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INFLUENCE OF FAMILY BACKGROUND ON STUDENTS' ACADEMIC PERFORMANCE IN MATHEMATICS IN JUNIOR SECONDARY SCHOOLS IN ONITSHA EDUCATION ZONE OF ANAMBRA STATE

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ABSTRACT

Research has shown that students' home background is a major factor to consider when assessing students' learning outcome in science subjects among high school students. This paper therefore investigates how family background determines students' academic achievement in science among high school students in southeast Nigeria. Among the three research questions raised by the study, the main one is-how does family background influence students' academic achievement in science subjects among high school students in Southeast Nigeria? A total N=220 randomly selected from a population of science students in senior secondary schools in southeast Nigeria formed the sample size. Student's survey questionnaire (SSQ) on a 5-point Likert scale was used as an instrument for data collection. A quantitative research design was adopted while the collected data was descriptively measured to establish the association between the two variables. The result shows that students whose parents acquired better education and higher income levels would positively support their children's education in science subjects compared to those with lower education and income. The study concludes that the learning outcome of students in science subjects are predetermined by the kind of family background they have, this indicates that the socioeconomic status (SES) of parents is a key determinant of students' academic achievement in science subjects in Southeast Nigeria.

Keywords: Impact; Family Background; Students' Academic Performance; Mathematics; Junior Secondary School.

Introduction

There is evidence suggesting that mathematics has fundamental ties to human activity, notably in the period of advanced science and technology. Mathematics is therefore a crucial element of the academic curriculum of all formal school systems across the globe (Mahanta & Islam, 2012). According to Aithal and Aithal (2019), mathematics is a way of thinking, a way of life, and a language that is accepted globally and thus considered an important part of life in a rapidly changing world; it is a major component of society, individuals, the scientific research community, and technological advancement. For this purpose, tourangeau et al. (2015) asserted that mathematics is a crucial topic both on its own and in light of its important connections to other subjects such as natural science, social

science, engineering, and medicine, among others. Usman et al. (2021), using the same logic, believe that mathematics is a problem that pervades all facets of human endeavor and is regarded as the lifeblood of various fields. Walshaw (2010), adds to the conversation by recognizing mathematics as a crucial international curricular subject that has a significant impact on all aspects of life in the private, social, and urban sectors. That is, mathematics education is fundamental to practically all subjects or areas of study or life. As a result, mathematics is a universal area of study that plays a key role in all countries' school curricula, especially in the early stages. Students' mathematical knowledge, skills, and values are heavily influenced by their parents' education. Parents who engage in educational activities at home influence their children's educational success. Studies have shown that parental influence has a big effect on children's vocabulary, which is important for doing well in mathematics and for other linguistic and social skills (Idris et al., 2020). The communication of educated parents at home, which includes clear pronunciation, good mathematics vocabulary, good mathematical skills, and logical arguments in the discussion, influences children's language development and the development of mathematical concepts because they have already gone through the educational process and are aware of the benefits and setbacks of various educational options. Educated parents can provide their children with appropriate guidance (Riccomini et al., 2015). They can also tell their kids about educational experiences that really get them excited to learn.

These experiences help the individual change their behavior and correctly adapt to the situation, resulting in a successful educated life. All of these interactions at home, including parental guidance, mathematical games, mutual communication, assistance in making educational decisions, and sharing educational experiences with children, have a significant positive impact on student's academic achievement. Idris et al. (2020) says that parents' decisions about how to set up their homes are also affected by how well they understand how education affects students' mathematics grades. Both internal and exogenous factors, such as the educational attainment of the parents, have an impact on mathematics abilities of students (Mutodi & Grandee, 2014). Partnership studies demonstrate that students perform well in school, particularly in core mathematics performance in secondary school when they have support from educated parents. Cerinsek et al. (2013) say that children's responses to real-world situations and their perceptions of how good they are at mathematics are mostly shaped by their parents' socialization.

