American Journal of Education and Technology (AJET)

ISSN: 2832-9481 (ONLINE)

VOLUME 4 ISSUE 1 (2025)

PUBLISHED BY
E-PALLI PUBLISHERS, DELAWARE, USA

American Journal of Education and Technology (AJET)

Volume 4 Issue 1, Year 2025
ISSN: 2832-9481 (Online)
DOI: https://doi.org/10.54536/ajet.v4i1.4141
https://journals.e-palli.com/home/index.php/ajet

The Impact of Parental Involvement on Their Children's Academic Success

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Article Information

Received: November 17, 2024
Accepted: December 26, 2024
Published: February 06, 2025

Keywords

Children's Academic Success, High Level of Engagement, Home-Based Strategies, Motivation, Parental Involvement, Reduced Dropout Rates

ABSTRACT

The most significant influencers are parents, who help their kids achieve academically through positive support and encouragement. The performance of their children in school activities and the parents' involvement in them are consistently correlated; this makes children flourish in education. Parenting style and strategies at home furnish growth and development in every facet of kids' lives. Hence, analyzing the effects of parental participation (PI) on their kids' academic development is the goal of this study. This study utilizes a mixed-method research design for collecting data. The answers to the questionnaire were collected from 425 parents and 110 teachers. The interview data was obtained from 37 parents, 32 teachers, and 130 students. NVivo software was used to evaluate the qualitative data, while SPSS software was used to examine the quantitative data that had been obtained. The study findings reveal that PI expands children's academic performance and motivation, joining in educational activities, intensifying the school attendance rate, decreasing dropout rates, accelerating positive attitudes towards learning, and regulating behaviour and discipline among children. The study result indicates the positive effects of PI on kids' academic achievement (AS). The novelty of the study resides in its overarching, complete studies on how PI affects parents' kids' academic performance. The study contributes to the field of child education by laying out and focusing on the influence of PI over the child's academic achievement and suggesting making certain of the PI in education for the benefit of the child. The study suggests putting forward the design of the implementing programs to draw the attention of parents in education by demonstrating the PI's constructive outcomes on a child's AS.

INTRODUCTION

PI is an integral part of their kids' AS by giving them innate encouragement and support. Parents support their children in their academic endeavours from childhood to adolescence. Higher levels of PI are related to higher scores. Their involvement in their kids' academic pursuits, their collaboration with the teachers at educational institutions, and supporting home-based homework activities are increasing the children's learning outcomes and educational experiences (Ribeiro *et al.*, 2021). Therefore, the purpose of the study is to examine how parental participation affects their kids' academic development. The background of the study lies in its comprehensive analysis of how parents act as mentors, supportive backbones, and teachers and become a part of the children's AS.

Parents Role in Education

Every student's first teachers are their parents; their involvement and activeness determine the student's success in their long-term educational process. The values taught by the parents to their children shape their characters and strengthen their learning skills, ethics, and involvement in learning (Setiawan *et al.*, 2020). Parents' education level and access to financial services provide more educational opportunities for students and increase their well-being. The parent's involvement in their kids' education creates favourable, inclusive learning weather conditions and boosts their motivational level. In addition, providing moral support and emotional assistance for their kids molds kids' behavior and nurtures their growth (Alcaraz, 2020). Parents are the key influencers in evoking the students' interest in learning by setting parents' expectations, appreciating their achievements, cultivating a supportive environment, and encouraging always (Hidayatullah & Csíkos, 2024). Thus, the parents play a prominent role in students' education.

Importance of Parental Engagement in Academic Achievement

Parental expectations for their children's education and learning process, along with their actions and attitudes, are referred to as PI. Parental engagement is positively correlated with the student's academic achievement by nurturing their children's educational process. Students exhibit a higher level of AS when they get supportive parents in their learning process. Likewise, when parents are involved in education, students exhibit a higher level of motivation, enhance their learning skills, and show a high score (Peng *et al.*, 2024). PI not only contributes to developing learning skills, it also creates a sense of responsibility toward learning and academic self-assurance. High academic achievement is linked to both PI and self-efficacy. Their involvement in school and home consistently brings them AS (Kang *et al.*, 2024). Effective parental association increases academic motivation and

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positive attitudes by providing psychological support; thereafter, it helps them to effectively set the plans in education (Marrun, 2020).

Rationale of the Study

Parents' engagement in education has gained attention in recent years by expanding the student's educational outcomes. The academic achievement gap is negatively attributed to the success of students' future lives. Parents' support networks subsequently increase students' attention, retention, and AS. The purpose of the research is to ascertain the effects of children's AS and provide valuable insights for educational activities to encourage parents to be actively involved in their children's educational learning process. In this sense, analysing the significance of the parental role in education, the study will help policymakers and educators to identify such factors as parent-teacher cooperation and home-school relationships. Based on the type and degree of parental involvement found in this study, implications of strategies of teachers, students, parents, and students' learning environments are recommended. This research can be considered important in the field of education and opens a field for studying diverse sides of the involvement of parents in education. In contrast, the study utilised a mixed method, which is more suitable to provide an elaborate understanding of the significance of parental involvement in raising the standards of academic performance by obtaining students', teachers', and parents' experiences.

Research Objectives

RO1

To examine how PI affects their kids' good behavior, AS, and discipline.

RO2

To examine the PI in developing children's motivation and engagement in educational activities.

RO3

To investigate the function of PI in increasing children's school attendance and reducing dropout while compared with less involved parents.

Research Questions

RQ1

What is the effect of PI on the lives of their kids AS, positive behavior, and discipline?

RQ2

To what extent does PI develop children's motivation and engagement in educational activities?

RQ3

What is the contribution of PI to raising kids' school attendance and reducing dropout when compared with fewer involved parents?

Contributions and Novelty

- The study examines the multidimensional impact of PI on children's education in order to support their kids' academic achievement.
- The study analyzes the influence of greater PI in enhancing students' motivation by providing support and inspiration and ensuring children's participation in educational activities.
- The study explores the PI in developing children's positive attitudes toward learning behavior and discipline in classrooms.
- The study compares the children's school attendance and dropout rates with the more involved parents in education and the less involved parents.
- The novelty of the study lies in scrutinizing the effect of PI on their kids' academic performance by focusing on the perspectives of teachers, students, and parents. Thereby the novelty of the study manifests how parental influences are larger in developing children's success in education.

The study's remaining section is organised as follows: A review of the literature and an identification of research gaps are provided in Section 2, and the research hypothesis and theoretical framework are presented in Section 3. The materials and procedures used in this research are described in Section 4, the study inquiry outcomes are presented in Section 5, and Section 6 offers a discussion of exploration. Section 7 delves into the study's implications, including theoretical and practical implications, and Section 8 concludes the investigation, highlighting its limitations and suggesting future scopes.

LITERATURE REVIEW

Effects of Parental Involvement on Academic Performance

Parental involvement (PI) has been shown to significantly improve children's academic achievement and participation in their education. Tan *et al.* (2020) examined parental involvement, particularly in areas such as reading, mathematics, and science, positively influences students' academic success. Parents with high socioeconomic status and education are strongly associated with their children's verbal proficiency and academic achievements. Ogg & Anthony (2020) also found that home-based PI and warmth, along with parental participation and financial position, positively influence students' reading, mathematics, and science growth. However, the parent's socioeconomic status can negatively affect children's academic success (AS) and parents' warmth in some families. Wang *et al.* (2023) investigated the association of PI with children's learning outcomes, particularly in Chinese, English, and Mathematics. A wave longitudinal study during the pandemic revealed that PI and learning engagement were directly connected to children's learning engagement and performance. Yang *et al.* (2023) conducted a systematic literature review and found that PI was directly linked with students' AS and decreased their dropout rate from schools. Different forms of PI, such

as academic support and communication with teachers, enhanced student engagement in classroom learning. Overall, the findings suggest that parental involvement and parental involvement play a crucial role in enhancing children's academic success and participation in their education.

