

HOME STRUCTURE: DETERMINANT OF STUDENTS' PERFORMANCE IN MATHEMATICS AND ENGLISH LANGUAGE IN PUBLIC SECONDARY SCHOOLS IN AGBANI EDUCATION ZONE OF ENUGU STATE.

ASSIMONYE, AUGUSTA CHIEDU
Curriculum Department,
Federal College of Education (Technical),
Umunze, Anambra State.
assimonyechiedu@yahoo.com

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NNEJI, SAMUEL ONYINYECHI (PhD)
Department of Mathematics and Computer Education,
Enugu State University of Science and Technology,
Agbani, Enugu, Nigeria.
nnejipsalm@yahoo.com, sonmatics@gmail.com

Abstract

The purpose of this study was to ascertain if home structure could determine students' performance in mathematics and English language in public secondary schools in Agbani education zone of Enugu state. Causal comparative or ex post facto research design was adopted for the study. The study was conducted in Enugu state, specifically in Agbani Education zone. Two research questions and two hypotheses guided the study. Proportionate stratified random sampling techniques were used to draw 333 Junior Secondary School Two (JSS2) students from two secondary schools in the Education zone. The sample was made up of 132 students from monogamous homes and 201 students from polygamous homes. The sample also composed of 192 students from single parent homes and 141 students from two parent homes. Two instruments, a questionnaire and a form were used for data collection. The questionnaire was used to collect data on the students' home structure while the form was used to collect data on the students' performance from records and vital documents in their schools. Data collection was personally undertaken by the researchers who visited the schools and administered the instruments. Mean and standard deviation were used to answer the research questions while z-test statistic was used to test the hypotheses at 0.05 level of significance. Major findings of the study revealed that home type (monogamy and polygamy) did not influence the secondary school students' performance in English language and mathematics significantly, but parent type did. It was recommended among other things that teachers should be trained to handle students' individual home structure differences in their teaching in order to elicit the desired performance from students.

Keywords: Home structure, Academic Performance, Core subjects, Secondary Education, Enugu State.

Introduction

Home refers to a family living together and the way it behaves. Aga (2011) observed that home is a social unit that cuts across all cultures in the world. It is the basic social group united through bonds of kinship or marriage, which is present in all societies. It can be made up of a group of one or two parents and their children. The home is the earliest and the most basic of all the social institutions in every society, (Rex, 2013). It is believed that the home was instituted by God himself when he gave Eve to Adam to be his helpmate. Eze (2011) defined home as the most personal and smallest social unit in society which consists of parents and the children or all those persons descending from common ancestors. It is therefore the nucleus of the global world. Home structure, therefore, refers to the details of a person's home or family including all the experiences social, cultural, educational, class, numerical and financial structure or status, (Obe, 2009). It is evident that home structure is such a wild concept to be discussed exhaustively in a single study. Consequently, the researchers in this study restricted their use of home structure to only two indices namely; home type (monogamy and polygamy) and parent type (single parent and two parents).

Obe (2009) defined monogamous home as a home consisting of a man, his wife and children while polygamous home is a home consisting of a man with many wives and consequently, in most cases, with many children. Before now, polygamy was the most common type of home in most part of Africa. This was largely because the major occupation of the people concerned was agriculture. In those days, a man with many wives and consequently many children had more hands to work on the land. As a result of this, he could produce more goods and then enjoy the prestige that is associated with being the head of a large home, (Ola, 2010). Surprisingly, even today, polygamy is still the choice of many, despite the seeming social and economic problems associated with it. Consequently, most Nigerian public secondary schools are filled with students from both monogamous and polygamous homes.

Remi (2009) hinted that while most polygamous homes are characterized by many children with problems of over crowdedness, lack of sufficient food and money, lack of adequate parental care, fighting, quarrelling, etc, the monogamous homes are in no way better as a good number of such homes are languishing in abject poverty, hassling and struggling to meet up with life challenges. Davidson (2013) averred that there is still no definitive conclusion on the influence of home type (monogamy/polygamy) on secondary school students' performance in basic and compulsory subjects such as English language and mathematics. Hence, the need for this study which investigated the extent to which home type (monogamy/polygamy) could determine students' performance in English language and mathematics in public secondary school. As stated earlier, the second index of home structure treated in this study was parent type (single parent/two parent).

A single parent may have never been married before, yet has children or a child. Others may have married before but lost the partner through death or divorce/separation, (Dego, 2007). Either way, a single mother or father as defined by Rex (2013) is a man or woman who once was married with or without children, but later became single due to the aforementioned problems. More so, Jacobson (2012) described a single parent as a man or woman who has never been married but has children. The increase in single parent homes not only poses a great challenge to the society but also may influence the children from such homes negatively. Two parent homes, according to Dego (2007) refer to homes where both

parents, that is, mother and father are living together with their children. In this study, homes where both parents are alive but are not living together with their children were regarded as single parent homes. Research evidences such as Davidson (2013) and Remi (2009) reported conflicting findings on the influence of parent type on a child's general behaviour both at home and school. While Davidson found children from two parent homes to be better behaved and more likely to be positively influenced. Remi found no significant difference in the influence of single and two parents home structure on children's general behaviour both at home and school. Once again, this suggests a no definitive answer situation hence, the need for more investigations through studies such as this present work.