Education is the best legacy a nation can give to her citizens especially the youths. This is because education is very important in the development of any nation or community. Education is the process of transmitting what is worthwhile to members of the society. The secondary level of education is well acknowledged as the foundation or higher knowledge in tertiary education. In Nigeria, the junior secondary level of education is the phase of formal education after the

compulsory six (6) years of primary school. As a result every parent and educator desires better academic performance at this level of education. Academic performance plays a significant role in both education and learning process. In today's fiercely competitive environment, it has evolved into a predictor of a child's future. Academic performance in every society reflects the educational system's success in targeting and attention to individual's needs (Aloka et al 2018). Education serve as a cornerstone for any form of development. Education of a child begins from the family and effective learning involves partnership of students, teachers and parents.

The family is an essential component of the society of which its activities determine the quality of persons to be produced in the society. The family is the basic unit of social life therefore forms the link between the individual and the society. Similarly, Ogundare (2016) said that the family is the most enduring and permanent of all groups. It is where the child derives our identity and fulfill the potentialities for personal growth and development. It is a fundamental social institution which provides for the rearing of children and for meeting other important human needs, including academic performance. Children's well-being: feeding, clothing, health, education and recreation, to a large extent, are determined by family. Families are made up of different backgrounds which can also affect the academic performance and achievement of a child. Family background according to Osuafor and Okonkwo (2015) is a collective terminology comprising of social class/status, economic status, family size, family structure, parents' educational level, occupation and other factors pertaining to family life. Family background plays a very big role on a child's life.

Family background refers to all the objects, forces and conditions in the family which influence the child physically, intellectually and emotionally. In the same vein, Ogbemudia and Aiasa (2013) posited that the family background includes all the human and material resources present at the home that affects the student's education and living, such as the parent's level of education, their occupation, social-economic status and socializing facilities available in the house. Thus, the home is the basic institution for providing the child's primary socialization and laying the educational foundation for the child upon which the other agents of socialization are built. The education received by a child from parents and significant others at home is most likely to have a highly significant and dominant effects on the behaviors of the child later in life. What the child learns at home and how his/her family motivates him/her towards education contributes to the child's success or failure at school; even though, peer association also plays a very remarkable role in the life and educational success of every individual. Parents are primarily responsible for establishing the family and exercise control over it, they are responsible for the type of family background that exists. Furthermore, Ahawo in Gobena (2018) observed that in modern society, family influence played a very important role in the academic life of a student. He also observed

that families' involvement determines the emotional and material input that further determine the motivation level in students towards education. In families that are large, insufficient amenities, due to poor economic condition could distract the interest and attention of the learner, which may affect the whole process. Children from satisfactory family on the other hand, that has sufficient amenities like internet that provides intellectual stimulation, education is a welcome addition, whereas on the other hand, children from unsatisfactory families or those lacking those materials or amenities go to school hoping to find the essential qualities lacking in their homes. Naturally the expectation of these two categories of learners differs.

According to Odok (2018) family size is the total number of people in a family, consisting of parents and their children. The family type that a child comes from (monogamous or polygamous family), usually determine the size of the family and as well has impact on their children academic performance attested that small family sizes are linked to higher educational attainment. Large numbered families whether rich or poor are difficult to maintain, they are characterized with a high number of children, rowdiness and this does not create convenience for learning. They also create in the upbringing of children some identified problems such as poor feeding, poor clothing, insufficient funds, and lack of proper attention for children, disciplinary problems and malnutrition which impact negatively on children academic achievement. Hanushek in Azumah, Adjei and Nachinaab (2017) averred that family size has effects on quality of life. These include health, nutrition, educational attainment of children, social status of families as well as their ability to adequately cater for the needs of their families. A family size of five including parents is considered sizeable. Such a family is able to cater for the needs of its members. Sizeable family is likely to enjoy the comfort of life with the choice to afford and enjoy identifiable luxuries of life. For example, small family may enjoy higher Socio-economic Status (SES) and invest more in education of its children. On the contrary, a large family size has its own implications on the people concerned. Among them are poor health, low levels of education, low-income status, unemployment, pressure on natural resources due to over exploitation, poor childcare and nutrition. Another factor that has implication to education and students' academic achievement is parental occupation. Occupation generally refers to a job or profession. It means what a person engages in as a means of livelihood. Akujieze in Odo et al (2017) asserted that occupational status measures social position by describing job characteristics, decision making ability and control, psychological demands on the job. Parent's occupation determines the type of education a child receives from his/her parents. Odo et al believed that parental occupation not only determines the level of financial support and motivation available to a student but equips the student with basic educational materials necessary for high academic performance.

