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Investigating the Relationship Between Parental Involvement and Academic Performance of Primary Schools in Jian Hua District, Q City, Hei Longjiang Province, China: From Pilot Study to Correlation Analysis

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ABSTRACT

This study explores the relationship between the level of parental involvement and the academic performance of primary school students in J District, Q City, Heilongjiang Province, China. Adopting a quantitative research approach, data were collected by distributing structured questionnaires to a representative sample of students selected through stratified sampling. This study delves deeply into the key aspects of parental involvement, including emotional involvement, intellectual involvement, and behavioral involvement, and examines the correlations between these aspects and students' academic achievements. Various statistical methods that include as correlation analysis were employed to evaluate the strength and significance of these relationships. The research findings indicate that there is a significant positive correlation between the level of parental involvement and students' academic performance, suggesting that a higher degree of parental involvement is a powerful predictor of students achieving better educational outcomes. These results imply that promoting greater parental involvement and providing relevant guidance can enhance students' learning effectiveness. This study makes contributions to the ongoing discussion on home-school cooperation in the field of education and provides practical suggestions for policymakers and educators to optimize parental involvement in primary education.

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KEYWORDS:

Parental Involvement, Academic Performance, Primary School Education, Double Reduction Policy

1. INTRODUCTION

China introduced the Double Reduction Policy in 2021. The policy aims to promote students' all-round development and physical and mental health by alleviating their academic pressure(General Office of the Communist Party of China Central Committee, 2021). Against the backdrop of the full implementation of the "Double Reduction" policy, the amount of in-school homework and the burden of academic tutoring for students have been significantly reduced. However, after the policy was put into practice, the educational anxiety prevalent among parents has, to some extent, undermined the effectiveness of the burden reduction. Many parents, out of concern for their children's future academic competition, have taken it upon themselves to assign additional homework and arrange various academic tutoring courses for their children. This phenomenon has not only failed to substantially relieve students' actual academic burden but has also given rise to complex tensions between family education and school education. Therefore, exploring the intrinsic relationship between parents' involvement behaviors and students' academic performance is of great significance for optimizing the educational ecosystem and improving the quality of education.

J District in Q City, Heilongjiang Province, China, as the largest district in the city in terms of area and the region with the most abundant educational resources, has gathered high-quality teaching staff and rich educational facilities, providing a typical sample for educational research. The 12 primary schools within the district cover different school-running characteristics and educational levels, and the student groups are diverse and representative. It is worth noting that the parent groups in this area are mostly composed of highly

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educated individuals. They generally attach great importance to their children's education and are deeply involved in all aspects of their children's study and life. They demonstrate a high level of enthusiasm, from supervising daily homework to planning academic tutoring. However, there is still a lack of systematic empirical research on the impact of such intense involvement behaviors on students' academic performance (Qiqihar Municipal Bureau of Statistics, 2022)..

This study focuses on the student groups of the 12 primary schools in J District and attempts to analyze various types of parental involvement through scientific and rigorous research methods. Given the unique educational environment and characteristics of the parent groups in this area, this study will delve deep into the relationship between various types of involvement of highly educated parents in family education and students' academic achievements. It is expected that the research results will provide practical references for educational policymakers, front-line teachers, and the vast number of parents, help build a positive mechanism for home-school collaborative education, effectively implement the "Double Reduction" policy at the family level, and truly achieve the goals of reducing the burden on students and empowering education.

II. LITERATURE REVIEW

The implementation of China's "Double Reduction" Policy has significantly reshaped the educational landscape. A report from the China Institute for Educational and Social Development at Beijing Normal University (Li, 2022) indicates promising outcomes: over 88% of teachers now strictly control written homework volume, 75.3% of students notice a decrease in homework compared to previous semesters, and 83.4% can finish most written tasks at school. The policy aims to ease students' academic burden, adhere to educational principles, and enhance educational quality (Luo & Li, 2023). Tian (2023) found that teachers' increased focus on homework design under the policy positively changed students' attitudes, boosting their achievement and interest, and thus improving academic performance. However, Miao et al. (2023) argue that reducing homework might harm academic results, leaving this relationship inconclusive.

