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## Influence and Relationship of Birth Order and Secondary School Students' Academic Achievement

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# Academic Leadership Journal

## Introduction

Academic achievement or the level of academic success is the main concern of all stakeholders of education. High achievement has, however, become a great task before the students but it is sad to observe that poor academic achievement were recorded both at the secondary and tertiary levels of education in Nigeria (Tenibiaje, 2009).

Several researchers, e.g. Tenibiaje (2009), Desoete (2008), Adeyemo (2007), Adesemowo (2005) and Aremu (2000), worked on factors affecting academic achievement of students with the belief that academic achievement would be improved upon if the factors were adequately addressed. Some of the factors to which poor performance had been attributed include: self-efficacy, self-concept, peer influence, parental involvement, state of the school, the society, and government. Apart from these factors, students birth order and family size may be related to and influence secondary school students' academic achievement. Aremu, Oluwole and Fayombo (2001) observed that academic achievement leaves much to be desired and there is every need for researchers to continue to explore this frontier of knowledge.

Birth order is the variable considered in this study. It refers to the position a child occupies in the birth order or the child's rank by age among his siblings. Birth has been shown to affect personality, self-esteem and cognitive achievement (Polit & Falbo, 1988). Goose (2000) noted that the position of a child in his family is a powerful predictor of personality and academic achievement and it is a factor that parents and teachers need to consider as they look for ways to raise happy and well adjusted children. The studies of Teti, Sakin, Kucena and Corns (1996) emphasizes security of first born attachment decreases significantly after the birth of the second born. Aremu and Oluwole (2001) inferred from this submission that the first born many develop security anxiety which may affect his academic performance. Most of the first borns are born into pressured yet treasured position; they fear failure and refrain, most of the time, from where they cannot excel or make it. Uba (1989) and Becker (1981) corroborate the above statement by noting that the oldest child is usually advantaged by a good deal of attention and warmth during the early stage of life. More attention and time are usually accorded them (the first borns); this may lead them to doing well in their academic endeavours.

The middle child is influenced by the elder child, the second or the middle child usually imitate the first born and he is likely to be what the first born is. Goose (2002) however noted that second and middle born differs greatly from the first born in personality interest and achievement. Iacovou (2001) noted that, middle or youngest child performs better than other siblings. The only children, Goose (2002) noted, are achievement oriented and most likely to attain academic success. They may be creative, sometimes, like last borns, they may rely on services from others rather than put in their own efforts.

Tenibiaje (2002) and Spears (1982) agreed that there was significant difference in intelligence capacity between the first borns and latter borns and that latter born children were less capable than earlier siblings. These posits are indications of birth order influence on academic achievement.

## **Purpose of the Study**

This study examined the influence and relationship between birth order and students' academic achievement. The study, it is believed would facilitate an early intervention in resolving the problems that may be identified.

## **Hypotheses**

The following null hypotheses were tested:

- i. There is no significant relationship between birth order and students' academic achievement.
- ii. There is no significant difference in the mean achievement of first borns and latter born students.

## **Population**

The population for the study was made up of all senior secondary school one (SS1) students in Lagos State public secondary schools.

A stratified random sampling technique was used to select the schools used for the study.

## **Sample**

The sample comprises 300 students randomly selected from six senior secondary schools in the State under study. Fifty students each were selected from each school for the study. They were made up of 156 first borns, 154 latter borns.

## **Research Instrument**

The main instrument used for this study, was Birth-Order Questionnaire (BOQ).

### **Birth-Order Questionnaire (BOQ)**

This is a ten-item questionnaire constructed by the researcher to elicit response on students' ordinal position in the family and the observable influences. The questionnaire has a response anchor ranging from Strongly Disagree (SD) – 1 to Strongly Agree (SA) – 4.

The Chrombach alpha was used to establish the reliability co-efficient of the instrument and the co-efficient was found to be 0.78. Some of the items of the questionnaire indicate the age, position in the family, parental involvement, etc.

