

 Research Article

## Does Parental Academic Support Consistently Predict Pupils' Academic Achievement? Unbundling the Impacts of the Dimensions of Parental Academic Support

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### Abstract

The significance of parental academic support has been noted in educational research, highlighting its impact on several aspects of learning outcomes. Most researchers conceptualized parental academic support as multidimensional, given that it encompasses various strategies and activities parents adopt to support the learning of their children. Yet, few studies have unbundled the impacts of these dimensions on pupils' academic achievement. We designed this study by employing a predictive correlational research design to determine how parental academic support predicts pupils' academic achievement by unbundling how the various dimensions of this support impact their achievement using hierarchical multiple regression analysis. A simple random sampling method was employed to select 261 students (54% male and 46% female; mean age = 10.51  $\pm$  1.41 years) from six intact classes across two primary schools affiliated with and administered by two tertiary institutions in Anambra State, Nigeria. We adopted the Perceived Parental Academic Support Scale developed by Chen (2005) to obtain pupils' views regarding the academic support they receive from their parents. The scale was divided into five dimensions (interpersonal, cognitive, emotional, behavioural, and instrumental) and rated on a 4-point rating continuum from 'strongly agree' to 'strongly disagree'. The average scores of the pupils for the 2023/2024 academic session were used to represent their academic achievement. Major findings indicated that pupils' age and gender predicted their academic achievement. Also, the findings show that the cognitive dimension of parental academic support predicted the pupils' academic achievement. We concluded from the findings of the study that pupils' age, gender, and the cognitive dimension of parental academic support are critical to pupils' academic achievement.

**Keywords:** Academic Achievement, Age, Gender, Parental Academic Support, Pupils

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**Received**

April 2, 2025

**Accepted**

July 17, 2025

**Published**

February 4, 2026

**Citation:** Nwune, E. C., Anidi, C. A., Oguezue, N. K., & Nwosu, K. C. (2026). Does parental academic support consistently predict pupils' academic achievement?

Unbundling the impacts of the dimensions of parental academic support. *Journal of Research in Education and Pedagogy*, 3(1), 14–23.

DOI: [10.70232/jrep.v3i1.102](https://doi.org/10.70232/jrep.v3i1.102)

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## 1. INTRODUCTION

Many education stakeholders, such as policymakers, school administrators, and teachers, have emphasized the importance of parental collaboration with schools to enhance their children's learning. This call is based on the rapid increase in academic competition caused by the increasingly challenging school curriculum. Besides, public primary schools in Nigeria have been found to operate below a 20% efficiency level (Oluwatayo et al., 2024), and Nigeria has one of the highest rates of learning poverty globally, with 92% average learning deprivation (Akinola et al., 2023). This warrants that a comprehensive support system is provided to Nigerian pupils. This could go beyond what is obtainable in the classroom to support that comes from family members. Parents are expected to assist their children in successfully navigating the curriculum and achieving desired learning objectives (Hasan, 2016; Ugwuanyi et al., 2020). Without parental

support, achieving learning objectives, such as pupils reaching their highest academic achievement, may remain unattainable.

Academic achievement significantly influences the educational process by determining individuals' educational and professional advancement in educational institutions and the job market. Given this, stakeholders, including students, are constantly under pressure for high achievement scores. Hasan (2016) argued that students frequently experience stress while trying to manage these pressures and fulfil academic expectations from their parents and society. Therefore, to mitigate the impact of these pressures, students need to get all the requisite support available to aid their advancement. One form of this support is from the parents, which is termed parental support.

Parental support is crucial in fostering the growth of children. It is deemed significant due to the pivotal function parents fulfil in their children's lives as the primary catalysts for their growth and development (Enemuo & Onyenwe, 2020). At first, parental support was described as the emotional support given by parents to their children to promote harmonious coexistence within the family (Barber et al., 2005). However, studies (Choe, 2020; Hasan, 2016) have contended that the conceptualization should encompass academic assistance, considering the support children receive from their parents in relation to their educational pursuits. Though studies in Nigeria have examined how parental support could impact students' learning outcomes (Angwaomaodoko, 2023), there is a dearth of studies that have examined the impacts of the dimensions of parental support on pupils' academic achievement. The present study examines parental support and how these supports could be associated with pupils' academic achievement, taking into consideration the contributions of the individual dimensions. Importantly, we also intend to explore whether the gender and age of pupils are significant factors in the association between parental academic support and the academic achievement of pupils in Anambra State.