Despite the reduction in school - assigned homework, parental anxiety has led to a surge in "non - school-based homework." Parents often assume dual roles as supervisors and active supporters in homework completion (Jia et al., 2023), raising questions about whether parental involvement modifies the "Double Reduction" Policy's impact.

The policy's crackdown on academic tutoring institutions has also caused parental distress Liu, (2022) notes that parents lose the psychological comfort associated with arranging tutoring, while Ke et al. (2023) point out that the policy fails to ease college entrance exam pressure, increasing confusion about the impact of eliminating tutoring on academic performance. This has led to the "underground" resurgence of tutoring, with unregulated channels like private tutors and online training emerging, and escalating tutoring fees (Cai & Zheng, 2024; Guo & Li, 2023).

Previous research has shown conflicting views on parental involvement. Some studies (Hakyemez-Paul, 2020; Y. Zhang, 2022) emphasize its positive influence on students' well - being and academic success, while others (Lareau, 2019; Xiong, 2023; W. Zhang, 2021) highlight potential negative consequences. Given China's unique educational context, especially post - "Double Reduction," understanding how parental involvement affects students' academic performance is crucial. This review underscores the need for further research to clarify these complex relationships and guide educational policies and practices.

Therefore, this study aims to fill this research gap and focuses on exploring the impact of Chinese parents' involvement on students' academic performance after the implementation of the "Double Reduction" policy. Through a systematic analysis of relevant data, this study expects to clarify the mechanism of the role of parents' involvement under the new education policy, and provide valuable references for optimizing educational strategies and promoting the all-round development of students.

III. RESEARCH METHOD

This study employs a quantitative research method to explore the relationship between parental involvement and academic performance of primary school students in J District, Q City, Heilongjiang Province, China. This study uses Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to validate the measurement structure of the independent variable "parental involvement", so as to ensure the reliability and validity of the research model.

In this study, the collected data is first processed to address issues such as missing values, response bias, outliers, normality, multicollinearity, and common method bias. After confirming all dimensions of the questionnaire, a practical test is carried out. The measurement model is validated through reliability, convergent validity, and discriminant validity tests to ensure that the variable structures can be accurately measured in the pilot study. The study further examines the factor structure of each variable structure through Confirmatory Factor Analysis (CFA). This study uses SPSS (Statistical Package for the Social Sciences, Version 21.0) for descriptive analysis and correlation analysis to determine the relationship between various dimensions of "parental involvement" and "academic performance", and then conducts structural equation modeling analysis to identify the most influential dimension.

Determining an appropriate sample size is crucial for the validity of this study. A sample is a collection of a part of elements drawn from the population in a certain way. Since this study aims to investigate primary school students in J District, Q City, Heilongjiang Province, China, all primary school students (15,613 in total) from 12 primary schools in J District and their parents are regarded as the population in this paper. According to the formula for calculating the sampling size proposed by Krejcie and Morgan (1970), this study needs to select 375 participants as the research sample. Kang (2021) believes that during the research process, it is inevitable that some subjects will withdraw or fail to comply with the research protocol. Therefore, the drop-out rate should be considered when calculating the sample size. The expected drop-out rate during the research process is 20% (0.2). Since the expected sample size of this study is 375, 20% of 375, which is 75 people, should be considered as the number of potential drop-outs. So, taking into account of this possibility, the final determined sample size is 375 + 75 = 450 people.

This study utilizes the "Parental Educational Involvement" scale developed by Song (2010). This scale refers to the three-dimensional structure division of parental educational involvement proposed by Grolnick & Slowiaczek, (1994), and uses a Likert 5-point scale. Parental educational involvement is specifically divided into three dimensions: emotional, intellectual, and behavioral management involvement. Song designed two sets of questionnaires, one for parents and one for guardians. Wang (2022) combined Song Bing's two sets of questionnaires into one set. This study uses this adapted version. The questionnaire measures parental involvement from three dimensions: the emotional involvement dimension focuses on parents' communication, motivation, guidance, and problem-solving with their children, covering 6 questions (Questions 11, 13, 16, 17, 20, and 21); the intellectual involvement dimension pays attention to parents' behaviors such as providing learning materials, participating in family education activities, tutoring homework, and hiring tutors, with a total of 9 questions (Questions 1, 2, 4, 6, 7, 10, 14, 15, and 19); the behavioral control involvement dimension mainly involves parents' management of their children's entertainment, daily routines, and social interactions, including 6 questions (Questions 3, 5, 8, 9, 12, and 18).