The Junior School Certificate Examination result of the students that participated in the study was used to measure their academic achievement. The result was used bearing in mind the core subjects as indicated in the National Policy on Education (NPE, 2004).

## **Method of Data Analysis**

T-test statistics and Pearson Product Moment Correlation Coefficient were used to analyse the data. The t-test was used to determine the differences between the mean achievement of first borns and the

latter borns, while the Pearson product moment correlation was used to determine the relationship between birth order and students' academic achievement.

## Results and Discussions

### *Hypothesis One:*

The first hypothesis states that there is no significant relationship between birth order and students' academic achievement.

*Table 1: Relationship between Birth Order and Students' Academic Achievement*

<b>Variables</b>	<b>N</b>	<b>x</b>	<b>SD</b>	<b>r</b>	<b>r<sup>2</sup></b>	<b>Sig</b>
Birth Order	300	43.01	6.55	0.173	0.03	0.001
Academic Achievement	300	18.03	3.51			

The r-calculated (0.173) indicated that there exists a positive relationship between birth order and academic achievement. The r<sup>2</sup> value (0.03) attests to the fact that in every 170 cases, the relationship occurs in 3. The significant 0.001 is less than 0.05; this shows that the relationship is significant.

### *Hypothesis Two*

The second hypothesis states that there is no significant difference in the mean achievement of first borns (FBS) and latter borns (LBS) students.

*Table 2: Differences in the Mean Achievement of First Born and Latter Born Students*

<b>Variables</b>	<b>N</b>	<b>x</b>	<b>SD</b>	<b>r</b>	<b>r<sup>2</sup></b>	<b>Sig</b>
First Born Students (FBS)	146	20.32	3.51	298	6.85	0.01
Latter Born Students (LBS)	154	16.41	3.12			

The table indicates a calculated t(6.85) which is significant at 0.01 alpha level; is less than 0.05. The difference in the first born and the latter born achievement is significant. The mean value 20.32 and 16.41 for first borns and latter borns respectively also shows that first borns are better academically than their latter born counterparts.

## **Discussions**

The first hypothesis states that there is significant relationship between birth-order and academic performance. The result showed that there exist a relationship and indeed a significant relationship. This indicates that the position that a child occupies in the birth order will always influence the child's academic achievement. This supports the findings of Iacovou (2001) who stressed that middle or youngest child in a family of a given size performs better than other siblings and that ordinal position in the family affects academic performance. This finding also corroborate Groose (2002) who noted that the position of a child in his family is a powerful predictor of personality, and academic achievement. The finding however, disagrees with the findings of Tenibiaje (2009) whose finding revealed that birth order has no influence on academic performance. Parents will however, need to take adequate care, pay attention to all the children irrespective of their position in the family, so that the desired academic success can be realised.

The second hypothesis states that there is no significant difference in the mean achievement of first born and latter born students. The result shows a significant difference in the first born and latter born mean academic achievement. First borns perform better than the latter borns (First Borns:  $x = 20.32$ , Latter Borns:  $x = 16.41$ ). As observed by Uba (1989) and Becker (1981), the oldest child is usually advantaged by a good deal of attention and warmth during their early stage of life; more attention and time are accorded then and this may lead them to doing well in their academic endeavours.

This result also supports Tenibiaje (2002) and Spears (1982) who both agreed that there was significant difference in intelligence capacity between the first borns and latter borns and that, latter born children were less capable than earlier siblings. Parents and other stakeholders of education should be attentive and be warm to their children for good academic performance.

The implication of these findings is that birth order is highly essential in ensuring high academic achievement. Parents, therefore, should be counselled, through a broad-based programme, to show high commitment so that their children may excel in their studies.

## **Conclusion and Recommendations**

This study has established that there is a relationship between birth order and academic achievement and that there is a significant difference between the mean achievement of first borns and latter borns. Parents should set high and achievable goals for all the children and the children should be encouraged to strive hard to realise these goals. By this, they are all likely to perform well and the desired academic outcome be realised.

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