Similarly, Usaini and Abubakar (2015) in their study found out that students whose

parents have better occupation score high marks than those students whose parents have least occupation. They found out that parents with formal occupation had better position and assurance of helping students at home than those from informal occupation. These parents have stable and constant income which enabled them to spend much in support of their children education. In the same vein, Ukaegbu (2014) also submitted that higher parental occupational status predicts better educational attainments. Parents' occupation determines the school a child attends, affects the child positively or negatively in his academic performance and parent occupational status predicts better educational opportunities for children which in turn enhances their academic performance. Higher parental occupational status predicts better educational attainments. Parent's occupation determines the type of education children receive from their parents. Occupation of parent tends to exert a considerable influence on their children's education or academic performance in school. The kind of occupation a parent engages in determines his income as well as his social status. It is seen that difference in the occupation of parents is often manifest in different styles of child rearing, different ways of disciplining children and different ways of reacting to their children. Parents with high occupational class or prestigious occupations tend to provide a source of security to their children by their ability to meet emergencies, absorb economic shocks and offer the means to academics comfortably. Parental income level is among the several parental factors that have been linked to students' academic performance. This is the value of any payments paid or provided to a parent (from any source) that are used by parents to replace lost or diminished income or used to meet usual living expense of the parents. In support of this finding, Oloo in Gobena (2018) also stated that family income influence is an important factor affecting both female and male students' academic performance. Okioga (2013) also reported that families with low socioeconomic status often lack the financial, social, and educational supports that characterize families with high socio-economic status. Poor families also may have inadequate or limited access to community resources that promote and support children's development and school readiness. Parents may have inadequate skills for such activities as reading to and with their children, and they may lack information about childhood immunizations and nutrition. In the same vein, Asiegbu and Ezeugbor (2018) opined that children from high and middle socio-economic status are better exposed to learning environment at home because of provision and availability of extra learning facilities and children from low socio-economic status parents do not have access to extra learning facilities, hence the opportunity to get to the top may not be very easy. Furthermore, Egalite (2016) also believed that family income has a direct impact on a child's academic outcomes. Parents with greater financial resources can identify communities with higher-quality schools and choose more-expensive neighborhoods the very places where good schools are likely to be. More-affluent parents can also use their resources to ensure that their children have access to a full range

of extracurricular activities at school and in the community. Educational qualifications are the number of schools attended and the type of certificates obtained right from primary to tertiary levels.

The influence of educational qualification of parents on the academic performance of their children is evident. According to Zehri and Abdelbaki (2016) parents' educational qualifications influence the academic performance of students. This is because the parents would be in a good position to be second teachers to the child and even guide and counsel the child on the best way to perform well in education and provide the necessary materials needed by the child. Furthermore, Rana (2015) noted a significant positive relationship between parents' level of education and students' academic achievement. Parents have an enormous influence on their children's' education for several reasons, but most importantly, because they are their children's first teachers. The education that children receive, is very much dependent on the education that their parents received when they were children. Parents strongly affect this social learning because they are the biggest influence at this early stage in their children's lives. Oloo in Gobena (2018) also reported that family education and socio-economic status have an impact on students' academic achievements at any level of education. In a similar development, Ibrahim et al (2017) in a regression analysis of parents and family life of children, discovered a significant difference between educational background of both the father and mother of high academic achievement and low academic achievement of some group of boys, 81% of the parents of the high achieving group had a college of education graduate degree, where 69% of the parents of the low achievement group especially the mothers had educational qualification below the college level. Educated parents better understand their role and responsibilities in their children education, therefore they are always active in participating in children's educational activities at home as well as in school. On the other hand, less educated parents feel less efficacious in helping their children and feel uncomfortable in interacting with teachers and participating in school programs and activities. Educated parents belief that they are enough capable in helping their children's Education, and keep high educational expectations concerning their children's success, therefore, in turn, they tend to be more involved in their children's educational attainment (Odo et al, 2017). The socio-economic status of the family has its own consequences to educational/academic performance.