Parental Involvement in Student Behaviour and Discipline

Parental involvement (PI) plays a crucial role in determining student behavior and discipline in educational settings. Responsible parents can positively impact student behavior by reinforcing positive attitudes and values. Effective PI supports the development of responsible behavior in students. A study by Bell (2020) examined the perceptions of Black students and their parents regarding school discipline practices. The findings revealed that Black students perceived school discipline as unfair due to excessive punishment and marginalized voices. The study recommends policy frameworks and school officials to improve disciplinary policies and practices to support Black students and foster a positive school environment. Li *et al.* (2020) found that families with high socioeconomic status supported homework activities and improved child communication, while families with low economic status developed strict discipline. Ribeira *et al.* (2021) found that parents' attention during the COVID-19 period regularized classroom attendance, regulated learning engagement, and shaped students' behavior towards learning. Overall, understanding the dynamics of PI in student behavior and discipline is essential for promoting responsible learning and academic success.

Research Gaps

Previous studies have shown a gap in understanding the impact of parental involvement (PI) on children's academic success (AS). While teachers motivate parents to engage in their children's education, there is a lack of analysis of the challenges in promoting parental involvement. The various parent support options for home-based learning are not adequately explained. There is also a lack of comprehensive analysis of different forms of PI in students' academic performance and success. Factors reducing parental involvement in children's educational pursuits are not explained. This research aims to examine the effects of parental involvement on children's academic performance, behavior, and overall educational experience to strengthen parental involvement in their children's AS and development.

Theoretical Background and Research Hypotheses

Theoretical Background

The study explores the role of Parental Involvement (PI) in children's academic success, incorporating theories such as ecological system theory, self-determination theory, and social learning theory. These theories emphasize the importance of parents as the foundation for their children's academic success.

Ecological System Theory

Ecological system theory suggests that a child's growth is significantly influenced by their environment, and parents play a crucial role in creating a supportive and motivating environment for their children's academic progress (Tong & An, 2024; Nolan & Owen, 2024). Parents act as mentors, regulating their children's behaviors through interaction and teaching values (Vaezghasemi *et al.*, 2023). Their interpersonal relationships with their children enhance learning experiences, and their interaction with their children improves vocabulary and reading skills.

Social Learning Theory

Social learning theory, by Albert Bandura, emphasizes that children learn new behaviors by copying and observing others' actions. When parents are involved in education, they become role models, investing more time in their children's lives and becoming role models in their child's life (Ahn *et al.*, 2020; Chuang, 2021; Mukhalalati *et al.*, 2022). This observation provides insights about learning strategies, study habits, and attitudes towards school, enhancing motivation and engagement levels.

Self-Determination Theory

Self-determination theory highlights the individual's level of autonomy in making choices and decisions. In the context of PI in children's AS, parents' supportiveness and motivation fulfill the psychological needs of their students, developing a positive attitude towards learning and regulating discipline and behavior in the classroom (Chiu, 2022; Chiu, 2021; Ryan & Deci, 2020). When parents and teachers provide adequate support, it fosters students in learning.

Research Hypotheses

The study research hypothesis examines the PI's role in children's AS. The research hypothesis demonstrates how and what are the ways that PI influences children's academic outcomes. By analysing the PI rates, the research hypothesis provides insights for educators to encourage the parent's participation in all kinds of school activities.

H1

Higher levels of positive parental engagement correlate with enhanced academic achievement among children.

H2

Greater parental involvement leads to enhanced motivation and engagement in educational activities among children.

H3

Children with more involved parents demonstrate improved attendance and reduced dropout rates compared to those without less involvement.

H4

Parental involvement is associated with developing

positive attitudes towards learning and school among children.

H5

Increased parental involvement correlates with improved behavior and discipline in children.

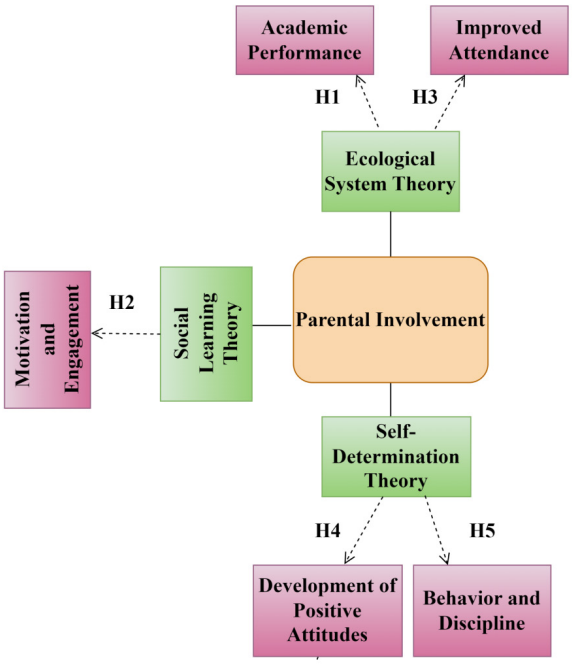

Figure 1: Theoretical Framework

MATERIALS AND METHODS

Parents are the most formal structure that affects the education of the child. PI is the core point of the study, which determines the level of the children's educational activities. Some of the objectives of the study include the following: The general study seeks to determine the ways in which the aspect of PI influences their children's AS. The materials section lists the materials used in this process of endeavour toward data collection from the participants, while the methods section gives an account of the approaches in this study toward data collection.

Research Design

Since the study seeks to find out the relationship between PI and the AS of the kids, this study deployed a mixed-method research approach, which involves the use of both quantitative and qualitative research methodologies. It is, therefore, more appropriate to use the quantitative research method in view of answering the research enquiries because of their numeric value or representations of collected figures. This quantitative design provides the most accurate outcomes of the study, which leads to utilising the quantitative study's research design. The research includes diverse participants who are active participants in the teaching of the kids. To better analyse the PI impact on students, the study utilises a quantitative research design. For deeply analysing and capturing participants' perceptions and experiences, the best approach is the quantitative research design. This informs the study's decision to use a mixed-method research design that combines quantitative and qualitative methods to fully address the research issues.

Target Population

The study's research population encompasses students, parents, and educators who work in the field of education. This ensures the comprehensive representation of the target population group. The participants are selected from diverse backgrounds to guarantee the precision of the information gathered regarding the PI. To demonstrate the full effects of PI on children's AS, the study selected the students, parents, and teachers. The study focused on school-going children, so the study selected participants who are linked with the school education currently. For the validity of the study, the participants were carefully selected. In the inclusion criteria, school students are only selected for the study studying the grade between the 8th and 10th grades. The teachers who are still working at school were only selected for the study; even the parents were also selected based on their children's studying at school. Below the exclusion criteria, students who have not studied in the school and are studying below 8th grade or studying above 10th grades, and teachers who are working at colleges or not currently working were not selected for the study; likewise, the parents, whose children completed the schooling or did not enrol in the schools yet, were not selected for the study.

