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PARENTAL LEVEL OF EDUCATION AS A PREDICTOR OF STUDENTS' ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS IN ANAMBRA STATE

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ABSTRACT

The study investigated parental level of education as a predictor of students' academic achievement in public secondary schools in Anambra State. The study was guided by one research question and one null hypothesis. The sample was made up of 400 respondents drawn from the entire population of 20,922 senior secondary school two students using Taro Yamen formula. Data obtained from the demographics of the respondents' parental level of education were analysed with simple percentage and represented with a bar chart. Simple linear regression was used to answer research question and test hypothesis at 0.5 level of significance. The findings indicate that there is a significant high positive predictive value of parental level of education on the academic achievement of secondary schools two students in English language and Mathematics in Anambra State. It was recommended among others that government should organize workshops and seminars for illiterate parents, those with low and average educational levels and sensitize them on the need to be highly educated and its impact on the academic success of their children.

Keywords: Parental Level of Education and Academic Achievement

Introduction

Academic achievement is vast which covers a wide variety of educational output. Academic achievement plays a significant role in every person's life and defines whether a person can partake in higher education or not, and given the educational degrees one attains, influences the vocational career after education (Naila et al, 2017). As noted by Madigan and Currn (2021), academic achievement is the manifestation of competencies, which includes analytical problem-solving skills and values and it is believed to be equal to academic performance. Zheng and Mustapha (2022) referred to academic achievement as a direct manifestation of learning effectiveness and a valid indicator to assess the effectiveness of teaching and learning including the overall development of students. Tus (2020) defined academic achievement as a reflection of the learning outcomes accomplished during the school session, a goal to be accomplished by the student in learning and which enables teachers to identify their own flaws in the teaching/learning process in order to improve the quality of their teaching and teaching methods. Academic achievement in the context of the present study is referred to

as the ability of a student to study and remember facts and being able to communicate his knowledge orally or in written form in an examination condition with successful outcome.

Academic achievement is measured by GPA (Grade Point Average) or by standardized assessments which aims at selection purpose such as the SAT (Scholastic Assessment Test) which determines whether a student will have the opportunity to go to higher institution of learning. As a matter of fact, there is an understanding of the setbacks of the standard of education in Nigeria as borne out by the latest flop in the West African Examination Council-organised examinations for O'Level graduates. At the heart of this problem is the persistent decline of students' success particularly in the West African Senior Secondary School Examinations (WASSCE) and the National Examinations Council (NECO) Examinations. The flop in the academic achievement of students within the last decade is quite alarming. Ozean, (2021) underscores that the situation calls for a grave concern and attributed the development to the problem from poor quality education received at the primary school level.

Academic achievement measures the specific results of teachers' teaching and the learning outcome of students. Consequently, such disciplines as psychology, education and society, the study of academic achievement and the factors that influence and predict it has always been a significant proposition in their research (Madigan and Currn, 2021). In view of research content, there are numerous studies on the factors that predict and influence academic achievement which are classified into individual and social factors. Individual factors consist of cognitive and non-cognitive factors. Cognitive factors include accumulation of knowledge and individual intelligence; use of learning strategies and methods while non-cognitive factors include locus of control, motivation, self-concept and personality traits. On the other hand, Social factors constitute family factors, school factors and regional factors. Family factors include parental literacy and educational level, parental involvement, SES and family structure. School factors include classroom climate, teaching style, peer-relationships and teacher expectations. Finally, regional factors include ethnicity, community resources and religious beliefs. Recent scholars posit that the educational attainment of parents is another determinant of students' success or failure (Tang et al, 2020). Parents' levels of education have been identified by recent scholars as a predictor of students' academic achievements (Rana et al, 2015).

Education of a child requires multidimensional efforts. Parents, teachers, and institutes all have relevance in the process of students' learning. The family has a lot of influence on students' activities and participation at school as well their success. The family assists students with scholarly and other curriculum-related activities, planning and decisions. More importantly, educational level of the parents is such a motivating force for students which paves way for their future and success. Uche (1980) defined parental level of education as the foundation of all children's learning. This is owing to the fact that children are

guided by their parents' aspirations, which bring their desired goals or standard. To this extent, one could deduce that the teacher does his or her teaching but low or high academic achievement actually depend on the parent's socioeconomic background to their child. More so, Cascella (2020) believes that parental level of education is a strong predictor of intellectual success of students. Consequently, it will not be out of context to assert that, students' socio-economic situation, including other characteristics linked to their home environment, such as parental educational backgrounds, parental employment and family size, may have an impact on their academic achievement.