Academic performance is the amount of knowledge attained by a student in achieving their short or long term educational goals. Baht and Khandai (2015) defined academic performance as the knowledge that students obtain in subjects usually determined by test scores assigned by teachers. Ogbavwudu (2022) opined that different variables do interact to influence students' academic performance. These variables among others include parenting style, family background, socio-economic status of homes and students' school environment among others. Academic performance is influenced by the

expectations parents set and the support they provide at home. High but realistic expectations, when communicated clearly by parents, have been shown to correlate with improved student performance across subjects, particularly in reading and mathematics. Jeynes (2016) found that students whose parents maintained consistent academic expectations performed better than peers whose parents were less involved or set lower expectations. There are findings that suggest that family background present factors that play a crucial role in shaping a student's educational performance and attitude towards schoolwork. These factors include:

(1) Parental Education and Parental Occupational Status

Parents with higher levels of education are more likely to be involved in their children's learning, provide academic support, and create a home environment that fosters intellectual curiosity and learning. Parents' occupations can also influence their children's academic performance. Studies have shown a correlation between parents in higher-status occupations and higher academic achievement in their children, potentially due to factors like income, social networks, and the ability to provide a stimulating home environment.

(2) Parental Involvement and Support:

(a) Homework Assistance: Parents who actively engage with their children's homework and provide support in understanding mathematical concepts can significantly improve a student's performance.

(b) Creating a Positive Learning Environment: Parental involvement fosters a positive learning environment at home, which can include providing a dedicated study space, encouraging a growth mindset, and celebrating effort and progress.

(c) Parental Attitude and Beliefs: Parents' attitudes towards mathematics can influence their children's own perceptions of the subject. If parent's express confidence in their children's abilities and demonstrate a positive attitude towards mathematics, it can positively impact the child's self-esteem and motivation.

(3) Family Structure and Size:

(a) Two-Parent versus Single-Parent Families: Research suggests that students from two-parent families may have an advantage in mathematics, potentially due to greater parental support and resources.

(b) Family Size: Smaller family sizes are often associated with increased parental attention and support, which can lead to better academic performance in mathematics.

(4) Home Environment and Culture:

(a) Cultural Communication: The level of cultural communication and exposure to intellectual activities within the home can influence a child's language development and mathematical understanding.

(b) Number of Books: A home with a large number of books is often associated with a higher level of literacy and can positively impact a student's mathematical vocabulary and comprehension skills.

(c) Language Spoken at Home: The language spoken at home can influence a child's ability to grasp mathematical concepts, especially in the early years of learning.

In conclusion, family background is a complex and multifaceted factor that significantly influences a student's academic performance in mathematics. Recognizing the impact of these various factors and implementing strategies to support students and families can help create a more equitable and successful learning environment for all.

Statement of the Problem

The growing recognition that the junior secondary level of education is the foundation for advanced knowledge has made high-quality junior secondary school education more important than ever before. Poor academic performance among students is indeed a thing of great concern to parents, teachers, school management, curriculum designer, government and the general public. To this effect, lots of research has been conducted in the past to ascertain factors that affects students' academic performance ranging from social to psychological factors such as gender, socio-economic status, and the poor attitude of teachers.

However, little research has been done to uncover the influence of parental education, socio-economic income status, conducive learning environment at home, family size and parental attitude. The problem of the study is how parental education, socio-economic status of parents, conducive learning environment at home predict academic performance among junior secondary school students (Odoh and Odigbo, 2017). Ogbomudia and Aisa (2017) again opined that family background can affect a child's academic performance negatively while Odoh et al did their work on accounting, Ogbemudia and Aisa did their own on English Language as no work has been done on such topic in mathematics that necessitates this study.

