INFLUENCE OF PARENTAL INVOLVEMENT ON THE ACADEMIC PERFORMANCE OF GRADES 1-4 STUDENTS AT QUJING NO. 1 HIGH SCHOOL, YUNNAN PROVINCE

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ARTICLE HISTORY
Received: 19 September 2024 **Revised:** 3 October 2024 **Published:** 17 October 2024

ABSTRACT
The objectives of this study were 1) to study the parental involvement of grades 1-4 at Qujing No. 1 high school, Yunnan province, and 2) to study impact the academic performance of grade grades 1-4 at Qujing No. 1 High School, Yunnan Province. The research methodology was quantitative research. The conceptual framework of this research was applied from parental involvement of Wu Tan's study. The population consisted of 150 senior years in the first semester of the academic year, 2022. The samples of 105 students were determined by Krejcie & Morgan table. The instruments used in this study were 1) the achievement test and 2) a questionnaire form on Parental Involvement. The statistics used for data analysis were percent, mean, standard deviation. The study results revealed that 1) the parental involvement of grades 1-4 at Qujing No. 1 high school, Yunnan province as a whole was at a much level. When considering each aspect from highest to lowest that the parental involvement greatly influences, students' academic performance due to their influence on their children and the expectation of their children's attainment respectively. 2) The results of impacted academic performance of grade grades 1-4 at Qujing No. 1 High School, Yunnan Province found that students perform was higher than academic performance because of the influence of parental involvement was at a much level.
Keywords: Parental Involvement, Academic Performance, Qujing No. 1 High School

CITATION INFORMATION: Shou, Y., & Bhotisarn, P. (2024). Influence of Parental Involvement on the Academic Performance of Grades 1-4 Students at Qujing No. 1 High School, Yunnan Province. *Procedia of Multidisciplinary Research, 2*(10), 46.

INTRODUCTION

Academic achievement disparities among ethnic and minority groups in China have long been a subject of concern, as reflected in recent research. Scholars such as Liyuan (2019) and Silin (2019) have observed that Chinese students from underprivileged backgrounds continue to perform poorly in education, a trend that has persisted for decades. Although these disparities have been evident for many years, recent studies have shed light on the factors contributing to these gaps. The achievement disparity in China is frequently attributed to factors such as poverty, low-quality education, and socioeconomic status, as noted by Chao (2019) and Zhangchao (2019). Zhangchao's study, which utilized a longitudinal sample of 4,000 kindergarten children, revealed that economic and social inequality played a significant role in widening the achievement gap among Chinese students.

Additional research by Zhiyuan (2021), which analyzed a sample of 9,100 eighth-grade students, further confirmed that poverty and low socioeconomic status are closely linked to the academic achievement disparity in China. However, the issue goes beyond economic factors. Studies such as those conducted by Fangfang (2018) and Zhouzhou (2018) highlighted that implicit bias, lack of student motivation, and inexperienced teachers in schools attended by minority students are also key contributors to the achievement divide. In many cases, these factors compound the effects of poverty, making it difficult for students from minority groups to thrive academically.

One crucial factor that has been consistently linked to academic success is parental involvement. Numerous international studies have demonstrated that increased parental engagement significantly enhances children's academic performance and socioemotional development. For instance, Lara and Saracostti (2019) identified various profiles of parental involvement in their study of children in Chile, showing that highly involved parents tend to have children who perform better academically. Similarly, Menheere and Hooge (2010) emphasized the positive impact of parental involvement on children's motivation, achievement, and well-being in school settings. These studies highlight the importance of family involvement in fostering children's academic success.

In China, interest in parental involvement in education has grown in recent years, as research increasingly recognizes its role in academic achievement. Liu, Lin, and He (2020) found that parental involvement positively correlates with students' performance, particularly in math and language subjects. Despite this growing interest, there are still regional disparities in the level of parental engagement, which in turn affects educational outcomes. For example, while some regions exhibit high levels of parental involvement, others, particularly those with lower socioeconomic status, report much lower engagement.

However, despite the significance of parental involvement, there is limited research specifically examining its impact on academic achievement in certain regions of China, particularly in Qujing City, Yunnan Province. This study seeks to address this gap by applying Epstein’s theoretical model to investigate the influence of parental involvement on the academic performance of students in this region. Through this investigation, the study aims to offer insights into how different levels and forms of parental engagement impact students’ academic success in Qujing City.