## 1.1. Literature Review

Parental academic support (PAS) encompasses the support given by parents to enhance their children's academic achievement and overall academic experience. Cheung and Pomerantz (2015) described PAS as a type of social support that improves students' academic performance. PAS can take the form of material and non-material resource provisions such as time, motivation, finances, care, and guidance, which can translate to improved students' academic achievement (Barr, 2015; Hasan, 2016). Pishghadam and Zabihi (2011) argued that students with more extensive access to these resources exhibit superior academic achievement in comparison to their peers who may have restricted access to them. This suggests that when students have an ample supply of these resources from their parents, it often leads to the development of their self-motivation, regulation, and efficacy, which in turn can result in greater academic achievement (Gershay et al., 2023). Similarly, Hill and Tyson (2009) argue that parental academic support improves students' acquisition of essential academic abilities necessary for success in the academic world and general life.

Parents are required to support their children at every stage of their schooling. Nevertheless, it is imperative to offer this support specifically to pupils in primary school. This is essential because the primary level of education is regarded as the crucial stage in the development of children's lives and academics. It is a formative stage in children's learning. Therefore, at this stage, parents are expected to offer the necessary support required for pupils to overcome the difficulties of the primary school curriculum and succeed in their academic endeavours. Research findings on the influence of PAS on academic achievement have been inconsistent. According to research conducted by Sota and Agi (2020) and Yahya et al. (2020), no significant correlation between PAS and academic achievement was found. Their finding suggests that a child's academic achievement remains unaffected regardless of whether they receive support from their parents. In contrast, research (Akomolafe & Adesua, 2016; Alimba et al., 2024; Ebele, 2024; Enemuo & Onyenwe, 2020; Ugwuanyi et al., 2020; Gershay et al., 2023; Li et al., 2023) has demonstrated that parents can enhance their children's academic achievement and overall well-being by equipping them with the necessary resources to succeed in both academics and general life.

Although research has demonstrated the effectiveness of parental academic support in improving children's academic achievement, not many studies have unbundled the impacts of the dimensions of parental academic support on pupils' academic achievement. Thus, the present study explored the several

dimensions of parental academic support, including cognitive, emotional, instrumental, interpersonal, and behavioural, and how they influence pupils' academic achievement. This approach is consistent with the multidimensional conceptualization of the concept by Chen (2005). Chen noted that cognitive support represents parents' communication of the values of educational success to their children to help them appreciate education and put in more effort to succeed in their educational pursuits. Emotional support entails parents providing care, encouragement, active listening, and empathy to their children to help them deal with the academic challenges they may face in their educational pursuits. Instrumental support includes parents' tangible support of their children's educational pursuits via the supply of educational resources and assistance with students' homework. Interpersonal support refers to the relational guidance parents provide for their children to aid their academic success via developing social skills, emotional intelligence, and healthy relationships. Finally, behavioural support represents the actions and strategies used by parents to promote their children's behavioural development. These strategies include positive reinforcement, discipline, modelling, active monitoring, and open communication. These dimensions represent how parents can provide their children with the necessary support to attain optimum academic achievement.

A number of studies have explored the influence of different dimensions of parental academic support on children's outcomes. For instance, Hong et al. (2020) examined the associations between multiple forms of parental support and children's physical activity in China. Their results indicated that parental encouragement, active involvement, financial assistance, and role modelling were positively related to physical activity levels among boys, girls, and adolescents.

The impact of learners' socio-demographic variables, such as gender and age, on the educational success of pupils has been controversial in educational research, with several contradicting research findings advanced by researchers. For example, Kristjánsson and Sigfúsdóttir (2009) demonstrated that the association between parental academic support and students' achievement is similar for male and female children. However, the researchers posited that the boy-child is less monitored by their parents compared to the girl-child. Regarding children's age, Morrison, Rimm-Kauffman, and Pianta (2003) posited that parents provide support for their children's academic achievement even up to adolescence. The researchers posited that this support is necessary until the children transition from childhood to adolescence. Similarly, Choe (2020) recently corroborated this assertion by asserting that parental academic support varies with their children's cognitive development. This suggests that as students progress in age and cognitive development, the support they receive from their parents begins to diminish.