Purpose of Study

The purpose of this study is to investigate the impact of parental background on students' academic performance in Onitsha Education Zone of Anambra State. Specifically, the study seeks to:

1. Investigate the effect of parental educational background on students' academic performance in Mathematics in Onitsha Education Zone of Anambra State.

2. Examine the impact of parent's socio-economic background on students' academic performance in Mathematics in Onitsha Education Zone of Anambra State.

3. Examine how learning environment at home affect students' academic performance in Mathematics in Onitsha Education Zone of Anambra State.

Research Questions

1. How does parental education affect academic performance of junior secondary school two students in Mathematics Onitsha Education Zone of Anambra State?

2. How does socio-economic status of parents affect the academic performance of junior secondary school two students in Mathematics Onitsha Education Zone of Anambra State?
3. How does conducive learning environment affect the academic performance of junior secondary school two students in Mathematics in Onitsha-North Local Government Area of Anambra State?

Research Hypotheses

H_1- There is no significant relationship between parental education and academic performance of secondary school students in Onitsha Education Zone in Anambra State.

H_2 -There is no significant relationship between socio-economic status of parents and academic performance of secondary school students in Onitsha Education Zone in Anambra State.

H_3 - There is no significant relationship between conducive learning environment and the academic performance of junior secondary school students in Mathematics in Education Zone in Anambra State.

Research Method

The study adopted descriptive survey research design, which is commonly used in educational research due to its efficacy in establishing relationships between variables without manipulating them. This quantitative approach allowed for statistical analysis of numerical data, providing measurable insights into the correlation between impact of family background and students' academic performance. This design was particularly appropriate for the study as it provide an objective, data-driven basis for exploring the impact of family background on students' academic performance in Mathematics among Junior Secondary Students in Onitsha Education Zone, given the complex social dynamics in Nigerian educational setting. The area of the study is based in Onitsha Education Zone in Anambra State.

The population of the study consisted of all junior secondary school two (2) students from selected Secondary Schools in Onitsha Education Zone of Anambra State and their parents. The population of the study is 2,800, as gotten from personnel and research department of PPSSC, Onitsha Education Zone. The researcher made use of Stratified Random Sampling Techniques. The sampling technique was accurate as it mitigated potential biases and provided a balanced representation of various sub-groups within. In Onitsha, the sample is made up of one thousand four hundred (1400) students in Onitsha Anambra State.

To ensure content and construct validity, the questions were constructed congruently with specific research question. The instrument was validated by a mathematics and measurement/evaluation expert for content and construct validity. The researchers ascertained the reliability of the instruments through test re-test that was done repeatedly after two weeks interval. The instruments were administered to pupils outside the study area that have the same similarities with the

study area. The coefficient of 0.82 was achieved using Pearson Product Moment (Pearson r). A structured questionnaire will be designed by the researcher and named Family Background and Student Academic Performance Questionnaire (FBSAPQ), and administered to the respondents which sought to elicit relevant information from respondents. It was developed as the primary data collection instrument for both students and parents. The questionnaire consisted of three (3) sections: demographic information, parental communication and academic performance.

Demographic questions gathered information on variables such as age, gender, school grade, and family socio-economic status. The section on effect of family background and students' academic performance included questions on communication frequency, topic discussed, and the perceived quality of conservation. Questions on academic performance focused on reported academic grades and class ranking, supplemented by actual grade reports where available. The questionnaire items on effect of family background and student academic performance were adapted from validated instruments used in order to enhance reliability and validity. Before deployment, the questionnaire was pilot tested with thirty (30) students from a school to test clarity, reliability, and validity, resulting in a Cronbach alpha coefficient of (0.82) for internal consistency; which indicates a high reliability level. Parental consent and student assent were obtained for all participants involved in the research. Data collection took place over two (2) months and was facilitated by two trained research assistants who distributed and collected questionnaires. During data collection, the research assistant emphasized the confidentiality of the information provided, assuring participants that their responses would only be used for academic purposes. This assurance was intended to reduce social desirability bias, particularly on sensitive questions about effect of family background and students' academic performance. Data was analyzed using descriptive and inferential statistics. Descriptive statistics provided an overview of the data, including how often parents communicated with their wards and the typical academic performance within the sample. Inferential statistics tests were performed to access the effect of family background on students' academic performance. Correlation analysis was employed to measure the strength and direction of the relationship between family background variables and academic performance. The Pearson correlation coefficient was calculated to determine the association between variables such as frequency of student academic performance.