The dependent variable in this study was students' academic performance. Many scholars have used final examination scores as a measure of academic performance (Cheng, 2021; Wu, 2021; C. Xu, 2022; Y. Xu, 2021). For this study, the performance is measured using final test scores at the end of each semester. This includes grades in three subjects: Chinese, Mathematics, and English. All three subjects' grades were based on a percentage system, with one hundred points being a perfect score and sixty points being a passing grade.

Before data collection, permission and consent of the principals and teachers of 12 primary schools were sought and obtained. The field study was conducted in November 2024, and a pilot study was carried out before that. The data was collected from students and their parents in 12 primary schools in J District, Q City, Heilongjiang Province, China. The respondents were selected by stratified random sampling, and the students who participated in the pilot study were excluded from the sampling frame of the field study.

Before analyzing the data, the researchers carefully collected and examined all the questionnaires from the field study. First, the response rate of the field study was calculated. Among the 450 questionnaires distributed and collected, 438 were confirmed to be valid, with a response rate of 97%. According to Babbie (2020), a questionnaire response rate of 50% is sufficient, 60% is good, and above 70% is excellent. The sample size of 438 is much higher than the 375 students recommended by Krejcie and Morgan, so it is considered sufficient for the field study.

IV. RESEARCH FINDINGS

Pilot Study

Kyriazos (2018) believes that the pilot sample size should use 10% or 20% of the full survey sample size, or at least 30-50 respondents. Anuar et al. (2023) argued that the sample size of a pilot study should be more than 100. Taking into account that there may be missing values and outliers caused by parents who do not fill in the form carefully, 150 participants were selected as the sample size for the pilot. As such, 150 questionnaires were distributed. Due to 15 sets which had missing values, only 135 were considered valid questionnaires.

The first step of a pilot study is to test the reliability of the measurement instrument. For this, the Cronbach's alpha values were used. As can be seen from Table 1, the αvalues for all three dimensions are between 0.874 and 0.922. Cohen et al. proposed thatαcoefficient values of less than 0.6 as not acceptable; values between 0.60 and 0.69 as minimally acceptable; values between 0.70 and 0.79 as acceptable; values between 0.80 and 0.90 as good; and values above 0.90 as very good (Cohen et al., 2018). As the values are all above 0.70, the instrument can be deemed to be acceptable.

Table 1 Reliability Analysis of Pilot Data (135)

Variable / Dimension	No. of Items	Cronbach's Alpha
Parental Involvement (PI)	21	0.919
EI: Emotional Involvement	6	0.875

Variable / Dimension	No. of Items	Cronbach's Alpha
II: Intellectual Involvement	9	0.922
BI: Behavior Involvement	6	0.874

As can be seen from Table 2, the CITC values of the analysed items are all greater than 0.4, which indicates that there is a good correlation between the analysed items, and at the same time, it also indicates that the level of reliability is good. To sum up, the reliability coefficient value of the research data is higher than 0.9, which comprehensively indicates that the data reliability is of high quality and can be used for further analyses. Since this questionnaire using the three dimensions mentioned earlier, a reliability analysis was also conducted for each item according to the scale dimensions.