Research such as Gersh et al. (2023) has shown that despite the benefits of parental academic support, many parents still find it challenging to provide the necessary support that aligns with their children's learning needs. This difficulty may arise from parents' lack of awareness of their children's learning needs or their insufficient knowledge and expertise. All of these potential factors may be attributed to the parents' inadequate education or illiteracy. Gersh additionally proposed that parents' support of their children's academic pursuits is compromised due to time constraints resulting from their substantial commitments to employment and household responsibilities. Studies conducted by Rutherford et al. (2019) and Yatziv et al. (2018) have demonstrated that parents frequently experience feelings of being overwhelmed as they strive to manage their professional and household responsibilities while also giving academic support to their children. This experience could have a detrimental impact on the parents and may also affect their children's academic achievement. Thus, the current study investigated the impact of parental academic support on pupils' academic achievement in primary schools, especially those owned and managed by tertiary institutions in Anambra State. These schools are considered elite schools with children of more educated parents (Nwosu et al., 2024). These parents are expected to possess sufficient knowledge and expertise about the academic support needed for their children's optimum academic achievement. It is, therefore, the objective of this paper to examine the association between the dimensions of parental academic support and pupils' academic achievement in these elite schools in Anambra State.

### 1.1.1. Theoretical Framework

This study is based on Coleman's (1988) Social Capital Theory. Social capital encompasses every element of social organization that contributes to the generation of value and enables individuals to carry out their activities within that organization (Coleman, 1988). It symbolizes the connection between family members that facilitates the transfer of many structural resources, such as parental education, finances, and

beliefs, to support their children's education. Social capital significantly impacts individuals' formation of human capital, which is commonly assessed by their educational achievements (RogoÅ & BaranoviÅ, 2016). Social capital does this by exerting influence on students' behaviours, resulting in a decrease in dropout rates and an increase in both enrollment and graduation rates. Pishghadam and Zabihi (2011) suggested that children who have more opportunities to use the aforementioned structural resources have higher levels of academic achievement compared to those who do not have the same benefit. The variations in the availability of social capital among families and communities account for the disparities in academic achievement reported among school-aged children (Acar, 2011). The present study adopts Coleman's social capital theory as its theoretical framework, as it clearly explains the pivotal role parents play in fostering their children's social capital development. This form of social capital is widely associated with improved academic outcomes among children.

## 2. METHODS

### 2.1. Research Design

We employed a predictive correlational research design in our study to investigate primary school pupils regarding how parental academic support predicts their academic achievement (Creswell & Creswell, 2017). The independent variable in this study was the children's perceptions of the various forms of academic support provided by their parents, whereas the dependent variable was their academic achievement. Age and gender were used as moderator variables.

### 2.2. Participants

The population of our study was comprised of primary school students from Anambra State, Nigeria. The sample size consisted of 261 children, 54% of whom were male and 46% female. The mean age of the pupils was  $10.51 \pm 1.41$ . These pupils were recruited from two primary schools owned and managed by two tertiary institutions in Anambra State. The selection of this sample was conducted using a multi-stage sampling approach that incorporated purposive and convenience sampling techniques. Pupils were sampled from primary four, five, and six in these schools.

### 2.3. Research Instruments

Two research instruments were used to collect data for the study. The data for parental support were gathered through the utilization of the Perceived Parental Academic Support Scale developed by Chen (2005). The scale was divided into five dimensions (interpersonal, cognitive, emotional, behavioural, and instrumental) and was designed to assess parental academic support based on the perspectives of children/students. The scale was modified to a 4-point rating continuum that spans from 'strongly agree' to 'strongly disagree'. The average scores of the pupils for the 2023/2024 academic session were used to represent their academic achievement.

### 2.4. Procedures

The consent of the school authorities was obtained, and confidentiality was maintained by omitting any means of identification for the respondents. Subsequently, we articulated the study's purpose and engaged teachers and school authorities to build rapport with our respondents. As obtainable in Nigeria's educational system, this engagement served in the place of the consent from respondents' parents (Maduka-Okafor et al., 2022; Nwosu et al., 2023). The study employed teachers as research participants to collect data from the respondents via direct questionnaire administration. All questionnaire items were presented in English, the official language of Nigeria, and the medium of instruction in the schools. The students took approximately fifteen minutes to complete the questionnaires, which were retrieved on-site, resulting in a 100% retrieval rate.

## 2.5. Data Analysis

The collected data were processed using SPSS version 27. Pearson's product-moment correlation analysis was employed to examine the relationships among the variables of interest, while hierarchical regression analysis was conducted to assess the predictive effects of the independent variables on pupils' academic achievement. The essence of using a hierarchical regression analysis in our study is to ensure that we understand the impact of each variable on the outcome variable as they are entered in the models one at a time. First, we entered the sociodemographic variables - gender and age – in the first model, and secondly, the dimensions of the parental academic support in the second model.