Presentation And Analysis of Data

The data collected were organized, analyzed and interpreted using mean score and standard deviation, while the hypothesis was tested at p (< 0.05).

Research Question 1: To what extent does parental education influence academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State?

Table 1: Extent parental education influence academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State.

S/N	Item description	SA	A	D	SD	$\bar{X}$	*SD*	Decision
1	I feel confident contributing to class discussions.	100	180	64	50	2.84	.949	Accepted
2	I actively participate in class because I believe in my ability to contribute meaningfully.	200	144	24	26	3.31	.857	Accepted
3	I am motivated to participate in class activities due to my self-confidence.	156	180	43	15	3.21	.784	Accepted
4	I avoid participating in class discussions because I doubt my capabilities.	112	204	52	26	3.02	.826	Accepted
5	I engage in class activities even when I am unsure of the correct answers.	120	160	80	34	2.93	.922	Accepted
Cluster Mean and Standard Deviation		**$\bar{X}$= 3.06**	**SD= .870**					**Accepted**

Table 1 indicates that the mean ratings of respondents' responses for items 1 to 5 are 2.84, 3.31, 3.21, 3.02, and 2.93 with corresponding standard deviations of .949, .857, .784, .826, and .922 respectively. Respondents rated all items above the 2.50 cut-off point. The cluster mean of 3.06 with the cluster standard deviation of .870 is above the cut-off point of 2.50 which indicates that parental education influences academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State.

Research Question 2: To what extent does socio-economic status of parents influence the academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State?

Table 2: what extent does socio-economic status of parents influence the academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State.

S/N	Item description	SA	A	D	SD	$\bar{X}$	*SD*	Decision
6	I attend classes regularly because I believe I can succeed academically.	320	59	15	0	3.77	.502	Accepted
7	My confidence in my academic abilities motivates me to attend classes consistently.	160	180	39	15	3.23	.778	Accepted
8	I am confident that attending lectures will improve my academic performance.	128	120	80	66	2.79	1.07	Accepted
9	I sometimes miss classes due to a lack of confidence in my academic abilities.	120	240	28	6	3.20	.630	Accepted

10	I attend classes even when the subject matter seems difficult because I believe I can handle it.	140	164	56	34	3.04	.918	Accepted
Cluster Mean and Standard Deviation $\bar{X}$ **= 3.206** **SD= .780**								**Accepted**

Table 2 indicates that the mean ratings of respondents' responses for items 6 to 10 are 3.77, 3.23, 2.79, 3.20, and 3.04 with corresponding standard deviations of .502, .778, 1.07, .630, and .918 respectively. Respondents rated all items above the 2.50 cut-off point. The cluster mean of 3.206 with the cluster standard deviation of .780 is above the cut-off point of 2.50 which indicates that socio-economic status of parents influences the academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State.

Research Question 3: To what extent does conducive learning environment influence the academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State?

Table 3: What extent does conducive learning environment influence the academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State.

S/N	Item description	SA	A	D	SD	$\bar{X}$	*SD*	Decision
11	I believe in my ability to manage my study time effectively.	171	163	0	60	3.13	1.01	Accepted
12	I feel confident in developing a study plan that helps me achieve my academic goals.	87	242	5	60	2.90	.914	Accepted
13	I tend to procrastinate on studying because I doubt my ability to understand the material.	175	141	18	60	3.09	1.04	Accepted
14	My self-confidence motivates me to study regularly.	81	230	23	60	2.84	.922	Accepted
15	I can effectively overcome distractions while studying because I believe in my academic abilities.	185	131	0	78	3.07	1.12	Accepted
Cluster Mean and Standard Deviation $\bar{X}$ **= 3.006** **SD= 1.0012**								**Accepted**