Table 2 Reliability Analysis of Parental Involvement

Item	Corrected Item-Total Correlation (CITC)	Cronbach's Alpha if Item Deleted	Cronbach's α
EI1	0.556	0.916	
EI2	0.488	0.917	
EI3	0.571	0.915	
EI4	0.610	0.914	
EI5	0.486	0.917	
EI6	0.589	0.915	
II1	0.674	0.913	
II2	0.614	0.914	
II3	0.631	0.914	
II4	0.630	0.914	
II5	0.601	0.915	0.919
II6	0.673	0.913	
II7	0.576	0.913	
II8	0.593	0.915	
II9	0.637	0.914	
BI1	0.557	0.916	
BI2	0.531	0.916	
BI3	0.531	0.916	
BI4	0.526	0.916	
BI5	0.531	0.916	
BI6	0.489	0.917	

Note: Standardised Cronbach alpha coefficient = 0.919

To test validity of the instrument for parental involvement, the pilot study used Exploratory Factor Analysis (EFA), using Principal Component Analysis (PCA) with Varimax rotation to identify the underlying structure of the constructs. Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity were also used to ensure data suitability for factor analysis. Factors with eigenvalues greater than 1 are retained, and items with factor loadings below 0.5 are removed to improve construct validity.

This study used 21 items to assess students' parental involvement. The three dimensions that were initially used to measure students' parental involvement were (a) emotional involvement containing 6 items, (b) intellectual involvement containing 9 items each, (c) behavioral involvement containing 6 items. The total number of items is 21. From Table 3, it can be seen that the KMO value of is 0.909 and the approximate chi-square value of Bartlett's test of sphericity is 1788.888. With a df=210 and p of less than 0.000, the results show suitability for a factor analysis.

Table 3 KMO and Bartlett's Test of Parental Involvement

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.909
Bartlett's Test of Sphericity	Approx. Chi-Square	1788.888
	df	210
	Sig.	0.000

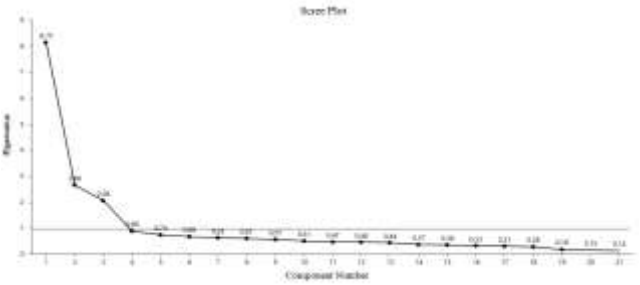
The next step involved factor analysis and maximum variance rotation which were used to extract the factors and remove any unacceptable items. Table 4 presents the results of the 21 items under parental involvement, showing the analysis on factor extraction and the amount of information extracted from the factors. It can be seen that the factor analysis extracted a total of three factors with eigenroot value of greater than 1. The variances explained by the rotation of these three factors are 24.972%, 18.279%, and 18.052% respectively, and the cumulative variance explained by the rotation is 61.302%.

Table 4 Total Variance Explained for Parental Involvement

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.151	38.814	38.814	8.151	38.814	38.814	5.244	24.972	24.972
2	2.662	12.675	51.489	2.662	12.675	51.489	3.839	18.279	43.251
3	2.061	9.813	61.302	2.061	9.813	61.302	3.791	18.052	61.302

Figure 1 depicts the analysis from the factor extraction situation, as well as the factor extraction eigenroot situation. As can be seen, the factor analysis has extracted a total of three factors with eigenvalue greater than one.

Figure 1 Scree Plot of Parental Involvement



Parallel analysis was used to provide stronger justification for the number of dimensions to be retained. Similar to the findings of the scree plot, the parallel analysis confirmed three factors. As can be seen from Table 5, the eigenvalue of the first factor in the actual data is 8.15, the second is 2.66,and the third is 2.06. In the stimulative data set, the eigenvalues of the first to the third factor are 1.79, 1.54, and 1.36. As the values for the first three components in the simulative data are lower than the actual data, this confirms that three components can be accepted for the parental involvement variable. The fourth factor is rejected since the eigenvalue of the fourth factor (0.89) in the actual data set is lower than the simulative data (1.19).