Data Collection

To comprehensively assess the PI in their kids' AS, the research utilised a qualitative and quantitative data collection method that consists of interviews and questionnaires. Teachers, parents, and students provided the study's data. The purposive sampling technique was utilised to gather data for this investigation from students' parents and teachers.

Qualitative Data Collection

Parents, teachers, and students were directly interviewed in order to gather qualitative data. The direct interview was conducted by asking the well-prepared open-ended interview questions. The interview lasted 15 to 20 minutes. The sample of the interview questionnaire is posted in APPENDIX Table A3, which gathers the parents', teachers', and students' perceptions regarding the PI's impact on children's AS. The interview was conducted on the private school campus. The parents and teachers were invited to complete the questionnaire survey and take part in the interview. This study questionnaire consists of the yes-or-no type of interview invitation question in the demographic details section: "Are you willing to participate in an interview on the impact of PI on their children's AS?" Those who selected the yes option were selected for the interview. The student participants were selected from the private school and were studying between 8th grade and 10th grade. Before conducting

the interview, the respective classroom teachers asked the student's willingness. Among the 200 students who are studying grades from 8 to 10, 130 students were selected for the interview based on their willingness. Then the student interview was carried out under the supervision of teachers. The participant's answers were carefully recorded in audio form while conducting the online interview. Later the parents are called over the phone to the school campus, and the interview is conducted for them separately. Among the 300 willing parents, 37 only attended the direct interview. Likewise, teachers' interviews were conducted separately; among the 80 willing teachers, 32 only attended the direct interview. The interview provides a nuanced understanding of the function of PI in raising teachers' and students' AS.

Quantitative Data Collection

A questionnaire serves as a primary data collection tool for gathering quantitative data from teachers and parents. The questionnaires were distributed to teachers and parents who attended the parent-teacher meeting. After getting prior permission from school management, the participants received questionnaires directly from the source. The beginning of the questionnaire gathers the participant's demographic details, followed by the questionnaire consisting of objective types of questions related to parental involvement's impact on their children's AS, given on a 1 to 5-point Likert scale. The questions were asked following the Likert scales: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. The survey questionnaire aimed to seize the impacts of PI on children's educational process. The sample of the questionnaire is given in APPENDIX, Table A1 consists of a questionnaire distributed to parents, and Table A2 consists of a questionnaire distributed to teachers. The questionnaire was distributed to the selected purposive sample. A total of 500 surveys intended for parents were issued; of those, 200 were distributed targeting teachers. Among the returned questionnaires, 425 questionnaires from the parents and 110 questionnaires from the teachers were selected after the end of filtering; this ensures the participants of the study. During the filtering process, 75 questionnaires were returned from the parents, and 90 questionnaires returned from the teachers were excluded. The reasons for filtering consist of excluding incomplete responses, responses that do not meet the Likert Scale point 1 to 5 criteria, and some questionnaire answers that were not returned. After filtering, the final set of data was prepared.

Demographic Details

The students' demographic information is shown in Table 1. Among the 130 students, 49.23% are male, and 50.77% are female. In terms of participants, 22.31% are 13 years old, 26.92% are 14 years old, 25.38% are 15 years old, and likewise, 25.39% are 16 years old. Based on the grade level of students, 31.54% are studying 8th grade, 33.84% are studying 9th grade, and finally, 34.62% are studying in 10th grade.

Table 1: Demographic Details of Students

Demographic Variable	Category	Frequency (n=130)	Percentage (%)
Gender	Male	64	49.23
	Female	66	50.77
Age	13 years	29	22.31
	14 years	35	26.92
	15 years	33	25.38
	16 years	33	25.39
Grade Level	8th Grade	41	31.54
	9th Grade	44	33.84
	10th Grade	45	34.62

The parents' demographic information is shown in Table 2. 51.3% of the 425 parents are male, 48.7% are female, 20.7% are between the ages of 20 and 29, 40.5% are between the ages of 30 and 39, 31.7% are between the ages of 40 and 49, and 7.1% are over the age of 50. In terms of educational background, 12.9% of parents are high school graduates, 46.6% are bachelor's degree holders, 34.8% are master's degree holders, and 5.7% are PhD holders. The participants' job situation is as follows: 69.9% work full-time, 11.3% work part-time, 6.4% are unemployed, 7.5% are self-employed, and 4.9% are stay-at-home moms.

Table 2: Demographic Details of Parents

Demographic Variable	Category	Frequency (n=425)	Percentage (%)
Gender	Male	218	51.3
	Female	207	48.7

Age	20-29 years	88	20.7
	30-39 years	172	40.5
	40-49 years	135	31.7
	50 years and above	30	7.1
Education Level	High School	55	12.9
	Bachelor's Degree	198	46.6
	Master's Degree	148	34.8
	Doctorate	24	5.7
Employment Status	Employed Full-time	297	69.9
	Employed Part-time	48	11.3
	Unemployed	27	6.4
	Self-employed	32	7.5
	Homemaker	21	4.9

Table 3 presents the demographic details of the teachers. Among 110 teachers, 48.18% are male, and 51.82% are female. According to participant age, 20% are between the ages of 25 and 34, 40.91% are between the ages of 35 and 44, 27.27% are between the ages of 45 and 54, and 11.82% are between the ages of 55 and 64.

Table 3: Demographic Details of Teachers

Demographic Variable	**Category**	**Frequency (n=110)**	**Percentage (%)**
Gender	Male	53	48.18
	Female	57	51.82
Age	25-34	22	20.00
	35-44	45	40.91
	45-54	30	27.27
	55-64	13	11.82
Teaching Experience	Less than 5 years	18	16.37
	5-10 years	31	27.28
	11-20 years	39	36.35
	More than 20 years	22	20.00
Educational Level	Bachelor's degree	52	47.27
	Master's degree	50	45.46
	PhD or higher	8	7.27

Based on the teacher's teaching experiences, the teachers were classified: 16.37% have fewer than five years of experience, 27.28% have taught for five to ten years, 36.35% have taught for eleven to twenty years, and 20% have taught for more than twenty years. 47.27% of teachers have a bachelor's degree, 45.46% have a master's degree, and 7.27% have a PhD or higher, according to their educational background.

Variables and Measures

The study examines the effect of PI on the lives of their kids' academic performance by collecting the validated measures from previous studies. The participants' responses captured points of 1 to 5, from strongly disagree to strongly agree, on a Likert scale. The study variables are parental involvement, academic performance, motivation and engagement, improved attendance, development of positive attitudes, and behaviour and discipline.

Parental Involvement

The metrics for PI encompass that parental support in homework activities, supporting academic performance, attending parent-teacher meetings regularly, and discussing child progress with teachers increase the children's educational outcomes, adopted from the study by Ribeiro *et al.* (2021).

Academic Performance

Academic performance measures adopted by Chung *et al.* (2020) include increasing PI in student achievement, developing a child's better academic performance due to parental support, completing assignments with parental help, and frequency of parental reinforcement of education importance at home.

Motivation and Engagement

The variable motivation and engagement measures taken

from the study by Wang *et al.* (2023) include PI increasing the child's interest in school activities by providing motivation and developing the child's class active participation and engagement in their education.

Improved Attendance

The variable improved attendance measures taken from the study by Epstein & Sheldon (2002) denote that PI improves a child's school attendance, reducing the likelihood of a child missing school when they were involved, parental efforts to ensure regular school attendance, and parents' communication increases attendance rate.