Table 3 indicates that the mean ratings of respondents' responses for items 11 to 15 are 3.13, 2.90, 3.09, 2.84, and 3.07 with corresponding standard deviations of 1.01, .914, 1.04, .922, and 1.12 respectively. Respondents rated all items above the 2.50 cut-off point. The cluster mean of 3.006 with the cluster standard deviation of 1.0012 is above the cut-off point of 2.50 which indicates that conducive learning environment influence the academic performance of junior secondary school two

students in Mathematics in Onitsha Education Zone of Anambra State.

Hypotheses Testing

In testing the hypotheses of this study, Pearson product moment correlation was used to test the responses of respondents at 0.05 level of significance.

Hypothesis 1 : There is no significant relationship between parental education and academic performance of secondary school students in Onitsha Education Zone in Anambra State.

Table 4: Test of Significance of correlation between parental education and academic performance of secondary school students.

Variables	No	r	P-Value	Decision
Parental Education	1400	0.112	0.018	Significant
Academic Performance	1400			

Table 4 shows that with r value of 0.112 and p-value of 0.018 which is less than 0.05, the relationship between parental education and academic performance of secondary school students is significant. The null hypothesis was therefore rejected meaning that there is a significant relationship between parental education and academic performance of secondary school students.

Hypothesis 2: There is no significant relationship between socio-economic status of parents and academic performance of secondary school students in Onitsha Education Zone in Anambra State.

Table 5: Test of significance of correlation between socio-economic status and academic performance of secondary school students.

Variables	No	r	P-Value	Decision
Socio-economic Status	1400	0.128	0.007	Significant
Academic Performance	1400			

Table 5 shows that with r-value of 0.128 and p-value of 0.007 which is less than 0.05, the relationship between socio-economic status of parents and academic performance is significant. The null hypothesis was therefore rejected meaning that there is a significant relationship between socio-economic status of parents and academic performance of secondary school students.

Hypothesis 3: There is no significant relationship between conducive learning environment and the academic performance of junior secondary school students in Mathematics in Onitsha Education Zone.

Table 6: Pearson product moment correlation coefficient between conducive learning environment and academic performance of junior secondary school students.

Variables	No	r	P-Value	Decision
Conducive Environment	1400	0.162	0.003	Significant
Academic Performance	1400			

Table 6 shows that with r-value of 0.162 and p-value 0f 0.003 which is less than 0.05, the relationship between conducive learning environment and academic performance of junior secondary school students is significant. The null hypothesis was therefore rejected meaning that there is a significant correlation between conducive learning environment and academic performance of junior secondary school students.

Discussion of Findings

Table 1 indicates that the mean ratings of respondents' responses for items 1 to 5 are 2.84, 3.31, 3.21, 3.02, and 2.93 with corresponding standard deviations of .949, .857, .784, .826, and .922 respectively. Respondents rated all items above the 2.50 cut-off point. The cluster mean of 3.06 with the cluster standard deviation of .870 is above the cut-off point of 2.50 which indicates that parental education influences academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State.

Table 2 indicates that the mean ratings of respondents' responses for items 6 to 10 are 3.77, 3.23, 2.79, 3.20, and 3.04 with corresponding standard deviations of .502, .778, 1.07, .630, and .918 respectively. Respondents rated all items above the 2.50 cut-off point. The cluster mean of 3.206 with the cluster standard deviation of .780 is above the cut-off point of 2.50 which indicates that socio-economic status of parents influences the academic performance of junior secondary school two students in Mathematics in Onitsha Education Zone of Anambra State.

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Table 4 shows that with r value of 0.112 and p-value of 0.018 which is less than 0.05, the relationship between parental education and academic performance of secondary school students is significant. The null hypothesis was therefore rejected meaning that there is a significant relationship between parental education and academic performance of secondary school students.