The level of education of parents is an aspect of a larger constellation of sociological and psychological variables that determines students' learning outcome. It has been pointed out in a recent research that parents' higher education is reflected in students' performance in reading and arithmetic due to their increased hopes from their children (Boi., 2020). It has been established that generally, the educational level of parents is greatly connected to the educational attainment of their children. Children whose parents are highly educated do well in their academics than those with less educated parents. Parental level of education is identified by recent scholars as a predictor of students' academic achievement (Hascoet et al. 2021). Onyedikachim and Ezekiel-Hart (2021) defined parental educational level as the educational attainment of the parents which may range from the high school to professional. Educational level influences parents' values, goals, beliefs and knowledge regarding childrearing such that a variety of parental behaviours are indirectly related to students' academic achievement. Students whose parents obtain higher educational levels may have more positive ability beliefs, more effective learning strategies, an enhanced regard for learning and a stronger work orientation than children whose parents have lower educational levels. The concept of parental educational level refers to the education level achieved by a person's parents or primary caregivers, which has a significant impact on a child's educational achievements and overall development (Ozean, 2021). Parental educational level is usually determined by the highest level of education completed by either parent and is divided into categories such as high school diploma, some college or associate's degree, bachelor's degree, master's degree, doctorate degree or post-doctorate degree.

Parental educational level is an important indicator of socioeconomic status and can greatly influence a child's educational outcomes. When parents have higher levels of education, it is often associated with greater access to resources, a wider knowledge base, and increased involvement in a child's education (Boi, 2020). On the other hand, lower parental educational levels can pose challenges for children, as they may face limited access to educational resources, less exposure to intellectual stimulation, and potentially reduced parental involvement in educational matters. Waters et al. (2021) are of the view that lower parental educational level can lead to lower academic achievement, fewer opportunities, and a higher likelihood of

perpetuating a cycle of lower educational attainment across generations.

Fakhrunnisak (2022) referred parental educational level to as the highest level of formal education attended by the father and mother. It may range from the high school to professional. Educational level of parents influences the expectations of parents towards their children. When asked about the desire of their offspring and personal qualities, parents with lower educational level tend to emphasise on external characteristics such as obedience, hygiene and politeness. In contrast, parents with higher educational level focus on psychological traits, such as cognitive, social maturity, curiosity, self-direction and happiness (Terfasa, 2018). Parental level of education contributes to the social development of students' and parents' interest in providing verbal simulation and nurturing inner traits which are supported by years of schooling, during which they learn to think about abstract subjective ideas. The children from instructed homes of highly educated parents will have higher yearnings and instructive plans than their partners from low educated parents. Students from parents with higher educational level tend to do better than students from less advantaged group. Students in turn are then disadvantaged when their parents have a lower educational level (Rana et al, 2015). It is purported that parents' level of education affects parental attitude which in turn, affects students' academic success (Jaiswal and Choudhuri, 2017).

Assari (2018) revealed that parent's educational attainment shows a strong predictive effect on adolescents' academic progress. Fathers and mothers who have a predisposition to information about schools are more likely to discuss their child's performance than less educated parents. Well educated parents' expectations levels are higher and they have more demands of academic achievement for their children/wards. Parents who have higher degrees like professors and doctors tend to have higher income which offers their children the privilege to attend good and selected schools more than their peers whose parents are not well-educated. Highly educated parents are more likely to adopt parental investment strategies which aim at maximizing the life chances of the students such as their probability of survival, health and academic success. They are also concerned and knowledgeable about obtaining educational credentials for their children by supervising their school attendance, changing them to better schools if the former is not satisfactory. Such parents also provide lesson teachers when necessary. Juma (2016) observed that children of highly educated parents are more resourceful, experienced and confident than children of low or average educated parents.