Kelly (2012) argued that, given the number of hours a child spends at school in a day, one cannot neglect the roles of parents in every child's upbringing. Most secondary schools operate between 7.30am and 2pm while others that conduct extra lessons extend to 3.30pm, on the whole, giving a maximum school period of 8 hours in a day. The child then is expected to spend the remaining 16 hours in the day at home. If we assume that every child sleeps for 8 hours (9.30pm-5.30am) daily, we may still postulate that the child has at least 8 hours to spend with his parents at home. In this case, the home has a tremendous influence on the children. Nuhu (2009) posited that the type of home a child has may influence the learning behavior of the child in terms of his acceptance of the values by which the home is adapted to. A home in which positive attitudes are not encouraged, love is not given and affection denied, will not be a suitable home environment for growing and developing a child. When a child is denied these rights or privileges, a negative attitude is developed towards the learning environment. The child tends to take things lightly and he may be very resistant and unserious concerning school activities, (Dubey, 2009). Summarily, what is not certain is the nature of home structure influence on the performance of these children especially in core subjects such as English language and mathematics. The importance of English language and mathematics in Nigerian educational system cannot be overemphasized. Little wonder while English language and mathematics are compulsory at all Nigerian educational levels (pre-basic, basic, post-basic and tertiary). This study therefore is most timely.

Purpose of the Study

The main purpose of this study was to ascertain if home structure could determine students' performance in mathematics and English language in public secondary schools in Agbani education zone of Enugu state. Specifically, the study determined;

- i. the mean English language and mathematics performance scores of students from monogamous homes and their counterparts from polygamous homes
- ii. the mean English language and mathematics performance scores of students from single parent homes and their counterparts from two parent homes

Research Questions

The following research questions guided the study.

1. What are the mean English language and mathematics performance scores of students from monogamous homes and their counterparts from polygamous homes?
2. What are the mean English language and mathematics performance scores of students from single parent homes and their counterparts from two parent homes?

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant difference between the mean English language and mathematics achievement scores of students from monogamous homes and their counterparts from polygamous homes.
2. There is no significant difference between the mean English language and mathematics performance scores of students from single parent homes and their counterparts from two parent homes.

Methodology

Causal comparative or ex post facto research design was adopted for the study. The study was conducted in Enugu state, specifically in Agbani Education zone. Two research questions and two hypotheses guided the study. Proportionate stratified random sampling techniques were used to draw 333 Junior Secondary School Two (JSS2) students from two secondary schools in the Education zone. The sample was made up of 132 students from monogamous homes and 201 students from polygamous homes. The sample also composed of 192 students from single parent homes and 141 students from two parent homes. Two instruments, a questionnaire and a form were used for data collection. The questionnaire was used to collect data on the students' home structure while the form was used to collect data on the students' performance from records and vital documents in their schools. Data collection was personally undertaken by the researcher who visited the schools and administered the instruments. Mean and standard deviation were used to answer the research questions while z-test statistic was used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1

What are the mean English language and mathematics performance scores of students from monogamous homes and their counterparts from polygamous homes?

Table 1: Mean English language and mathematics performance means and Standard Deviations of students from different home types.

Home type	n	English language		Mathematics		Grand	
		Mean	SD	Mean	SD	Mean	SD
Monogamous	132	66	0.50	62	0.62	64	0.51
Polygamous	201	67	0.98	59	1.00	63	0.72

From table 1, students from monogamous homes had 66 and 62 as mean for English language and mathematics scores respectively. Thus, a grand mean of 64. While students from polygamous homes had 67 and 59 as mean English language and mathematics scores

respectively and a consequent grand mean of 63. All through the scores, the standard deviation for both groups remained very low, indicating that the mean in each case actually represented the ability of the groups. From the mean scores, both groups attained pass marks according to the secondary school grading standard.

Research Question 2

What are the mean English language and mathematics performance scores of students from single parent homes and their counterparts from two parent homes?

Table 2: Mean English Language and Mathematics performance scores and Standard Deviations of students of different parent types.

Parent type	n	English language		Mathematics		Grand	
		Mean	SD	Mean	SD	Mean	SD
Single	192	66	4.22	59	3.61	62.5	3.82
Two	141	78	1.15	66	0.28	72	0.76

The result shown in table 2 above shows that both students from single and two parents homes passed English language and mathematics. However, students from two parent homes performed better with a grand mean of 62.5 than their counterparts in the single parent homes who had a grand mean of 72. Furthermore, the standard deviation of the two parent homes students, (0.76) was far less than that of single parent homes, (3.82) indicating that there were more extreme scores in the single parent homes than the two parent homes.

Hypothesis 1

There is no significant difference between the mean English language and mathematics performance scores of students from monogamous homes and their counterparts from polygamous homes.