Development of Positive Attitudes

Development of positive attitudes measures adopted from the study by Porumbu & Necşoi (2013) indicate that PI develops a positive attitude toward school, increasing the child's enjoyment of learning due to support, the anticipation of attending school due to engagement, and parental encouragement in attitude development.

Behaviour and Discipline

The measures for the variable behaviour and discipline adopted from the study by Hill *et al.* (2018) include that due to PI, children follow better behaviour at school, which improves child discipline and increases students' consistency in following school rules when parents are actively engaged.

Analysis of Data

The SPSS software was employed to analyse the quantitatively collected data. The quantitative data was analysed using statistical analysis. For analysing qualitative data, NVivo software is used. The interview answers are recorded in the audio decoded, and then thematic analysis is conducted to explore the themes of the study. These analysis methods provide detailed information on the impact of PI on their children's AS. These analysis methods provide rich, valid, and detailed information and lay the foundation for encouraging parents to participate in their children's educational process actively.

Qualitative Data Analysis

Table 4 presents the thematic analysis results of the parents', teachers', and students' experiences collected through an interview. The interview was conducted with 37 parents, 32 teachers, and 130 students. The purpose of the analysis is to explore the parents, teachers, and students' experiences regarding the PI's impact on students' AS. The NVivo software is used to analyse the collected qualitative data through interviews. The study's themes PI, AP, ME, IA, DPA, and BD are analysed under thematic analysis. Below the theme of PI, 37 parents stated that their involvement helps their child's success in education, 31 teachers mentioned that parents' supports boost students' performance, while 115 students mentioned that they felt more supported and confident when their parents were involved in their studies.

Under the theme AP, 35 parents mentioned that their children do better in their school activities when they help with their child's homework activities, and 29 teachers denoted that PI is directly linked with the student's academic grades. The parents' supportive students' score good marks in the exams when compared with individual learner students, and 126 students mention that they do better in school when their parents help with homework.

Table 4: Thematic Analysis Results

Theme	Description of Theme	Key Quotes from Parents	Key Quotes from Teachers	Key Quotes from Students
Parental Involvement (PI)	The active participation and engagement of parents in their children's education	"My involvement helps my child succeed in school." (37)	"Parental support significantly boosts student performance." (31)	"I feel more supported and confident when my parents are involved." (115)
Academic Performance (AP)	The impact of parental involvement on the academic achievements of children	"I notice my child does better when I help with homework." (35)	"I see a direct link between parent involvement and grades." (29)	"I do better in school when my parents help me with my homework." (126)
Motivation and Engagement (ME)	The role of parental involvement in increasing children's motivation and engagement	"When I take an interest, my child is more eager to learn." (33)	"Engaged parents lead to more motivated students." (27)	"I'm more interested in school when my parents show they care." (94)
Improved Attendance (IA)	The effect of parental involvement on children's school attendance	"I encourage my child to attend school every day." (31)	"Students with involved parents tend to have better attendance." (30)	"I don't miss school because my parents make sure I go every day." (112)

Development of Positive Attitudes (DPA)	The influence of parental involvement on the development of positive attitudes toward learning and school	"I always share the importance of education with my child." (36)	"Positive parental attitudes foster a love for learning." (32)	"I enjoy school more because my parents think education is important." (96)
Behavior and Discipline (BD)	The correlation between parental involvement and children's behavior and discipline	"I set clear expectations, and my child follows through." (37)	"Involved parents contribute to better student behavior." (29)	"I behave better at school because my parents set rules for me." (102)

Below the theme ME, 33 parents stated that when they take an interest. It piques their kids' curiosity in their academic pursuits to participate in their studies. 27 teachers mentioned parents motivating students to study, and 94 students stated that they are more interested in studies. Under the IA, 31 parents mention that they encourage their children to attend academic activities every day, 30 teachers state students exhibit a great attendance rate when their parents engage more, and 112 students denote that they attend everyday school because their parents ensure their attendance every day. Below the theme DPA, 36 parents mention that they frequently share the importance of education with their child, 32 teachers mention that parental attitudes foster a love for learning, and then 96 students mention that they are enjoying school studies because of their parent's perception of the importance of education. Under the theme BD, 37 parents mentioned that they set clear expectations for their children to follow good behaviour in the school environment, 29 teachers mentioned parents' contribution is positively related to better student behaviour in the classroom, and 102 students mentioned that they behave better at school because their parents set clear rules for them.

Quantitative Data Analysis

The descriptive statistics results for the study variables are shown in Table 5. This gives a concise overview of the study's distribution level variables among parents and teachers. While skewness and kurtosis describe the spread and height of the distribution of data, the variance measures how data points differ from the mean of the study variables. Variance is the square of the SD. In this study, descriptive statistics analyse the numerical information gathered via a survey regarding how PI affects kids' AS. The variable AP has a mean value of 3.5 and the SD of 1.313, variance 1.234, indicating a high level of AP among children in schools, with skewness -0.20 and kurtosis -0.55, indicating a high level of educational performance among students.

Table 5: Descriptive Statistics

Variables	Mean	SD	Minimum	Maximum	Variance	Skewness	Kurtosis
AP	3.5	1.313	2	5	1.234	-0.20	-0.55
ME	4	1.371	3	5	2.014	0.49	-0.62
IA	3.5	1.212	2	5	1.271	0.31	-0.52
DPA	4	1.311	3	5	1.617	0.41	-0.46
BD	3.5	1.237	2	5	1.621	0.28	-0.82
PI	4	2.145	3	5	2.630	-0.25	-0.53

ME mean value of 4, with an SD of 1.371, variance of 2.014, skewness of 0.49, and kurtosis -0.62, indicating a high level of motivation and engagement in educational activities among children due to parental support. IA mean score of 3.5, accompanied by a standard deviation of 1.212, variance of 1.271, skewness of 0.31, and kurtosis of -0.52, suggests that parental participation lowers dropout rates while increasing kids' regular attendance levels. The variable DPA exhibits a mean value of 4, with SD 1.311, variance 1.617, skewness 0.41, and kurtosis -0.46, indicating that frequent support of parents develops children's positive attitudes toward learning. The variable BD mean value of 3.5, with SD 1.237, variance 1.621, skewness 0.28, and kurtosis -0.82, indicates that parental regular monitoring and teaching good values shape the children's behaviour and discipline. PI means a value of 4, with an SD of 2.145, a variance of 2.630, a skewness of -0.25, and a kurtosis of -0.53, demonstrating PI. Their children's academic performance and educational results are developed during the educational process.

RESULTS AND DISCUSSION

The study result explores the effect of PI on kids' academic performance. By utilising the mixed method of research design, this study captures the perception and experience of educators, parents, and students over how PI affects kids' academic development. The study results provide a detailed account of the PI's impact on children's AS and the value of their participation.

Qualitative Results

The qualitative data was collected from teachers, parents,

and students through direct interviews. The collected data from students, parents, teachers, and other carers supply the specifics of the parental support techniques for home-based learning. In addition, the study captures the challenges in encouraging PI in instructors' viewpoints on children's education since they are crucial in promoting parental participation. Next, the research captures the negative effects of PI on AS from the perspectives of students. The qualitative analysis result informs the impact of PI on kids' AS by focusing on both positive and negative sides.

Parental Support Strategies for Home-Based Learning

The effectiveness of parental support strategies for home-based learning was discovered from the collected interview answers from 130 students, 32 teachers, and 37 parents on PI in children's AS. Parental support strategies in home-based learning give students opportunities to develop self-regulated learning skills and lifelong learning skills.