## 3. RESULTS

Table 1 reveals the relationships among the variables. Pupils' gender showed a non-significant positive relationship with their academic achievement,  $r = .035, p = > 0.05$ , while pupils' age was negatively and significantly related to their achievement,  $r = -.336, p = < 0.05$ . Interrelationships also existed among the predictor variables. Parental academic support showed a non-significant positive relationship with pupils' academic achievement,  $r = .084, p = > 0.05$ . A closer look at the dimensions of parental academic support shows that only the cognitive dimension was positively related to pupils' academic achievement, although the relationship was not significant,  $r = .075, p = > 0.05$ . All other dimensions showed a non-significant negative relationship with pupils' academic achievement except for the instrumental support dimension, which was negatively significant,  $r = -.151, p = < 0.05$ .

**Table 1.** Bivariate Relationships among the Predictor Variables and the Outcome Variable

S/N	1	2	3	4	5	6	7	8	9
1 Gender	-	-.066	-.037	-.142*	-.083	.013	.001	-.077	.035
2 Age		-	.145*	.018	.037	.069	.183**	-.087	-.336**
3 Interpersonal Support			-	.358**	.280**	.160**	.249**	.176**	-.064
4 Cognitive Support				-	.406**	.421**	.090	.361**	.075
5 Emotional Support					-	.202**	.300**	.158**	-.087
6 Behavioural Support						-	.064	.215**	-.018
7 Instrumental Support							-	-.043	-.151*
8 Overall Parental Academic Support								-	.084
9 Achievement Score									-

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

**Table 2.** Multiple Regression Analysis on Factors Predicting Pupils' Academic Achievement

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.
	<i>B</i>	Std. Error	Beta		
1 (Constant) $R = .319^a$ ; $R^2 = .102$ ; $P = .000^b$	104.457	7.446		14.029	.000
	Gender	.794	.1647		
2 (Constant) $R = .357^b$ ; $R^2 = .127$ ; $P = .000$ ; <i>Change in R<sup>2</sup></i> = .025; <i>Sig. F Change</i> = .405	Age	-3.137	.637	-4.922	.000
	Interpersonal Support	-.400	.479		
	Cognitive Support	.767	.370	2.075	.039
	Emotional Support	-.217	.516		
	Behavioural Support	-.306	.444		
	Instrumental Support	-.341	.380		
	Overall Parental Support	.653	1.715		
			.028		
			.381		
			.704		

The regression analysis is presented in Table 2. In the first model, pupils' sociodemographic variables jointly predicted their academic achievement, accounting for 10.2% of the variance in the outcome variable ( $F(2,219) = 12.426, P < 0.005; R^2 = .102$ ). Using  $\beta$ , pupils' age ( $\beta = -.316, t = -4.922, p < 0.05$ ) made a significant contribution to the variance in pupils' academic achievement. Pupils' gender ( $\beta = .031, t = .482, p > 0.05$ ) did not significantly contribute to the variance. In the second model, the predictor variables jointly predicted pupils' academic achievement, accounting for 2.5% variance in the outcome variable ( $F(8,213) = 3.884, p < 0.05; R^2 = .127$ , adjusted  $R^2 = .025$ ). However, only pupils' age ( $\beta = -.287, t = -4.307, p < 0.05$ ) and the cognitive dimension of parental academic support ( $\beta = .164, t = 2.075, p < 0.05$ ) made a significant contribution to the variance in the outcome variable.

#### 4. DISCUSSION

Our study aimed to predict pupils' academic achievement using the dimensions of academic support they received from their parents. This approach is important because there is a paucity of studies that have tried to understand the mechanisms by which parental academic support enhances academic achievement. This may have led to a vague conclusion by researchers on the subject of interest. Parental academic support has been conceptualized as a multidimensional construct emphasizing the various strategies and activities adopted by parents to support their children to succeed in their academic voyage. We adopted the hierarchical regression analysis to explore the influences of each of the variables.

Our findings in the first model revealed that pupils' demographic factors (gender and age) jointly predicted their academic achievement. However, only age contributed significantly to the variance in the outcome variable. This means that pupils' age is a significant predictor of their academic achievement. Age of children has been noted to be a significant factor in their cognitive development, given that it could depict the various experiential factors that children have had (Celikkol, 2023; Johnson & Megan, 2020; Mavilidi et al., 2022). The negative association between age and pupils' academic achievement indicates that as age increases, academic achievement tends to decrease. This suggests that younger pupils performed better academically than their older counterparts. Given that our data were collected from pupils in primary four, five, and six in the selected schools, the impact of age differences between classes on pupils' academic achievement may imply that as pupils progress to higher classes, they encounter more cognitively demanding tasks, which could lead to a decline in academic performance. On the contrary, the literature has shown consistently that younger pupils in the same class achieve significantly lower than the older ones (Mavilidi et al., 2022; Urruticoechea et al., 2021). Previous studies (Nalova & Etomes, 2019) have demonstrated that pupils' age has a significant impact on their academic achievement. However, our findings contradict the findings of Abubakar (2012) and Omiebi-Davids (2022), who reported from their study on age and gender as predictors of academic achievement that gender was a better predictor of students' academic achievement. Similarly, our finding contradicts the findings of Imlach et al. (2017), who posited that students' age and gender do not impede their achievement. Studies that have examined the impact of students' age and gender on their academic achievement have remained inconclusive, and this has been a controversial issue in educational research, necessitating further investigation by researchers.