Well-educated parents provide their children with more useful forms of instruction, exposure, interaction, self-perception, encouragement and better learning environment thus transmit skills and shape the child's cognitive development in distinctive ways. Abeya (2018) established that the children of highly-educated parents are being supportive by their parents in their academics while children whose parents have low educational levels and uneducated tend not to do well in academics. In the context of this study, parental level of education is referred to as

the intellectual standard acquired by parents, guardians or care-givers. Highly educated/well-instructed parents/guardians assist their children in school-work exercises. Hascoet et al. (2021) revealed that, high achievers belong to homes with parents of higher instructive levels, whereas the failed students belong to homes with parents of lower educational levels. In the light of the above, the current study sought to investigate parental level of education as a predictor of students' academic achievement in public secondary schools in Anambra State.

Categories of Parental Level of Education

The common categories used to describe parental level of education consists of no Formal Education, Primary Education, Secondary Education, Vocational/Technical Education, Associate's Degree, Bachelor's Degree, Master's Degree, Doctoral Degree.

No Formal Education: This category denotes parents or guardians who have not received any formal schooling or have not completed any level of education.

Primary Education: Parents with primary education have finished the initial years of formal schooling, typically ranging from basic 1 to 6, contingent on the educational system of a particular country.

Secondary Education: Parents with secondary education have attained a higher level of formal schooling, usually encompassing JSS1 to SS3 or an equivalent. This encompasses the completion of high school or its corresponding certifications, such as the West African Senior School Certificate Examinations (WASSCE), General Certificate of Education (GCE), National Examinations Council (NECO), National Business and Technical Examinations Board (NABTEB) or a high school diploma.

Vocational/Technical Education: This category includes parents who have acquired specialized training or education in a particular vocational or technical field, such as automotive mechanics, plumbing, computer programming, or culinary arts. Such education can be obtained from vocational schools, community colleges, or specialized training programs.

Associate's Degree: Parents with an associate's degree have fulfilled a two-year post-secondary program generally provided by community colleges or technical institutes such as OND and NCE. These degrees often concentrate on specific career fields and provide foundational knowledge and skills.

Bachelor's Degree: Parents with a bachelor's degree have accomplished a four-year undergraduate program at a college or university which includes B.SC, B.ED. This level of education typically signifies the completion of a wide array of general education requirements and a major field of study.

Master's Degree: Parents with a master's degree have concluded a graduate-level program typically following the attainment of a bachelor's degree. This level of education involves more specialized and advanced coursework and frequently incorporates a dissertation or research component. Master's degree includes M.Sc., M.Ed.

Doctoral Degree: Parents with a doctoral degree have achieved the highest level of academic accomplishment. This level of education entails several years of advanced

study, original research, and the completion of a doctoral thesis. It encompasses degrees such as Doctor of Philosophy (Ph.D.), Doctor of Medicine (M.D.), Doctor of Education (Ed.D.), and so on.

Statement of the Problem

The consistent decline in students' academic success in subjects like English language and Mathematics across the nation has been evidenced and it can destabilize the individual students' life course, affect the economic status of the state and nation at large, poses social problems and, as such merits further attention. As a matter of fact, the situation has raised doubt in the education system and stakeholders are expressing increasing dissatisfaction when the results of the West African Senior School Certificate Examination are released annually as the outcomes achieved by students do not align with the level of investment made by the government, parents and teachers. A lot of variables have been adduced to be responsible for the flop in students' academic achievement in external examinations across the nation and the intricacies surrounding it, hence the need for the study. It could be individual factors or family factors such as parental level of education. The problem of this study is therefore put in question thus: what is the predictive value of parental level of education on academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State?

Purpose of the Study

The main purpose of the study was to investigate parental level of education as a predictor of academic achievement of secondary school students in Anambra State. Specifically, the study sought to ascertain:

- The predictive value of parental level of education on academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State.

Research Question

The research question stated below guided this study:

- What is the predictive value of parental level of education on academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State?

Hypothesis

- Parental level of education will not significantly predict academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State.

Research Method

The study was conducted using a correlational research design. Bhandari (2021) views correlational design as a study of the relatedness of two variables. Bhandari maintained that correlational research design is a useful device for predictions and providing insights into complex real-world relationships hence, scientists and researchers can use the survey to make decisions. The design was suitable for the present study because the researcher was concerned about the predictive value of

parental educational level on students' academic achievement. The population of the study consisted of 20,922 students in senior secondary two (SS2) 2021/2022 session of public secondary schools in Anambra state. A sample of 400 respondents was drawn from the population using Taro Yamen Formula. Data obtained from the demographics of the respondents' parental level of education were analysed with simple percentage and represented with a bar chart.

