests it is a key factor in students' success, even with student engagement factored into the equation.

These findings are very important. First, they highlight how crucial parental involvement is in influencing students' academic results through participation in educational activities. Schools and policymakers should think about ways to boost parental involvement, like creating better communication between schools and families, giving parents tools to help their children learn at home, and hosting workshops for parents on education. Second, the strong direct effect of parental involvement on student engagement reminds us that having a supportive home environment is vital for encouraging students to take part in their education. By taking an interest in their children's schoolwork, providing guidance and support, and creating a good space for learning at home, parents can significantly motivate and assist their children in their studies.

These findings suggest that interventions targeting student engagement may yield positive effects on academic performance. Educators can implement instructional strategies that promote active learning, encourage student participation, and foster a sense of belonging and ownership in the learning process. Additionally, efforts to enhance students' cognitive, behavioral, and emotional engagement may lead to improved academic outcomes. This could involve implementing project-based learning activities, incorporating real-world applications into the curriculum, providing opportunities for peer collaboration and discussion, and addressing students' socio-emotional needs.

The results of this analysis emphasize the interconnectedness of parental involvement, student engagement, and academic performance. By recognizing and leveraging these relationships, stakeholders in education can develop holistic approaches to support student success and foster positive academic trajectories.

summary

		95% Confidence Interval			
Indirect Effect	Estimate	Lower	Upper	P-value	Interpretation
PI>SE>G	.050	-.418	.705	.743	Not Sig

Table 5

Table 5 shows a detailed examination of how parental involvement (PI) affects students' academic performance (G) indirectly, using student engagement (SE) as a middle factor, along with their 95% confidence intervals. The estimated indirect effect is .050, and there's a wide confidence range from -.418 to .705. Importantly, the p-value linked to this indirect effect is .743, which shows that it is not statistically meaningful. This means that the way parental involvement influences academic success through student engagement does not have significant statistical importance.

These results have important consequences for both studies and practices in education. First, even though parental involvement and student engagement are considered key factors affecting academic results, the lack of a significant indirect effect between parental involvement and academic performance via student engagement suggests that other influencing factors might be more critical in this relationship. Researchers might need to look into more variables or methods that can better clarify how parental involvement affects academic success.

Furthermore, from a practical viewpoint, teachers and decision-makers should think about taking a more complete approach to enhance academic performance that extends beyond just improving student engagement. While encouraging active participation in learning activities is still very important, efforts to increase parental involvement may also need to include other strategies to have a stronger impact on academic results. For instance, initiatives to boost students' self-control skills, provide focused academic assistance, or tackle socio-economic issues might work well alongside efforts to involve parents more in their children's education and help with students' academic achievements.

In addition, the lack of a significant indirect effect highlights how complex the connections are between parental involvement, student engagement, and academic performance. Educators and policymakers need to understand that these aspects function in a complicated system influenced by many individual, family, and situational factors. Thus, programs aimed at improving academic outcomes should be customized to meet the specific needs and situations of students and their families. By using a comprehensive and thoughtful strategy, those involved in education can create more effective methods to aid students' academic success and ensure fair learning opportunities for everyone.

SUMMARY OF FINDINGS

The synthesis of these findings provides a rich understanding of the factors influencing students' academic performance. Firstly, getting parents involved is very important, with a high average score of 4.49 showing this clearly. This indicates how vital it is for parents to be actively part of their children's education, which is also backed up by excellent grades, averaging 94.21, showing great success. These results emphasize the need for schools and families to work together even more, promoting a strong culture of academic achievement.

Additionally, looking at how engaged students are shows consistently high involvement in thinking, behavior, and feelings, with average scores between 4.46 and 4.51, indicating very strong engagement. This highlights how motivated students are to learn. Teachers should keep encouraging this involvement by creating friendly and exciting learning spaces that fit different interests and ways of learning.

However, the lack of a strong indirect link between parental involvement and academic success through student engagement indicates the need for a more thoughtful approach. While parents being involved is still very

important, strategies should also look at other factors that influence students, such as their ability to manage themselves and their economic backgrounds, to achieve better results in academic performance.

In conclusion, this research highlights how parents' participation, students' involvement, and school success are all linked together. If those involved in education understand and make use of these connections, they can create complete strategies to help students succeed and encourage positive educational paths. Focusing on teamwork among parents, teachers, and students, while customizing support to meet different requirements, can establish a setting where every student has the chance to excel academically and achieve their maximum potential.

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