The students who received parental support in home-based learning exhibited higher achievements in academics and regulating their learning process correctly. Home-based learning support from parents creates a flexible and adaptive learning environment for students to learn freely and reduces the cognitive burden of students in doing homework activities.

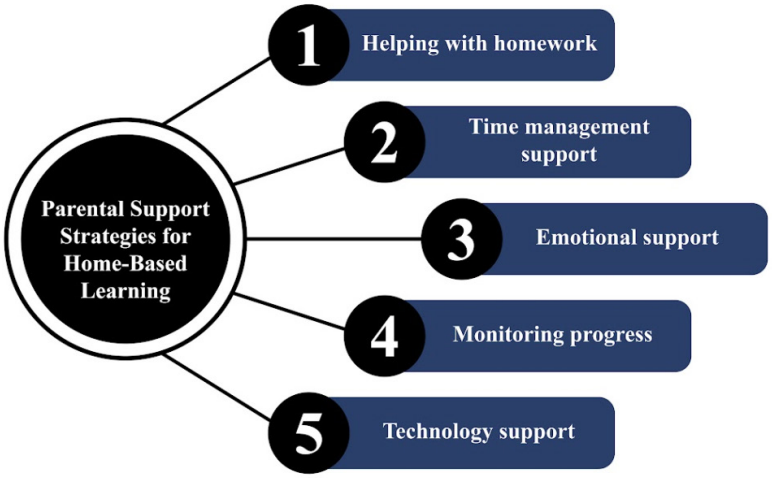

Figure 2: Parental Support Strategies for Home-Based Learning

Figure 2 presents the effectiveness of techniques for parents to help their children's at-home education. The parental encouragement strategies for learning at home are helping with homework, time management support, emotional support, monitoring progress, and technological support. The below perceptions of parents, teachers, and students demonstrate how these strategies were increasing the children's AS. From the perspectives of parents, ``When I help my child with homework, they complete it easily; I provide the time management support for my child by assisting his home-based school activities; my emotional support reduces my child's negative thinking over education; my regular monitoring progress increases my child's academic performance; when I offer technological support, my children start to learn new things and easily complete their ssignments." The teacher mentions, "I notice that parents support in homework activities, their time management support, and their emotional support always motivate students to engage in learning. I notice that regular monitoring processes and providing technology support for students exhibit high scores when compared with the children who did not receive parental support." The student mentions, "I feel more confident when my parents support my homework; I do better managing my studies with the time management support of my parents; their emotional support motivates me, and their regular monitoring of progress encourages me to engage in learning; often my parents provide technology support for learning that stimulates my interest towards learning." The parents', teachers, and students' perceptions show that parental support for home-based learning strategies is increasing the children's educational outcomes.

Challenges in Encouraging Parental Involvement

The degree of PI in the education of their offspring is the most notable factor in young people's academic achievement. Parental activities include helping children with doing their homework, setting up academic goals, discussing with children about the school activities, and teachers about the children's academic progress. Teachers are playing a significant part in supporting PI in the education of their kids. Interviews were conducted with thirty-two teachers to acquire the qualitative data. The study captures the challenges in encouraging PI in the education of children from the viewpoint of the teachers who conducted the interview.

Figure 3 presents the challenges in encouraging PI in children's education. The challenges, such as time constraints, socioeconomic factors, lack of understanding, communication issues, limited school resources, and technology barriers, affect PI in children's education. The below-given teacher's perception and experiences provide a detailed account of the challenges regarding

Figure 3: Challenges in Encouraging Parental Involvement

the PI. The teacher mentions, "I notice some children's parents were too busy in their work schedule; this reduces their time spent with children. I see the lack of parents' socioeconomic status not being affordable to pay the fees and fulfil their children's needs, which affects children's attendance and access to quality education.". The parent education is crucial for children's success. "We are explaining the importance of parental involvement, but there are no educational backgrounds leading to a lack of understanding; often we experience communication issues in contacting them; I have found out that some children's parents point out that limited school resources reduce their children's school attendance rate; parents limited resources in providing technology assistance for their children to discover and expand their knowledge lead to their lack of involvement.".

Negative Effects of Parental Involvement on Academic Success

PI determines the AS of students, but their overdominant involvement often negatively affects the children's AS. Their involvement is sometimes negatively associated with students' poor academic performance. When parents push their interest and expectations on children, it desperately brings tension on studies among children. The qualitative data was collected from 130 students. During the interview with students, the study examines the students' experiences about the negative effects of their PI on AS.

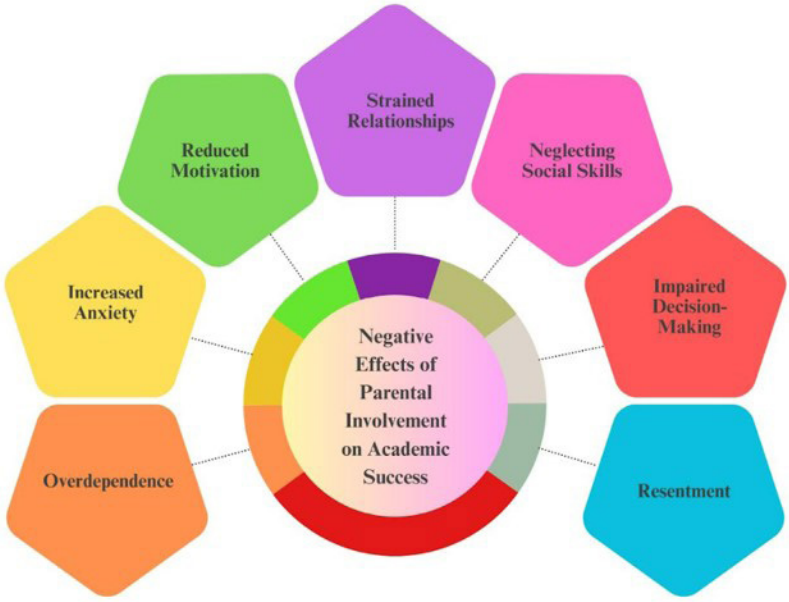

Figure 4: Negative Effects of PI on AS

Figure 4 illustrates the negative effects of PI on the AS of children. During the interview with students, the study found that overdependence, increased anxiety, reduced motivation, strained relationships, neglecting social skills, impaired decision-making, and resentment are the negative effects created on children's AS because of PI. The below-given student's experiences show the negative effects of PI on their AS."My parents always support me in doing my homework activities, which affects my self-thinking. This makes me over-reliant on my parents for doing homework activities". "My parent's support increased my anxiety while doing any work independently and increased my overdependence on my parents." "My parent's engagement leads to disinterest in doing school projects by giving low motivation." "My parent's expectations, attitudes, thinking, and beliefs over my study plans caused our relationship to become strained; "My parents always push me to study, and they do not allow me to play outside the home and talk with my friends; this reduces my communication skills with others." "My parents take all the decisions regarding my studies; they set the study goal for me; thus they impair my decision-making." "They are scolded and give me punishment whenever I make mistakes; this makes me angry and displeased with my studies.".

Quantitative Results

The quantitative data was collected through questionnaires from 425 parents and 110 teachers. The questionnaire answers inform the positive effects of PI on children's AS. In exploring its positive effect, the study suggests implementing parental central programs for involving parents in children's educational processes. Quantitative analysis, such as cross-correlations, measures the correlation among study variables, while average variance extracted (AVE) measures the validation of constructs, and composite reliability (CR) measures the consistency between the study variables. Cross-loading indicates the high loading correlation among the study variables. This analysis presents how PI is influential in developing students' academic outcomes.