Results

Demographic Data of the Respondents on Parental Level of Education

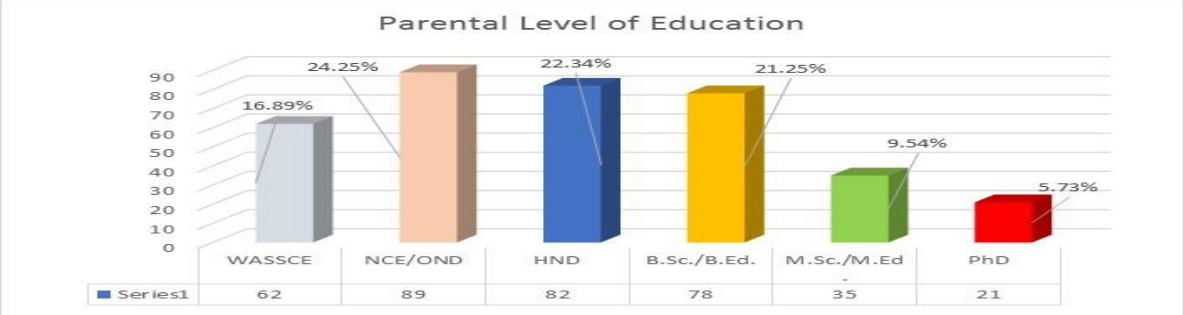


Figure 1: Parental Level of Education

Figure 1 showed the parental level of education of the respondents. The results revealed that 21(5.73%) of the parents of the students are PhD holders; 35(9.54%) have obtained M.Sc./M.Ed. degrees; 78(21.25%) of the students' parents have obtained B.Sc./B.Ed. certificate; 82(22.34%) have obtained HND certificate while 89(24.25%) of the parents are with NCE/OND certificate and 62(16.89%) parents have only WASSCE. This implies that majority of the parents of the students are NCE/OND holders.

Analysis of Research Question:

Research Question: What is the predictive value of parental level of education on academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State?

Table 1: Summary of the simple linear regression on the predictive value of parental level of education on academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State

Model Summary of the Predictive Value of Parental Level of Education on Students' Academic Achievement in English Language and Mathematics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
English Language	0.809[a]	0.655	0.654	15.36771
Mathematics	0.783[a]	0.613	0.612	15.74158

a. Predictor: (Constant), Parental Level of Education

Table 1 showed the summary of the simple linear regression on the predictive value of parental level of education on academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State. The results revealed that the R-values for English Language and Mathematics were 0.809 and 0.783 and the R Square values were 0.655 and 0.613. The R-value of English Language revealed a very strong positive prediction of parental level of education on the students' academic achievement in English Language. This is because parental level of education has a very high predictive strength of 65.5% on academic achievement of students in English Language. Similarly, the R value for Mathematics was 0.783 indicating a high positive predictive outcome of parental level of education and academic achievement in Mathematics. The R Square value of 61.3% affirmed the high predictive value of parental level of education on academic achievement of students in Mathematics.

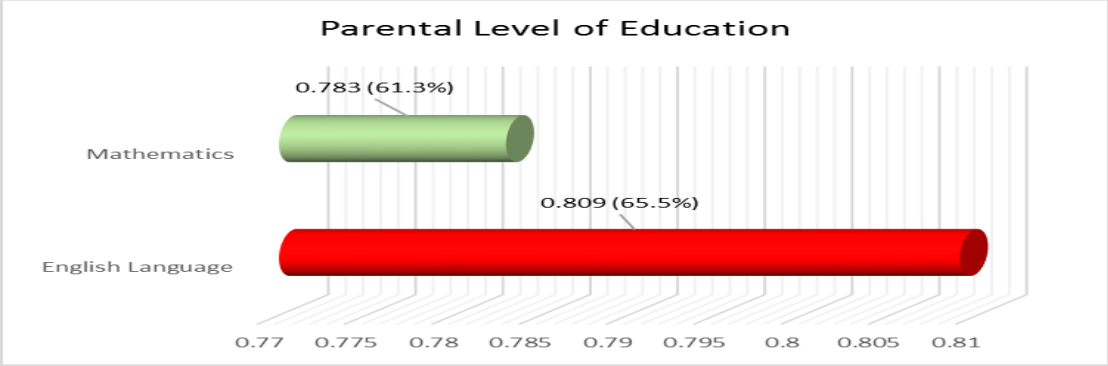


Figure 2: Summary of the Predictive Value of Parental Level of Education on the Academic Achievement on English Language and Mathematics.