The disparity in academic achievement among students in Qujing City, particularly those from disadvantaged backgrounds, highlights the need to explore the role of parental involvement in fostering educational success. The problem is that, despite the growing recognition of parental engagement as a key factor in educational success, regional disparities in parental involvement persist, and there is limited data on how this affects academic outcomes in specific regions, such as Qujing City. The purpose of this study is to investigate the relationship between parental involvement and academic achievement in Qujing City, drawing on Epstein's

theoretical framework to explore how various forms of parental engagement contribute to students' performance.

By addressing this gap, the study aims to provide valuable insights for educators, policymakers, and families in Qujing City and similar regions, helping them to understand the critical role of family involvement in improving educational outcomes for all students, particularly those from underprivileged backgrounds.

LITERATURE REVIEWS

The role of parental involvement in enhancing students' academic achievement has been widely explored across various contexts and cultures. Researchers have repeatedly emphasized the positive impact of parental engagement on students' performance, particularly when parents actively participate in both school-based and home-based activities. The review of relevant literature highlights key themes and findings that have emerged from studies on this topic.

1) Parental Involvement and Academic Achievement

Multiple studies have confirmed that parental involvement plays a critical role in students' academic success. Anastasios and Papagiannis (2020), Ntekane (2018), and Vinopal (2018) all reported that when parents engage in school activities, it not only enhances students' academic performance but also boosts teachers' morale. Similarly, Alisoun (2020) and Bonk et al. (2018) found that parental involvement reduces absenteeism, boosts students' confidence, and improves academic outcomes.

Henderson et al. (2020) also observed that parents' active involvement in their children's schooling positively correlates with better academic behavior and classroom engagement. Ilik and Er (2019) and de Oliveira Lima and Kuusisto (2019) provided further evidence, showing that parental support significantly promotes student engagement in classroom activities, enhancing both motivation and academic behavior.

However, researchers have also pointed out the potential downsides of parental involvement. Studies by Barger et al. (2019), Bartolome et al. (2020), and Jabar et al. (2021) indicate that over-controlling or excessively involved parents can negatively impact students' academic freedom, leading to increased anxiety and pressure. These findings suggest that while parental engagement is generally beneficial, there needs to be a balance to avoid placing unnecessary stress on students.

2) Parenting Self-Efficacy and Parental Involvement

A key determinant of parental involvement is parenting self-efficacy, or parents' belief in their ability to support their children's academic success. Shin (2018) conducted a quantitative study with 304 parents in China and found that parenting self-efficacy positively correlated with the level of parental involvement. Parents who felt confident in their ability to contribute to their child's education were more likely to persevere in the face of challenges and to maintain consistent involvement in their children's school activities.

Similarly, Huang et al. (2018) reported that parents with higher self-efficacy were more resilient in overcoming obstacles and actively supported their children's academic endeavors. Valdes-Cuervo et al. (2020) also found a significant link between parenting self-efficacy and parental involvement, suggesting that parents who believed in their capacity to influence their children's success were more engaged in both home-based and school-based activities.

3) Measuring Parental Involvement

Despite the growing body of research on parental involvement, there is still a lack of consistency in how this concept is measured across studies. A variety of quantitative measures have been used to assess levels of involvement, and many studies rely on self-constructed questionnaires to capture parental engagement.

For example, Brody and Flor (1998) focused exclusively on school-based involvement activities such as attending parent-teacher conferences and volunteering in classrooms. Other

studies, including those by Hoover-Dempsey and Sandler (2005), expanded the scope to include home-based activities such as helping with homework, reading with children, and participating in library visits. The lack of standardized measures in parental involvement research creates challenges in comparing findings across different studies, although the general consensus remains that both school-based and home-based involvement are crucial for student success.

4) Parental Involvement and African American Students

Parental involvement is particularly important in the context of African American students, where historical and structural challenges often impede academic achievement. Research has shown that parental engagement can help mitigate some of these barriers by promoting better educational outcomes.

For instance, studies reviewed by Boonk et al. (2021) and Correia et al. (2021) demonstrated that parental involvement can significantly influence African American students' academic success by providing emotional support and reinforcing the value of education at home. These findings suggest that tailored strategies to increase parental engagement in African American communities are essential for improving educational outcomes.

5) Theoretical Framework: Epstein's Model

Many studies investigating parental involvement utilize Epstein's theoretical model, which identifies six key types of involvement that contribute to student success: parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community. This framework emphasizes the multifaceted nature of parental involvement, encouraging both schools and families to work together to promote academic achievement.