Table 3: z-test analysis for hypothesis 1

Home Type	n	Mean	SD	z-cal	z-critical	Decision
Monogamous	132	64	0.51	0.61	1.96	Not Significant (Do not reject hypothesis)
Polygamous	201	63	0.72			

From table 3, the z-calculated value of 0.61 is less than the z-critical (1.96), Hence, hypothesis 1 is not rejected as stated indicating that there is no significant difference between the mean English language and mathematics performance scores of students from monogamous homes and their counterparts from polygamous homes.

Hypothesis 2

There is no significant difference between the mean English language and mathematics performance scores of students from single parent homes and their counterparts from two parent homes.

Table 4: z-test analysis for hypothesis two

Parent type	n	Mean	Df	z-cal	z-critical	Decision
Single	192	62.5	3.82	2.04	1.96	Significant (Reject hypothesis)
Two	141	72	0.76			

From table 4 above, z-calculated value of 2.04 is greater than the z-critical (1.96). Therefore, hypothesis 2 is rejected as stated indicating that there is significant difference between the mean English language and mathematics performance scores of students from single parent homes and their counterparts from two parent homes, in favour of students from two parent homes.

Discussion of the Findings

The findings of the study revealed that home type (monogamy/polygamy) did not have significant influence on the performance of the students who served as subjects of the study. This is obvious because both students from monogamous homes and their counterparts from polygamous homes performed very well in English language and mathematics. Moreover, there was no significant difference between the mean English language and mathematics performance scores of students from different home types. Contrary to the findings of this study, Gbenga (2011) and Egbu (2012) found in their separate studies that polygamy inhibited students' performance. They all recommended monogamy. But Eze (2011) and Ajom (2012) faulted monogamy and found polygamy to have positive influence on students' performance. What is striking about the finding of this present study on home type is that both students from monogamous and polygamous homes performed very well in English language and mathematics.

It is, therefore, obvious that the way individual homes whether monogamous or polygamous handle their wards/children, determines the influence on their performance in secondary school. While many polygamous homes are overcrowded and rowdy, a good number of polygamous homes provide not only study partners but also elder siblings who coach the younger ones. Similarly, while many students from monogamous homes have every study material in abundance, other monogamous homes languish in abject poverty. Summarily, while some religions, economic factors and other variables discourage Polygamy, it may not be completely correct to associate polygamy with failure or poor performance of students in secondary schools. In the same vein, it is not likely that all students from monogamous homes will out-perform their counterparts from polygamous homes. And so, even when it happens, it may not be correct to attribute the performance to the students' home type. Parents and students alike can manage or mismanage their homes and consequently have different results in all facets of life, including academic performance.

On influence of parent type (single parent/two parent) it was found in this study that students from two parent homes performed better in English language and mathematics than their counterparts from single parent homes. Ayodele (2012) as well as Dickson (2012) found the same result in their separate studies. Contrarily, Berry (2011) and Agbenyi (2013) found that students from single parent homes out-performed their counterparts from two parent homes. Although this study did not treat the complexity of parent type in its entirety, it is expedient to state that single parent may refer to a man whose wife is dead, a woman whose husband is dead, divorced wife/husband or unmarried boy or girl who has a child. In the same vein, two parent homes may not necessarily refer to father and mother, it could also apply to husband and wife who are guardians to a student. The above information will help us better appreciate the differences in various research findings on influence of parent type on secondary school students' academic performance. However, one cannot deny the fact that two good hands are likely to elicit better results than one good hand.

An underlying fact is that individual differences will still play prominent role. For instance, the influence of a single parent home with a woman may not be the same as the influence of a single parent home with a man: emphasis should be more on the parents appreciating the need to give their children functional education. Furthermore, the result found in this study may further join the hues and cries of religious leaders, traditional rulers and the government on the need to maintain peaceful homes. Peaceful homes shall, to a very great extent promote healthy society, discourage divorce and even sustain longer lives of spouses. This will afford more students the privilege of being raised by two parents. This will expectedly enhance their academic performance as seen in the result of this study.

Conclusion

Based on the findings of this study, the following conclusions were made;

1. Home type (monogamy and polygamy) did not influence the secondary school students' performance in English language and mathematics significantly.
2. Parent type influenced secondary school students' performance in English language and mathematics significantly, with students from two parent homes performing better than their counterparts from single parent homes.

Recommendations

Consequent upon the findings made in this study, the following recommendations are deemed necessary:

1. Teachers should be trained to handle students' individual home structure differences in their teaching in order to elicit the desired performance from students.
2. Secondary school administrators and teachers should include home structure and parent type among students' biodata they should be collecting. This will help teachers to know the characteristics of the students entrusted under their care.
3. The government and other secondary school proprietors should organize periodic seminars and capacity building workshops for secondary school teachers on how to handle the individual differences among students of diverse home structures in their teaching.

4. Counselors in various secondary schools should train students through periodic seminars on how to cope in school irrespective of their home structures. That is, how to overcome the various challenges of their home structures.

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