Measurement Model

The measuring model is a procedure for assessment to confirm the correlation and consistency of study variables. In this study, the AVE threshold value is >0.5 (dos Santos & Cirillo, 2023), and CR is implemented as >0.700 as a threshold value, respectively (Cheung *et al.*, 2023), which measures the amount of variance and consistency. The cross-correlations measure the correlations between the study variables.

Table 6 presents the cross-correlation analysis among study variables, with AVE and CR. In this study, the AVE and CR show how consistent and reliable study variables are in assessing the effect of PI on kids' academic performance. The cross-correlation analysis is the correlation between the study variables in examining the children's AS. Construct AP exhibits a high correlation (coefficient) between the ME and of 0.45, indicating that children's AP is influenced by the motivation provided by the parents and the regular engagement, a value of AVE 0.64, CR 0.86, indicating that AP is consistent.

Table 6: Cross Correlations, AVE and CR

Constructs	Cross correlations						AVE	CR
	AP	ME	IA	DPA	BD	PI		
AP	1						0.64	0.86
ME	0.45	1					0.72	0.73
IA	0.38	0.58	1				0.67	0.88
DPA	0.27	0.43	0.49	1			0.58	0.83
BD	0.32	0.51	0.55	0.37	1		0.62	0.94
PI	0.41	0.62	0.47	0.29	0.41	1	0.79	0.85

With a coefficient of 0.58, the variable ME has a strong positive association with IA. It also notes that motivation enhanced the children's regular attendance rate and decreased dropout rates. The values of AVE 0.72 and CR 0.73 demonstrate a high degree of consistency and dependability. With a coefficient of 0.55, Construct IA shows a substantial correlation with BD, suggesting that children's conduct and discipline affect their attendance level. The values of AVE 0.67 and CR 0.88 demonstrate the analysis's consistency and dependability. With a coefficient of 0.37, construct DPA exhibits a good association with BD, suggesting that students' DPA behaviour toward learning, as evidenced by its AVE of 0.58 and CR of 0.83, displays the variable's consistency and variance. With a coefficient of 0.41, the variable BD exhibits a substantial association with PI, suggesting that student BD at schools influences PI. A CR of 0.94 and an AVE score of 0.62 demonstrate the study variable's consistency. Construct PI has a considerable positive link and consistency with all the study variables, as seen by its strong correlation with all variables, which ranges from 0.29 to 0.47, with an AVE of 0.79 and CR of 0.85.

Table 7 presents the cross-loading analysis result of the study variables. The cross-loadings analysis was used to assess discriminant validity. The degree of variation between variables and the other factors is displayed by discriminant validity. This cross-loading analysis is used to analyse whether the variable's item loading values are greater when compared to all of its cross-loadings with additional factors. The greater observed values of the variables than the cross-loading values with other variables support the discriminant validity. The variables are AP, ME, IA, DPA, BD, and PI. Under the constructs of AP, the items AP1, AP2, and AP3 exhibit observed values of 0.802, 0.754, and 0.783, which indicates that observed values are higher than the values of cross-loading with additional variables.

Table 7: Cross-Loadings

Item	AP	ME	IA	DPA	BD	PI
AP1	0.802	0.312	0.463	0.563	0.575	0.656
AP2	0.754	0.296	0.462	0.523	0.367	0.546
AP3	0.783	0.365	0.596	0.432	0.426	0.234
ME1	0.438	0.854	0.369	0.658	0.369	0.348

ME2	0.378	0.825	0.258	0.505	0.456	0.687
ME3	0.328	0.802	0.169	0.463	0.563	0.631
IA1	0.421	0.286	0.904	0.356	0.542	0.453
IA2	0.428	0.584	0.878	0.283	0.342	0.321
IA3	0.387	0.396	0.856	0.569	0.456	0.543
DPA1	0.312	0.476	0.496	0.753	0.456	0.453
DPA2	0.588	0.548	0.438	0.721	0.3758	0.342
DPA3	0.456	0.356	0.258	0.702	0.351	0.653
BD1	0.545	0.284	0.369	0.340	0.852	0.327
BD2	0.620	0.463	0.658	0.456	0.807	0.462
BD3	0.425	0.358	0.561	0.365	0.759	0.562
PI1	0.687	0.296	0.456	0.565	0.343	0.802
PI2	0.576	0.546	0.386	0.326	0.238	0.822
PI3	0.503	0.325	0.345	0.256	0.283	0.759

The variable items ME1, ME2, and ME3 show the observed values of 0.854, 0.825, and 0.802, indicating that observed values are higher than the other variables. The variable IA items IA1, IA2, and IA3 observed values of 0.904, 0.878, and 0.856 are higher than the cross-loading values of AP, ME, DPA, BD, and PI. The items DPA1, DPA2, and DPA3 values of 0.753, 0.721, and 0.702 are higher than the cross-loading values of other variables such as AP, ME, IA, BD, and PI. BD1, BD2, and BD3 observed values of 0.852, 0.807, and 0.759 are higher than the cross-loading values of other variables. PI1, PI2, and PI3 observed values are 0.802, 0.822, and 0.759, which are higher than the cross-loading values of other variables. This analysis demonstrates that each variable's observed values are higher and more reliable than the cross-loading values with other variables.

Structural Model

Table 8 presents the structural path analysis result of the study variables. This analysis examines the path coefficient of each study variable. HI exhibits a path from PI to AP with a p-value of 0.012, a t-value of 2.345, and a beta coefficient of 0.489*, indicating that academic performance is enhanced by high levels of PI in support of children's studies. With a beta coefficient of 0.534, a t-value of 2.678, and a p-value of 0.005, H2 illustrates the route from PI to ME, showing that greater PL develops children's motivation towards engaging in educational activities.

Table 8: Structural Path Analysis Result (Hypothesis testing)

Hypothesis	Relationship	Beta (β)	t-statistics	p-value
H1	PI→AP	0.489*	2.345	0.012
H2	PI→ME	0.534**	2.678	0.005
H3	PI→IA	0.453*	2.123	0.031
H4	PI→DPA	0.512*	2.456	0.017
H5	PI→BD	0.653**	3.098	0.001

*Note: **p<0.01, *p<0.05*

H3 exhibits a path from PI to IA, with a t-value of 2.123, a p-value of 0.031, and a beta coefficient of 0.453*, which suggests that PI actions like keeping an eye on kids' development and making sure they participate in educational activities raise kids' attendance rates and lower dropout rates. With a beta coefficient of 0.512*, a t-value of 2.456, and a p-value of 0.017, H4 shows a path from PI to DPA and suggests that PI helps kids have positive attitudes toward learning. With a beta coefficient of 0.653**, a t-value of 3.098, and a p-value of 0.001, H5 shows a path from PI to BD, indicating that PI enhances students' classroom and school-related behaviour and discipline.