In the context of African American students, researchers have highlighted the importance of focusing on home-based involvement, such as assisting with homework and fostering a supportive learning environment, as a key factor in improving performance. Additionally, community-based efforts, such as parent-teacher collaborations and school-community partnerships, are crucial for creating a comprehensive support system for students.

6) The Theory of Academic Performance

Academic performance, as described by Elger (2007), refers to the capacity of students to produce valued outcomes in a learning context. Elger identified six critical factors that influence academic performance:

Level of Knowledge: Mastery of relevant information

Levels of Skills: Practical application of knowledge

Level of Identity: Students' identification with their role as learners

Personal Factors: Motivation, emotional intelligence, and resilience

Fixed Factors: Environmental and inherent characteristics

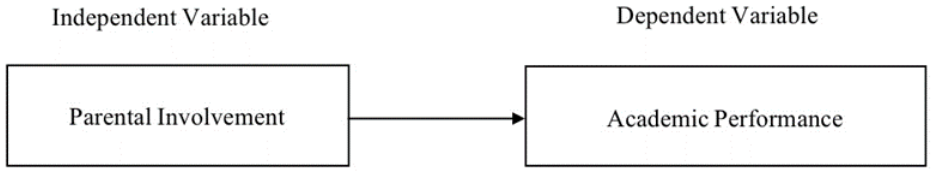
Performer's Mindset: A growth-oriented attitude towards learning

Elger's model suggests that students possess the capacity for outstanding academic accomplishments, provided that they are immersed in an enriching environment and adopt a growth mindset. Parental involvement, as seen through the lens of Elger's theory, plays a significant role in shaping students' academic identities, motivation, and overall performance.

The literature highlights the critical role of parental involvement in shaping students' academic outcomes, particularly among African American and minority students. The research emphasizes the importance of balanced parental engagement that promotes student independence while providing the necessary support for academic success. Parenting self-efficacy emerges as a key factor influencing parental involvement, with parents who feel empowered more likely to engage actively in their children's education.

Moving forward, it is essential to develop standardized measures of parental involvement to better understand its impact across different contexts. Additionally, tailored strategies are

needed to enhance parental engagement in communities where educational disparities persist, ensuring that all students have the opportunity to succeed academically.



RESEARCH METHODOLOGY

The population and Sample Group

The Population: The study's population consisted of 150 parents of students in grades 1-4 at Qujing No. 1 High School, Yunnan Province. These parents were connected to students enrolled in a math course.

Sample: The research sample included 108 parents from the same population (grades 1-4 at Qujing No. 1 High School, Yunnan Province) who were involved as participants in the study.

Research Instruments

For this research, the primary data collection tool was a questionnaire based on a Likert scale developed by Likert (1932), which employs a 5-level rating scale: highest, high, moderate, low, and very low. The questionnaire aimed to measure the various dimensions of parental involvement in students' academic achievement and was divided into two main parts:

Part 1: Status of Respondents

This section consisted of multiple-choice questions designed to gather demographic and background information about the respondents. These questions focused on factors such as:

Parental age

Education level

Occupation

Socioeconomic status

This part helps establish the background characteristics of the respondents, which is essential in understanding the broader context of the parental involvement in the study.

Part 2: Parental Involvement Measurement

Parental involvement was assessed using a validated scale adapted from the Home-Based Involvement Questionnaire initially developed by Fantuzzo et al. (2000). This instrument was further validated by scholars such as Tarraga Garcia et al. (2018), ensuring its reliability and relevance to the current study.

This section of the questionnaire focused on cognitive learning and parental involvement factors. It used a 5-level estimation scale to ask respondents about the extent of their engagement in their child's education. The factors measured included:

Assisting with homework

Engaging in reading activities with the child

Communication with teachers

Participation in school-related activities

Home-based cognitive learning activities

The responses helped quantify the level of parental involvement and its perceived impact on the child’s cognitive development and academic success.

Validation and Reliability

The questionnaire was developed based on established instruments, ensuring that the questions were valid and reliable for measuring parental involvement. Previous studies have tested these questionnaires across various settings, confirming their ability to accurately assess parental engagement in education. The results from this study are expected to be similarly valid and reliable due to the careful adaptation of these tools.