The results in figure 2 revealed the predictive value of parental level of education on the academic achievement in English Language and Mathematics. The results showed that the predictive value of parental level of education on English Language achievement is 0.809(65.5%) and Mathematics is 0.783(61.3%).

Null Hypothesis Testing

Hypothesis: Parental level of education will not significantly predict academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State.

Table 2: Model summary of Parental level of education will not significantly predict academic achievement in English Language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
English Language	0.809[a]	0.655	0.654	15.36771	693.629	.000[b]
Mathematics	0.783[a]	0.613	0.612	15.74158	579.146	.000[b]

The results of the test of hypothesis showed that the predictive values for English Language were f-value (9.105) and the p-value (.073) and for Mathematics were f-value (10.315) and the p-value (.091). The p-values of both English Language and Mathematics indicated that the null hypothesis was rejected while the alternative hypothesis was retained. Thus, parental level of education significantly predicts academic achievement in English language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State.

Discussions

The study found that parental level of education has a very high and positive predictive value of 66.5% on academic achievement in English Language and 61.3% on academic achievement in Mathematics. Hypothesis affirmed that parental level of education significantly predicts academic achievement in English language and Mathematics of senior secondary two (SS2) students in public secondary schools in Anambra State. This finding is consistent with the result of Onyedikachim and Ezekiel-Hart (2021), which revealed that high parental educational level has positive predictive value on the academic achievement of students. This finding is in consonance with Iwaniec (2020), who showed that educational level of parents and students' achievement in mathematics are substantially correlated. The finding is in line with Cascella (2020), who reported that parents educational background is consistently linked with students' achievement in mathematics. Tan et. al., (2020) in their study observed that parents with highly educational background tend to be actively involved in their children's studies, teach them the intricacies of arithmetic and in turn, positively affects their learning outcome in mathematics. The consistency of the finding is further in line with the result of Ekpo and Ojating (2023), who concluded that the educational level of parents significantly influences academic achievement of students in English language and Mathematics. This finding is also in concord with the works of Idris et al. (2020), who noted that high educational level of parents significantly predicts students' academic achievement.

Highly educated parents of today by their ability to understand and their wealth ensure that their children receive quality education and make the best result so that they will become part of the elite society of their own generation. Iwanlec (2020) found students whose parents have a lower level of education tend to be less motivated in academic learning. Stanislaus (2016) held that children of highly educated parents

stand a better chance to be motivated by their parents which advances their academic achievement. Well educated parents are those in the best jobs and some with the resources that provide quality education of their children. This makes it possible for such parents to employ household labourers for domestic chores and relieve their children of such burdens. With such enabling atmosphere, the children will devote substantial time at home to study, do homework/assignment which enhance their academic achievement.

Conclusion

Based on the findings of the study, it was concluded that there is a significant high positive predictive value of parental level of education on the academic achievement of secondary schools two students in English language and Mathematics in Anambra State. This study therefore established that parental level of education is a variable that predicts students' academic achievement.

Recommendations

Based on the findings, the following recommendations were made:

- Teachers should give more attention to students from parents with low level of education though without undermining the confidence of students from parents of high educational levels. Every student irrespective of the educational level of the parents should be carried along and assisted to attain success.
- Government should organize workshops and seminars for illiterate parents, those with low and average educational levels and sensitize them on the need to be highly educated in order to enhance the scholastic outcome of their children. The government should as well make adult education available, accessible and affordable so that low and average educated parents would benefit, hence positively influence the academic achievement of their children. Social media could be used to create awareness or training of agents to enter remote places or even market squares for sensitization on parental educational attainment.
- Parents with high educational levels should use their academic status to actively assist their children's school activities both at home and in school environment.

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