Table 5 Parallel Analysis for Parental Involvement

Component Number	Actual Eigenvalue from PCA	Criterion Value from PA	Decision
1	8.15	1.79	Accept
2	2.66	1.54	Accept
3	2.06	1.36	Accept
4	0.89	1.19	Reject

The rotated component matrix results of the parental involvement construct with 21 items revealed a three-component solution. Table 6 depicts the results of the validity analysis of the pilot study shows that the commonality of the II7 item of this parental involvement scale is less than 0.248 and the complement belongs to any of the dimensions that we set up before the analysis. This part of the questionnaire needs to be adjusted by deleting the item II7.

Table 6 Rotated Component Matrix of Parental Involvement

Item	factor loading factor		
	Factor 1	Factor 2	Factor 3
II1	0.922		
II2	0.783		
II3	0.762		
II4	0.72		
II5	0.718		
II6	0.744		
II7	0.248		
II8	0.701		
II9	0.81		
BI1		0.916	
BI2		0.719	
BI3		0.722	
BI4		0.721	
BI5		0.725	
BI6		0.674	
EI1			0.908
EI2			0.669
EI3			0.724
EI4			0.671
EI5			0.715
EI6			0.755

The EFA results for the parental involvement questionnaire showed the 20 items fall under three dimensions, namely Contents of the Intellectual Involvement (II), Behavior Involvement (BI) and Emotional Involvement (EI). These are used to proceed to the next level of analysis for this research, which is the Confirmatory Factory Analysis. .

Under the framework of this study, the construct of Parental Involvement (PI) is composed of three dimensions: Emotional Involvement (EI), Intellectual Involvement (II), and Behavioral Involvement (BI). These dimensions were constructed to comprehensively evaluate the levels, patterns, and degrees of activeness of parental involvement. In this analysis, multi-dimensional observed variables were employed to quantify each sub-dimension, forming a total of 20 measurement indicators: the Emotional Involvement dimension covers 6 items, the Intellectual Involvement dimension includes 8 items, and the Behavioral Involvement dimension sets 6 items.

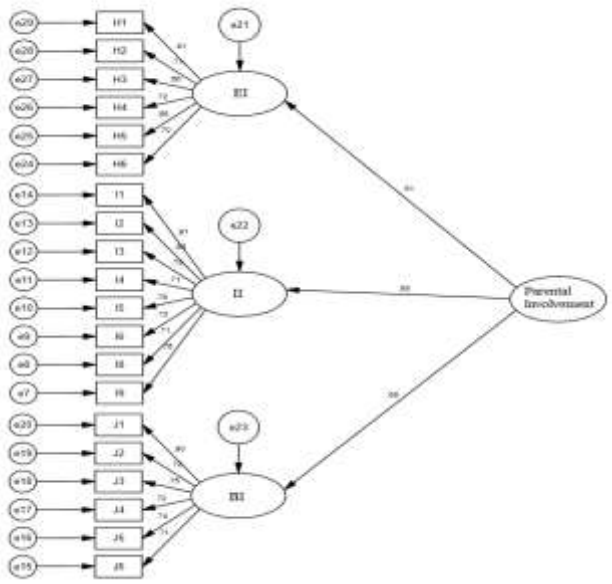
Confirmatory Factor Analysis (CFA)

Among the 450 questionnaires distributed and collected, 438 were confirmed to be valid. To ensure that this construct would be applicable to subsequent in-depth analysis, Confirmatory Factor Analysis (CFA) was applied to examine

its underlying structure, with a focus on verifying the corresponding relationships between the observed variables and the three latent variables. As a core method for validating measurement validity, Confirmatory Factor Analysis evaluates the goodness-of-fit of the model, systematically verifying the degree of match between the theoretical hypothesis and the actual data, thus providing a quantitative basis for the scientific nature of the measurement indicators and the feasibility of subsequent research.

Figure 2 is the initial measurement model for parental involvement. According to Hair et al. (2010) the factor loadings of variables may need to reach 0.5 or higher to be significant.

Figure 2 Measurement Model for Parental Involvement



The model fit indices presented in Table 7 indicate that the majority of the fit indices meet the acceptable standards, suggesting that the model demonstrates a good fit and the analysis results are reliable and valid for reference. As can be seen from Table 7, there are no items that need to be deleted. Therefore, the initial measurement model is the final measurement model.