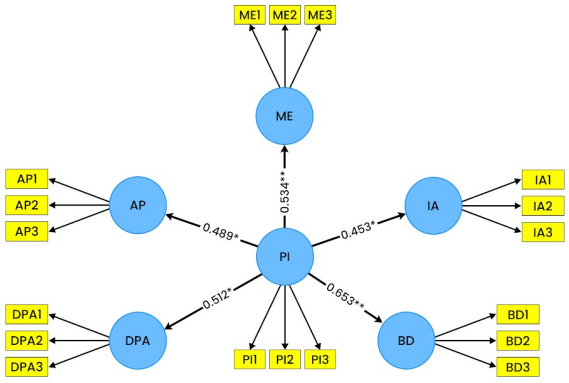

Figure 5: Structural Model Assessment

Figure 5 presents the structural model assessment of study variables and their paths and values. The variable PI shows three items, such as PI1, PI2, and PI3. The variable AP exhibits a path from PI with a path value of 0.489* and exhibits three items of AP1, AP2, and AP3, which examined the PI's impact on children's AP. The variable ME exhibits a path from PI with a coefficient of 0.534**, then shows items of ME1, ME2, and ME3, which shows how PI increases children's ME levels in educational activities. Variable IA presents a path from PI with a path coefficient of 0.453*, and presents the items of IA1, IA2, and IA3, which show how PI increases children's school attendance and reduces dropout. Variable DPA expresses a path from PI with a coefficient of 0.512*, with items of DPA1, DPA2, and DPA3 that show how PI is associated with the DPA among children. BD expresses a path from PI, a path value of 0.653**, and gives the items of BD1, BD2, and BD3, showing the PI correlation with BD among children.

Discussion

PI is a determinant of children's AS. It is part of the duty of every parent to be involved in their child's educational development. They are involved in every facet of the intellectual, social, emotional, and cognitive growth of pupils. A wide range of parental support and expectations promotes children's involvement in education. Therefore, the study aims to analyse the impact of PI on their children's AS. The study findings demonstrate how PI has improved their kids' academic performance. The results of the study show that a high degree of PI correlates with children's improved academic performance. Ogg & Anthony (2020) mention home-based PI and their warmth; their socioeconomic status develops students' skills, reading, and writing; meanwhile, parents' socioeconomic status affects the children's AS. Wang *et al.* (2023) show that PI is directly connected with children's learning outcomes. Therefore, the study denotes that PI and their high level of presence positively impact children's academic performance, but the study does not mention the parent's socioeconomic status impact specifically. The study findings mention that PI enhanced children's motivation and increased their engagement in educational activities. Rubach & Bonanati (2023) highlight that PI in homework activities, meeting the needs of students, supports the students and reduces their anxiety level in studies. Moè *et al.* (2020) indicate that decreasing the stress student level and monitoring the psychological condition of the students at home increases students' engagement in school-based activities. This aligns with the present study's findings by mentioning the greater role of PI in enhancing motivation and learning engagement among children. The study findings demonstrate that children who have more involved parents demonstrate improved attendance and reduced dropout rates when compared to parents with less involvement. Yulianti *et al.* (2022) state that volunteer parental involvement in their kids' educational activities encourages the children's participation in education regularly. Bell (2020) states that school management activities such as giving respect to the parent's voices and children without any discrimination and reducing the punishment level promote students' attainment in school. Hence the research highlights the significance of parent-centred programs in developing the student's involvement level. The study findings highlight that PI is positively associated with developing the children's positive attitudes toward learning among children. Yang *et al.* (2023) present those different forms of PI, such as academic support and communication with teachers, which develop children's active participation and positive attitudes toward learning. Ribeiro *et al.* (2021) demonstrate the importance of parents' attention in regularising the student's classroom attendance, their learning engagement, and shaping their behaviour toward learning. This aligns with the present study by mentioning that PI attitudes, motivation, and interaction develop children's positive attitudes toward learning. The study findings show that PI positively correlates with the children's school behaviour and discipline. Tan *et al.* (2020) highlight that parents' socioeconomic condition and education are strongly connected to their kids' language development and success in education. Li *et al.* (2020) state that family economic conditions and parents' educational levels determine the student's discipline and behavior. Hence the present study findings indicate that PI in education supports the child's learning, and teaching values develops students' discipline and moral behavior. While comparing the previous studies, the present study's findings correspondingly demonstrate that PI shows promising benefits for children's AS by providing home-based support, motivation, and regular participation in school activities. Previous studies by Tan *et al.* (2020) and Li *et al.* (2020) mention that parent-child socioeconomic background and education level determine the children's AS, discipline, and educational activities participation. By contrast, the present study's findings did not show that parents' economic backgrounds and their education reduced the children's AS; nevertheless, the study demonstrates that these elements have an impact on the PI with children's academic outcomes.

Implications

The study examining the effect of PI on kids' academic performance has several theoretical and practical implications in the field of education. The study discovers the positive benefits of PI on children's education for enhancing their academic performance level. This study result is essential for encouraging the parent's participation and upgrading children's skills and knowledge. Besides that, the study suggests providing parent-centred programs to inform their role and their significance in shaping their kids' educational goals.

Theoretical Implications

PI is seen as essential to supporting children's learning in school and the academic achievement of children.

The theoretical framework of the study shows PI is a multidimensional phenomenon of establishing and extending children's learning outcomes. The study focuses on the PI in the education of their children, which contributes to enhancing educational outcomes. The study findings relate to several theories. The study shows that PI determines the academic performance of the children by providing motivation and support, and they affect the educational outcomes. This is connected with the Ecological System Theory, which indicates that parents are the social and environmental factors in increasing children's learning outcomes. Next, this study also associates utilising the Social Learning Theory, which suggests that pupils acquire positive attitudes by observing their parent's activities such as dedication to work, discipline, behaviour, and positive attitudes. This deepens the children's good behaviour and their mentality on pursuing the education. In addition, the study is coupled with the theory of self-determination, which says parents' motivation and home-based activity support develop children's autonomy and decision-making. In this study parent-child interaction also constructs children's knowledge and builds their self, encouraging their participation in school programs; thus they build self-determination. This research adds to the ecological system theory's implications, social learning theory, and self-determination theory.

Practical Implications

The study has several useful ramifications at the nexus of children's school education. The study has several practical implications and experiences to enhance their kids' academic performance achievement. So it's essential to ensure the PI in education; this suggests implementing school-based initiatives focusing on parents to inform the significance of their involvement in their kids' education activities. The study findings indirectly propose that the teacher support system within the school campus also has a significant and powerful effect on motivating students well in school and regulating their studies. Providing technical support for the children at home by parents reduces their cognitive load and significantly enhances children's learning experiences and outputs. Creating dynamic and interactive learning environments at home caters to the diverse needs and interests of the children, making them more enjoyable towards learning. Participating in school-related events like parent-teacher conferences and collaboration with school teachers aligned with kids' academic development and ensured parents' attendance in education. Thereafter, this study suggests that PI influences are strongly related to paving a better path for their children, which stresses ensuring the parent's participation in educational activities.

CONCLUSION

The study findings demonstrate the beneficial effects of PI on their kids' AS in the framework of education. The research shows that PI expands children's academic performance by providing home-based support. The study shows that parents offer many resources for learning, assist their children in doing homework, and teach them good values, which significantly enhances students' learning experiences, behaviour, and interest. The home-based learning provides greater chances for kids to experience new things and acquire knowledge with the assistance of parents. Through various parental activity forms, this study shows that increased PI significantly improves children's AS. Children with active parents show higher attendance and lower dropout rates, suggesting the importance of the PI factor in developing students' commitment to learning. In addition, their involvement properly maintains the children's behaviour by teaching morals and ethics. The study highlights the significance of PI in fostering a helpful climate for children's AS. The study demonstrates the positive effects of parents' active involvement in their children's schooling through providing social and emotional support for children. Home-based strategies tend to increase the children's beliefs in pursuing academic education and promote their growth. Thus the study advocates for the PI in students' academic achievement and stresses the importance of parent-child interaction, a home environment that is supportive of students' growth, and their participation in school activities.