Table 5 shows that with r-value of 0.128 and p-value of 0.007 which is less than 0.05, the relationship between socio-economic status of parents and academic performance is significant. The null hypothesis was therefore rejected meaning that there is a significant relationship between socio-economic status of parents and academic performance of secondary school students.

Table 6 shows that with r-value of 0.162 and p-value 0f 0.003 which is less than 0.05, the relationship between conducive learning environment and academic performance of junior secondary school students is significant. The null hypothesis was therefore rejected meaning that there is a significant correlation between conducive learning environment and academic performance of junior secondary school students.

According to the 2020 West African Examination council (WAEC) grading system, a score of 70% falls within Grade B2 (very good). This result shows that there is a significant relation between students' academic performance and parents' level of education. Highly educated parents understand the value of education by providing emotional, financial, and supervisory support to their children which enhances their academic achievement. According to Robert et al. (2019, p.345-359) who opined that for parents to become actively involved in their children's learning process by creating a positive impact on their academic performance, they must have had previous experience with the formal education system.

In the same development, Roberts et al. (2019, p.345-359) further concluded that mothers with higher education qualifications can provide more support to their children in problem solving situations. As shown in table 1, all the fathers of the participants (100%) and 88% of their mothers are gainfully employed. Analysis in this regard indicates that 35% of the fathers are professionals which include medical doctors, engineers, surveyors, pastors, architects, lawyers, journalists etc. Furthermore, 32% of them are self-employed while 16% are civil servants, only 12% are traders. On the other side, the mothers are 88% employed, 31% of them skilled and professionals. Table 3 shows 90% of the students pay their tuition regularly, 68 % have access to internet facilities in their homes. 76% have specific study places in their homes, while 74% have home study teachers. This shows that the employment status can and income level of parents' impact students' academic performance. The higher the parents' income, the more financial support they offer to their children in terms of provision of learning resources and prompt payment of school tuition. Becker (2021) revealed that family income also influenced children's educational aspirations, their status among their peers, their neighborhood quality, the stability of their lives, and insecurity within their family, any or all of which may influence child outcomes. Furthermore, the inability to exploit the work/home specialization afforded by two-parent families' mean that child care expenses are often greater for single mothers than they would be with a husband. Another benefit of specialization is that married parents may self-invest

strategically in forms of human capital that, overtime, magnify the gains from a work/home division of labour.

Wilson (2019) argued that the strength of flexible family roles in African families has not been taken into consideration. The family structure model fails to consider aspects of parent-child relationships and socialization processes within African families. The family functioning model suggests that children may be better off in a cohesive single-parent home than in a conflictive two-parent home. Families with high socio-economic status often have more success in preparing their children for school because they typically have access to wide range of providing their young children with high quality child-care, books and encourage children in various learning activities at home.

Conclusion

There is a broad writing on the significance of family social background and financial assets on students' school accomplishment. Students from low-SES background in most cases have the least grades. Financial status is regularly estimated by numerous markers, like parents' education level, family income. These markers reflect components identified with social and financial assets accessible in the student's home. The education and pay levels of parents decide from a more extensive view the degree to which students can perform. Finally, this study established that home background is a key indicator which influences academic performance in science among secondary school students.

Recommendations

Based on the findings of this study, the researcher hereby makes the following recommendations:

1. Parents, guardians or sponsors and the government should acknowledge the contribution of family background to effective teaching and which would eventually determine the extent to which students would perform in their academics.
2. Efforts should be made by parents and guardians not to allow their parents' socio-economic status and educational background; level of income and family size influence their academic pursuits either consciously or unconsciously. This will assist to improve their performance.
3. Parents should endeavor to control the size of their families to a manageable level. This will enable them to make good use of available resources to take care of their children education, and in turn result to high level of academic performance of such students.
4. Government should work with parent and teacher association, as well as the private sector and civil society organizations to find the best and most constructive ways to improve the quality of education.
5. Innovation has to be harnessed, and new partnerships must be forged so that students will be improved academically. Additionally, facilities such as laboratory and library should be mapped out as their absence in any school could render teachers handicap in discharging their duties.

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