This approach ensures that the study captures comprehensive data on the nature and extent of parental involvement in students' academic development, making it possible to analyze its effects on academic performance.

Data Collection

The first data collection step involved obtaining approval for conducting this type of research from the Institutional Review Board (IRB). Once IRB approval was granted, the researcher proceeded to request site administrators to grant access to and data collection rights from the pre-identified school. The request was delivered through formal writing to the school's principal.

Data on students' academic performance though was provided by the parents, it was also collected from the institution's records to ensure accuracy. Notably, the latest academic performance scores in subject math were collected for each student included in the study.

All the data was merged into a spreadsheet of eight columns. The first column was the participant ID. The second and third columns contained data on academic performance scores in math. The fourth column contained data on the average academic performance of students across the two subjects. Data in this column was obtained by averaging math scores. The fifth column contained data on parental involvement. The sixth column contained data on the grade level of students. This is a categorical variable with five levels representing grade levels one through five. Lastly, the seventh column contained data on the gender of students, while the eighth column contained data on the gender of the responding parent.

Data Analysis

1) Frequency distribution
2) Percentage Value
3) Average
4) Standard Deviation (S.D)
5) Multiple Regression

RESEARCH RESULTS

The data consisted of students' academic performance in two principal subjects, math and language arts, students' grade level (1-5), students' gender (male or female), and level of parental involvement. Parental involvement was measured using the home-based involvement scale utilizing 13 items rated on a four-point Likert scale such that a score of 1 represents the lowest degree of home-based parent involvement. In contrast, 4 represents the highest degree of home-based parent involvement. The average responses to the 13 items were calculated and served as an overall measure of parental involvement. There were n = 108 participants in this study, including 48 (44.4%) females and 60 (55.6%) males. There were approximately equal students at each of the five grade levels. This information is provided in Tables 1, 2 and 3.

Table 1 Descriptive Statistics: Gender (n =108)

Gender	**Frequency**	**Percent**
Female	48	44.4
Male	60	55.6
Total	**108**	**100.0**

Table 2 Descriptive Statistics: Grade Level (n = 108)

Grade Level	Frequency	Percent
1.00	22	20.4
2.00	22	20.4
3.00	22	20.4
4.00	22	20.4
5.00	20	18.5
Total	**108**	**100.0**

Table 3 Descriptive Statistics: Math Scores by Grade (n = 108)

	Min.	Max.	*M*	*SD*	Skewness	Kurtosis
Math	46.00	100.0	86.27	10.88	-1.251	1.851
Parental Involvement	2.00	3.80	2.89	.47	-.817	.228

Part 2: Assumptions Testing

Multiple regression requires eight assumptions—two methodologically determined and six statistically assessed. The first two methodological assumptions were met in the present study by having one criterion variable measured at the continuous level and two or more predictor variables measured at the dichotomous or continuous level (Barthlow et al., n.d.; Lewis-Beck, 1980; Warner, 2013). The other six assumptions are analyzed below by research question.

A multiple regression analysis was conducted to assess if a relationship existed between students' academic performance—measured with Math course averages—and a linear combination of parental involvement, grade level, and student gender. For the first research question and hypothesis, the predictor variables were parental involvement, grade level, and student gender.

The criterion variable was math numerical course averages. The researcher rejected the null hypothesis at the 95% confidence level where $F (6, 107) = 7.224$, $p < .001$. There was a significant relationship between the predictor variables (parental involvement, grade level, and student gender) and the criterion variable (Math numerical course averages). Table 4.4 provides the regression model results.

Table 4 Regression Coefficients (RQ2)

Model		*SS*	*df*	*MS*	*F*	*Sig.*
1	Regression	1328.553	6	221.426	3.003	.010b
	Residual	7446.447	101	73.727		
	Total	8775.000	107			

a. Dependent Variable: Math

b. Predictors: (Constant), Gender, Grade3, Parental Involvement, Grade1, Grade2, Grade4

Table 5 Regression Coefficients (RQ2)

	Unstandardized Coefficients		**Standardized Coefficients**	***t***	***Sig.***
	B	***SE***	***B***		
(Constant)	81.306	6.298		12.910	.000
Parental Involvement	1.163	1.975	.060	.589	.557
Grade1	-1.701	2.703	-.076	-.629	.531
Grade2	7.812	2.716	.349	2.876	.005
Grade3	4.762	2.694	.213	1.768	.080
Grade4	1.966	2.911	.088	.675	.501
Gender	-.260	1.729	-.014	-.151	.881

a. Dependent Variable: Math

DISCUSSION & CONCLUSION

The results of this study provide valuable insights into the relationship between parental involvement, grade level, gender, and students' math performance. A significant finding in this study is that parental involvement, while positively associated with academic achievement, did not display a strong or statistically significant impact on students' math scores, as indicated by the regression analysis.