LIMITATIONS

Despite revealing valuable insights, this study has certain limitations. The study considers PI activities conducted at home and in schools, but it leaves a gap in analysing the factor that affects the PI in the education of their kids both at home and at school. The study mentions that PI in children's homework activities reduces their cognitive load, thereby increasing AS, but the study does not consider the parental education level and economic condition for assisting students in their homework activities. The study does not focus on the specific programs that help to foster parental participation in education. These limitations thereby contribute to future research in the area of education for children and PI on children's education.

Future Scopes

Future studies looking into how PI affects their kids' educational outcomes offer a more comprehensive explanation of the PI in children's educational effects. Future studies examining the implications of PI in education over time on kids' academic outputs suggest implementing initiatives such as parental support programs for increasing PI in education. Future studies pay some attention to ensuring all the parent-teacher interaction about the children's academic progress. This is linked to kids' greater achievement in turn. Investigating the factors associated with the lack of PI in education contributes to taking adequate measures to mitigate the negative consequences related to the lack of PI. These future research insights have been associated with positive outcomes among children.

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APPENDIX

Table A1: Questionnaire for Parents

Section 1
Demographic Details
1. Gender
• Male
• Female
2. Age
• 20-29 years
• 30-39 years
• 40-49 years
• 50 years and above
3. Education Level
• High School
• Bachelor's Degree
• Master's Degree
• Doctorate
4. Employment Status
• Employed Full-time
• Employed Part-time
• Unemployed
• Self-employed
• Homemaker

5. Age of Children	
• 5-7 years	
• 8-10 years	
• 1-13 years	
• 14-16 years	
6. Are you willing to participate in an interview on the impact of PI on their children's AS?	
• Yes	
• No	
Instruction: Participants are requested to indicate their level of agreement with the questions below using the following scale:	
1 - Strongly Disagree	
2 - Disagree	
3 - Neutral	
4 - Agree	
5 - Strongly Agree	
Construct	**Questions**
Parental Involvement (PI)	How often do you help your child with their homework?
	How frequently do you attend parent-teacher meetings and school events?
	How regularly do you communicate with your child's teachers about their progress?
Academic Performance (AP)	In your opinion, has your child's academic performance improved due to your involvement?
	Do you believe your child performs better academically because of your support?
	How likely is it that your child completes their assignments with your help?
Motivation and Engagement (ME)	Does your involvement increase your child's interest in school activities?
	Is your child more motivated to learn because of your support?
	How much does your child participate in class when you are engaged in their education?
Improved Attendance (IA)	Has your child's school attendance improved due to your involvement?
	How likely is it that your child misses school when you are involved in their education?
	Do you ensure your child attends school regularly?
Development of Positive Attitudes (DPA)	Has your child developed a more positive attitude towards school because of your involvement?
	Does your support help your child enjoy learning more?
	How much does your child look forward to attending school because of your engagement?
Behavior and Discipline (BD)	Does your child exhibit better behavior at school because of your involvement?
	How much has your child's discipline improved due to your support?
	How consistently does your child follow school rules when you are engaged in their education?

Table A2: Questionnaire for Teachers

Section 2
Demographic Details
1. Gender:
• Male
• Female
2. Age:
• 25-34 years
• 35-44 years
• 45-54 years
• 55-64 years
3. Teaching Experience:
• Less than 5 years

• 5-10 years	
• 11-20 years	
• More than 20 years	
4. Educational Level:	
• Bachelor's degree	
• Master's degree	
• PhD or higher	
5. Classes Teach:	
• Kindergarten	
• Elementary School	
• Middle School	
• High School	
6. Are you willing to participate in an interview on the impact of PI on their children's AS?	
• Yes	
• No	
Instruction: Participants are requested to indicate their level of agreement with the questions below using the following scale:	
1 - Strongly Disagree	
2 - Disagree	
3 - Neutral	
4 - Agree	
5 - Strongly Agree	
Construct	**Questions**
Parental Involvement (PI)	How effective do you find PI in supporting students' academic progress?
	To what extent do you believe PI positively influences students' educational outcomes?
	How often do you observe parents actively engaging in discussions about their child's learning progress with you?
Academic Performance (AP)	Do you notice a correlation between higher levels of PI and improved academic performance among students?
	In your opinion, does parental support significantly contribute to students' academic achievements?
	How often do you see parents reinforcing the importance of education at home, which impacts students' academic performance?
Motivation and Engagement (ME)	Do students with involved parents demonstrate higher motivation levels in-class activities?
	How much do you think PI enhances students' engagement in educational tasks?
	Have you observed that students with supportive parents are more likely to participate actively in classroom discussions and activities?
Improved Attendance (IA)	How does PI impact students' regular attendance at school?
	Do you believe that consistent parental communication helps improve students' attendance rates?
	How often do you see parents ensuring their children attend school regularly?
Development of Positive Attitudes (DPA)	To what extent does PI foster positive attitudes toward learning among students?
	Have you noticed that students with supportive parents tend to have more positive attitudes toward school activities?
	How important do you believe parental encouragement is in developing positive attitudes in students?
Behavior and Discipline (BD)	Does PI positively influence students' behavior in your classroom?
	How much do you think parental support affects students' discipline at school?
	In your experience, how consistent are students in following school rules when parents are actively involved?

Table A3: Sample Interview Questions

Questions
Interview Questions for Parents:
1. How often do you engage in your child's homework and school activities?
2. What methods do you use to motivate your child to excel academically?
3. How do you communicate with your child's teachers about their progress?
4. In what ways do you support your child's learning at home?
5. How do you monitor your child's attendance and punctuality at school?
6. What strategies do you use to encourage a positive attitude towards school in your child?
7. How do you address behavioral issues that your child may exhibit at school?
8. Can you describe any changes in your child's academic performance since becoming more involved in their education?
9. How do you balance your work and other responsibilities with supporting your child's education?
10. What challenges do you face in staying involved with your child's school activities?
11. How do you help your child prepare for exams and other academic assessments?
12. How do you handle conflicts or disagreements with your child's teachers?
13. What role do you think you play in your child's social and emotional development at school?
14. What potential negative effects can arise from excessive PIin children's education and how might this impact their AS?
15. What advice would you give to other parents to enhance their involvement in their child's education?
Interview Questions for Teachers:
1. How do you see PI affecting students' academic performance?
2. Have you observed any differences in academic performance between students with highly involved parents and those with less involved parents?
3. How does PI affect students' motivation in the classroom?
4. What strategies involving parents have been most effective in addressing attendance issues?
5. How does PI influence students' attitudes toward learning and school?
6. What are some challenges you've encountered in encouraging parental involvement?
7. What strategies or programs have you found most successful in increasing parental involvement?
8. How do you typically communicate with parents about their child's progress and needs?
9. Have you noticed any new trends or changes in the way parents engage with their children's schooling since the pandemic began?
10. Based on your experience, are there any other significant ways that PI impacts students that we haven't discussed?
Interview Questions for Students
1. In what ways do your parents or guardians support your learning at home?
2. How do conversations with your parents about school or your future affect your attitude toward education?
3. Can you share an experience where your parents' involvement helped you overcome a difficulty at school?
4. How does your parents' involvement in your schooling compare to their involvement in other areas of your life? How does this affect you?
5. How do you think your parents' approach to your education influences your views on learning and your future?