Table 7 Model Fit Indices

Indicator category	Indicator name	Adaptation Standards	Test results	Acceptability
Absolute fitness parameter	GFI	>0.8	0.948	Accepted
	AGFI	>0.8	0.934	Accepted
	RMSEA	<0.08	0.033	Accepted
Chi-Square	P-value	>0.05	0.00	Accepted
Chi-Square	Chisq/df	<3.0	1.82	Accepted
Value-added fitness parameters	NFI	>0.8	0.948	Accepted
	TLI	>0.8	0.980	Accepted
	IFI	>0.8	0.982	Accepted
	CFI	>0.8	0.982	Accepted
	RFI	>0.8	0.941	Accepted
Simple fitness parameter	CMIN/df	<3	1.49	Accepted
	PGFI	>0.5	0.754	Accepted

A construct is considered to have achieved convergent validity when its Average Variance Extracted (AVE) value exceeds the 0.5 threshold. Regarding the determination of Composite Reliability (CR), this research needs to calculate the CR value for the Entrepreneurial Intentions construct. For the construct to possess the required reliability, its CR value must be higher than 0.6 (Cheung et al., 2024). As shown in Table 8, the AVE values for the three dimensions of parental involvement are 0.536, 0.564, and 0.578, while the CR values are 0.872, 0.911, and 0.891, all meeting the acceptable standards. Additionally, the factor loadings of each item with its corresponding factor exceed 0.6, indicating a strong relationship between the items and their respective factors. These results demonstrate that the convergent validity within each dimension is satisfactory.

Table 8: AVE and CR for Parental Involvement Construct

Factor (Latent Variable)	Measurement Item (Observed Variable)	Factor Loading	Average Variance Extracted (AVE)	Composite Reliability (CR)
Emotional Involvement	EI1	0.906	0.536	0.872
	EI2	0.706		
	EI3	0.657		
	EI4	0.72		
	EI5	0.679		
	EI6	0.696		
	II1	0.912	0.564	0.911
	II2	0.691		

Intellectual Involvement	II3	0.747	0.578	0.891
	II4	0.709		
	II5	0.757		
	II6	0.704		
	II8	0.709		
	II9	0.758		
Behavior Involvement	BI1	0.901		
	BI2	0.719		
	BI3	0.751		
	BI4	0.72		
	BI5	0.744		
	BI6	0.708		

Pearson correlation analysis is a statistical method used to study the linear relationship between two variables. It can help researchers understand whether there is a linear relationship between the two variables, as well as the direction (positive correlation or negative correlation) and strength of the relationship. This study sought to determine whether there is a relationship between Parental Involvement (PI) and Academic Performance (AP) among of primary school students in J District, Q City, Heilongjiang Province, China. To determine this, Pearson's correlation analysis was conducted.

Table 9 shows the results of the Pearson correlation analysis used to evaluate the relationship between parental involvement (PI) and academic performance (AP). The data analysis indicates that there is a significant positive correlation between parental involvement and academic performance (Pearson correlation coefficient r = 0.347, p = 0.000 < 0.01). Judging from the value of r, the strength of the relationship between parental involvement and academic performance is relatively strong. Specifically, the higher the level of parental involvement that primary school students in Jianhua District, Q City participate in, the higher their corresponding Academic Performance will be.

Table 9 Correlations between Parental Involvement and Academic Performance

Dimension and Sub Dimensions		Parental Involvement
Academic Performance	Pearson Correlation	0.347**
	Sig. (2-tailed)	0.000
EI	Pearson Correlation	0.171**
	Sig. (2-tailed)	0.000
II	Pearson Correlation	0.293**
	Sig. (2-tailed)	0.000
BI	Pearson Correlation	0.323**
	Sig. (2-tailed)	0.000

* p<0.05 ** p<0.01

Table 9 also presents the Pearson correlations between the sub-dimensions of parental involvement and academic performance. The results indicate that all three dimensions of parental involvement are significantly correlated with academic performance. There is a weak, significant positive correlation between emotional involvement (the emotional involvement dimension in parental involvement, EI) and academic performance (AP) (r = 0.171, p = 0.000 < 0.01). There is a weak, significant positive correlation between intellectual involvement (the intellectual involvement dimension in parental involvement, II) and academic performance (AP) (r = 0.293, p = 0.000 < 0.01). There is a moderate, significant positive correlation between behavior involvement (the behavior involvement dimension in parental involvement, BI) and academic performance (AP) (r = 0.323, p = 0.000 < 0.01).