Parental Involvement and Academic Performance, Despite the theoretical expectation that parental involvement would positively influence academic outcomes, the findings suggest a weak direct relationship between parental involvement and math performance in this particular sample. The standardized coefficient ($\beta = .060$) and the non-significant p-value (.557) imply that parental involvement, although beneficial, may not be the most critical factor affecting students' performance in mathematics in this study. This could suggest that other factors—such as the quality of parental engagement or the specific type of involvement—may have a more profound effect on academic outcomes. For instance, some forms of involvement, such as helping with homework or engaging in reading activities, may be more influential than general support.

This finding is somewhat inconsistent with previous research that highlighted the positive impact of parental involvement on student outcomes across various subjects. Studies by Fantuzzo et al. (2000) and Boonk et al. (2018) emphasize the role of parental involvement, particularly in early education, in fostering student engagement and academic success. However, the present study suggests that other factors, such as the student's motivation, teaching quality, or classroom environment, may play a more critical role in determining academic outcomes in specific subjects like mathematics.

Grade Level and Academic Performance, One of the more significant findings from the regression analysis was the impact of grade level on students' math performance. Specifically, students in Grade 2 performed significantly better than their peers in other grade levels, as indicated by the positive regression coefficient ($B = 7.812$, $p = .005$). This suggests that students in Grade 2 may be experiencing a unique combination of factors that enhance their performance, such as developmental readiness, curriculum alignment, or teaching strategies tailored to their age group.

The improvement in performance among Grade 2 students could also be attributed to the possibility that the foundational math concepts taught in that grade are better understood or more easily mastered by students at that developmental stage. In contrast, the lower coefficients for other grades, such as Grade 1 ($B = -1.701$) and Grade 3 ($B = 4.762$), indicate less pronounced gains, highlighting that the relationship between grade level and performance is not linear and may be influenced by the specific content or teaching methods employed at each grade level.

Gender and Academic Performance, Interestingly, gender was not found to be a significant predictor of math performance in this study, as evidenced by the non-significant t-value (-.151) and p-value (.881). This finding is consistent with previous research suggesting that gender differences in math performance have narrowed over time, particularly in more equitable educational environments. Research by Hyde et al. (2008) has also noted that gender gaps in mathematics tend to be minimal when access to education and resources is equal.

The lack of significant gender differences in this study may reflect broader trends in educational equality, where both boys and girls are provided with similar opportunities and support for learning mathematics. This aligns with the general consensus in contemporary research, which indicates that gender-based disparities in subjects like mathematics are largely cultural rather than innate.

Implications for Educational Practice, The findings of this study hold several implications for educational practice. First, while parental involvement is generally seen as beneficial, the results suggest that it may not always have a direct and significant impact on academic outcomes, particularly in subjects like math. Therefore, schools and educators might benefit from focusing on specific types of parental involvement that have a proven impact, such as targeted academic support or active participation in school-based learning activities.

Additionally, the findings regarding grade level suggest that more attention should be paid to tailoring instruction to the developmental needs of students at each grade. Educators might consider adapting their teaching strategies to better support students in grades where performance tends to dip, such as Grade 1 and Grade 3 in this study.

Finally, the lack of gender differences in math performance underscores the importance of continuing efforts to promote gender equality in education. The findings support the idea that when educational opportunities are equal, gender does not significantly influence performance, at least in subjects like mathematics.

In conclusion, this study found that parental involvement had a relatively weak relationship with students' math performance, while grade level was a more significant predictor of academic success. The lack of significant gender differences suggests that gender equality in education is improving, particularly in subjects like mathematics.

These findings suggest that educational interventions should focus not only on promoting parental involvement but also on enhancing classroom practices and curriculum design to better support students at various grade levels. Future research could explore the qualitative aspects of parental involvement—such as the nature and quality of engagement—to better understand its impact on academic performance across different subjects. Additionally, further investigation into the developmental factors contributing to the higher erformance of Grade 2 students could provide valuable insights for improving educational outcomes.

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Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Conflicts of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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