In the second model, our findings revealed that pupils' age and the cognitive dimension of parental academic support are significant predictors of pupils' academic achievement. The cognitive aspect of parental academic support was positively associated with pupils' academic achievement. This suggests that the more cognitive support parents provide, the better their children perform academically. This finding may be attributed to the fact that parents of pupils in these elite schools are generally well-educated, understand their children's learning needs, and offer personalized academic support. Additionally, the cognitive support these parents provide at home is likely aligned with their children's learning processes, which may have contributed to the pupils' academic achievement. This finding agrees with recent research findings (Akomolafe & Adesua, 2016; Alimba et al., 2024; Ebele, 2024; Enemuo & Onyenwe, 2020; Ugwuanyi et al., 2020; Gershay et al., 2023; Li et al., 2023) on the association between parental academic support and students' academic achievement, although these studies did not explore the dimensions of parental academic support. On the other hand, our findings contradict those of Hong et al. (2020), one of the few studies that explored parental academic support dimensions. According to the researchers, all the dimensions of parental academic support were positively related to academic achievement. However, our

findings observed that only the cognitive dimension was positively associated with pupils' academic achievement, while other dimensions were not significantly related to pupils' academic achievement.

Our findings have significant implications for stakeholders in education, particularly parents, teachers, and educational psychologists. First, our findings showed that the age and academic achievement of pupils were negatively associated, implying that pupils in lower classes (younger pupils) had higher academic achievement scores than those in upper classes (older students). This highlights the need for more differentiated instructional strategies across upper primary classes. More engaging strategies should be adopted for pupils in upper classes since academic tasks are usually demanding as they advance in their classes. Thus, curricular design and instructional delivery should be scaffolded to accommodate developmental variations and mitigate academic decline as students advance in classes. Second, our result that showed that only the cognitive dimension of parental academic support significantly predicted academic achievement underscores the importance of the quality of parental involvement. Cognitive support, characterized by behaviours that centred on the academic works of learners, appears to be the most potent driver of academic performance among pupils in this context. Schools should consider designing parental engagement programmes that emphasize this specific form of support. This finding also calls for the development of evidence-based parental training modules that guide families on how best to contribute to their children's academic success in targeted and cognitively enriching ways.

## 5. CONCLUSION

Our study revealed the relationship between pupils' demographic variables (gender and age), the academic support dimension they receive from their parents, and their academic achievement. Most notably, among the various dimensions of parental academic support, only cognitive support emerged as a significant positive predictor of academic achievement, signalling that cognitively engaging parental behaviours are particularly beneficial to pupil learning outcomes. Thus, parents/guardians of children should be encouraged to acquire the education that would make them understand their children's learning needs and tailor the academic support they provide for them along these learning needs. Often, it has been demonstrated that parents' level of cognitive development determines their children's cognitive development. This implies that no parent can give what they do not have. These findings advance theoretical and practical discourses on parental involvement by demonstrating that the impact of parental support could be dimension-specific.

Despite the importance of the present findings, their generalizability is constrained by several considerations. First, the model incorporates a limited set of socio-demographic variables. Additional factors, such as socioeconomic background and students' birth order or family position, could have been included to enhance the comprehensiveness of the model, and their omission represents a potential limitation of the study. Second, relying exclusively on data collected from students' perspectives may further restrict the generalizability of the results. Incorporating data from both students and their parents could produce more robust and comprehensive insights. Therefore, we suggest that future researchers collect data from pupils and parents and include other socio-demographic variables such as socioeconomic status and pupils' position in the family.

**Acknowledgment.** The authors appreciate Nnamdi Azikiwe University Primary School and Nwafor Orizu College Demonstration School, Awka, for providing the facilities and resources to conduct this research.

**Research Ethics.** All necessary consent and permission were obtained from the school authorities before the commencement of the research.

**Data Availability Statement.** All data can be obtained from the corresponding author.

**Conflicts of Interest.** The authors declare no conflict of interest.

**Funding.** The research received no external funding.

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