V. DISCUSSION

These research findings are consistent with previous studies that have explored the influence on students' academic performance. The main results of a research indicate that students with a high level of parental involvement perform better in their studies and achieve higher examination scores in all subjects compared to those whose parents are not involved in their education (Naite, 2021). The research also suggests that parents should actively assist their children in their education both at school and at home, as they are their children's first teachers. Sengonul (2022) also proposed that an increase in parental involvement has a greater impact on children from poor and lower socioeconomic backgrounds. These children can make better use of parental involvement, which to some extent improves their academic performance.

Further analysis of each dimension reveals important insights into how different aspects of parental involvement affect academic performance. Emotional Involvement (EI) in parental involvement has a positive impact on children's academic levels. As Khajehpour (2011) pointed out, there is also a clear positive correlation between parental involvement and academic performance. In addition, as Vahedi & Nikdel (2011) mentioned, if children have caring and capable parents around them and can enjoy a nurturing and moderately competitive family relationship, their academic performance will be significantly improved.

Similarly, the dimension of Intellectual Involvement (II) in parental involvement shows a strong positive correlation with academic performance. Broderick's research found that parents should take the initiative to learn relevant educational knowledge through different means and know how to apply it reasonably in practice (Broderick et al., 2024). Research by Ma et al. (2022) found that parental involvement moderates the relationship between the teacher-student relationship and students' academic performance. A high level of parental involvement in the primary school stage can reduce the impact of a poor teacher-student relationship on students' academic performance (Ma et al., 2022).

Finally, the dimension of Behavioral Involvement (BI) in parental involvement also shows a significant positive impact on academic outcomes. This study places more emphasis on the influence of behavioral involvement in parental involvement on students' academic performance. Tus's (2021) research found that parents' behavioral involvement can promote their children's academic performance. Even during the COVID-19 pandemic, good parental behavioral involvement can help students learn effectively online (Tus, 2021). Kim (2022) found that through a comparative analysis of adolescents of different genders, parents' behavioral involvement has a more obvious impact on the academic performance of male adolescents, and good parental behavioral involvement can better promote students' learning.

This study confirms that parental involvement has a significant impact on the academic performance of primary school students in District J, City Q, Heilongjiang Province, China. Students with more parental emotional involvement, intellectual involvement, and behavioral involvement tend to perform better academically. These research findings are consistent with previous studies (Xue & Zhao, 2023), demonstrating the importance of parental involvement. Parents should pay attention to the correct ways and appropriate frequencies of their involvement in their children's education.

VI. CONCLUSION

This study examined the relationship between parental involvement and academic performance among primary school students in J District, Q City, Heilongjiang Province, China. The findings confirm that parental involvement significantly impacts students' academic performance. Specifically, the three dimensions of parental involvement—emotional, intellectual, and behavioral—all demonstrate positive correlations with academic outcomes. Students whose parents actively engage on these fronts tend to achieve higher scores and exhibit better learning outcomes.

These results align with previous research, reinforcing the crucial role of parental participation in education. Emotional support from parents boosts children's confidence and motivation, while intellectual involvement equips students with necessary learning strategies and helps navigate the teacher-student relationship. Behavioral involvement, in particular, has proven to be a powerful driver of academic success, especially evident among male adolescents and during challenging circumstances.

The study's findings underscore the importance of encouraging parents to adopt diverse forms of involvement in their children's education. By recognizing the multifaceted nature of parental involvement, educators and policymakers can develop targeted interventions to enhance parental engagement, thereby fostering better educational outcomes for primary school students in the region. Future research could explore how cultural and socioeconomic factors moderate the impact of parental involvement, offering more nuanced strategies for improving academic performance.

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