Influence of Birth-Order and Academic Performance of Middleborn, Lastborn and Only-Child Girl-Child in Primary Schools

Princewill Okechukwu Ejekwu
Department of Primary Education Studies
Ignatius Ajuru University of Education, Port Harcourt
Princeejekwu123@gmail.com

Abstract

This study examined the influence of Birth Order on the academic performance of middle born, lastborn and only-child girl-child in primary schools in Port Harcourt Local Government Area of Rivers State. Ex post facto survey research design was adopted for the study. Population of the study consisted of 2199 female primary five pupils in public primary schools. The sample size of the study was 1500 female primary five pupils. This was obtained using purposive sampling technique. The instruments for this study consisted of (a) the researcher-developed twenty two (22)-item check-list titled “Birth Order and Girl-Child Academic Performance Check-list” (BOGAPC), and (b) the raw scores of the last session (first, second and third terms) examination of the pupils on the core four subjects (English, Mathematics, Social studies and Primary Science). The instrument was validated by two specialists in the Departments of Early Childhood Education, and Educational Foundations, Guidance and Counseling in the Faculty of Education, University of Uyo. Cronbach alpha coefficient was used for the calculation of reliability index. Two research questions and two null hypotheses were formulated to guide the study. The hypotheses were tested using the one-way analysis of variance (ANOVA). The result of the study shows that there is a significant difference in the academic performance of the middle born and lastborn girl-child in primary schools in Port Harcourt Local Government Area of Rivers state. The results also showed that the effect of the performance of the middle born and only child differ significantly. Based on the findings of the study recommendations were made which include; that Government should employ guidance counselors with an appreciable knowledge of birth order phenomenon in primary schools. This is very necessary as they will be able to give proper academic guidance to the pupils and, so, to be able to help each child (their sib ship position notwithstanding) to excel academically.

Key Words: Birthorder, Middleborn, Lastborn, Onlychild

Introduction

Generally, parents are excited and anxious about their first child and hence, tend to be overly protective and pay more attention, investment, as well as expectation on this child. However, parents’ attention, investment, and expectation vary across children. As the second child arrives, in the family, the firstborn may experience dethronement and the same thing
happens to the second born once a third child arrives and so forth. Besides, experience shows that parental resources that a child received decreases as the sibship size grows bigger. Therefore, every child experiences different level of parental resources and investment as a result of their distinct birth order while these unique experiences will in turn shape their developmental course.

Birth order refers to the position or a person’s rank by age among his/her siblings. Birth order proponents state that a person’s position in the family does seem to affect his/her behaviour both at home and at school. Birth order has been shown to have an effect on educational motivation and achievement, even after dealing with variables such as social status (Marjoribanks, 2003). The order of a person’s birth has a lasting impact on personal development. Studies have indicated a strong relationship between birth order and perception of favoritism, where there is clearly a tendency for favoritism to be perceived from the opposite-sex parent.

Since the late 19th century, the investigation of the phenomena surrounding the ordinal position of birth has been termed “birth order” research. Groose (2000) noted that the position of a child in a 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 opinion of scholars on birth order and academic achievement has been contradictory. Conley and Glauber (2005) argued that additional children put a strain on the monetary and non-monetary resources of the family thereby hampering school achievement of the children. Since some of these resources cannot be accumulated (e.g. parental time), the amount available for each sibling depends on his/her position in the sibship and the spacing of children.

The middleborn children often report feeling inferior to older children because they do not possess their sibling’s advanced abilities. Sometimes they are very competitive with their firstborn sibling. Most middleborn choose to focus their energies in areas different from those in which their older sibling is already established. This competition with firstborns drive middleborns to innovation, doing something or being different from their older siblings in order to make themselves stand out in the family dynamic. They often are more competent at an earlier age than their older siblings because they have had their example to follow (Franz, 2006).
Lastborn children often have to use creative methods to carve out their place in a family where older siblings already occupy niches, such as the academic or the social butterfly. This creativity makes them more open to new and radical ideas. According to birth order expert Sulloway (2010), lastborn children were nine times as likely as firstborns to become martyrs during the protestant Reformation, which revolutionized the Christian religion. Only children do not have to compete with other kids for their parents’ attention, they can be very self-sufficient, but sometimes aloof. Groose (2003) further stated that, only children are often demanding perfectionists who have high expectations of themselves and this drives them to high academic achievement.

The education of the girl-child, in particular, contributes to various aspects of her life such as increased productivity, family health and nutrition, and reduced fertility rates. This presupposes that, her early formative years become significant as most of the instructions received would become guiding principles to the life ahead of her. Primary education for a girl-child has important individual benefits in terms of her options and resources over her lifetime. This is particularly true since the rest of the educational system is built upon the primary education. These benefits extend beyond the girl-child in affecting her family and society as a whole. The benefits of society in educating the girl-child include enhanced economic development, education for the next generation, healthier young girls and families, and fewer maternal deaths. In view of the foregoing, this study sought to examine the influence of birth order on the academic performance of the middleborn, lastborn and only-child girl-child in primary school in Port Harcourt Local Government Area of Rivers State, Nigeria.

**Statement of Problem**

Education of the girl-child is considered important; parents and the society at large should see girl-child education as important as that of the boys. This seems informed by the ethos of national development where everybody is supposed to contribute his/her own quota, therefore making everybody a participant in the nation building project. The girl-child generally plays more roles in the provision of essential domestic services to the family, particularly with respect to bringing up other siblings in their formative stages of life; and this seems to reflect in their academic performance. This is a problem that calls for investigation.
Poor academic performances among pupils have been attributed to attitudes of pupils to school, approach to learning, academic self-concept, parents’ social class and parents’ educational levels (Tenibiaje, 2009). In a related development, Mbilinyi (2003), identified socio-cultural attitudes, practices and school-related factors which include irrelevant school curriculum and materials, inadequately trained teachers, unfriendly approaches in training and lack of role models as factors that constitute obstacles to academic performance of girls. It is in the light of the above discourse that the researcher became interested in finding out whether or not birth order has any influence on academic performance of the girl-child in primary school.

Purpose of the Study

Broadly stated, this study was designed to ascertain the influence of birth order on girl-child performance in primary school. Specifically, the study sought to:

1. Examine the influence of Middleborn and Last Born Girlchild on the Academic performance in Primary School in Port Harcourt Local Government Area of Rivers State.
2. Examine the influence of Middleborn and the only Girlchild on the academic performance in Primary School in Port Harcourt Local Government Area of Rivers State.

Null Hypotheses

The following hypotheses were formulated to further guide the study. They were tested at the 0.5 level of significance.

(1) Middleborn girls do not differ significantly in academic performance from lastborn girls in primary school.

(2) There is no significant difference in the academic performance of the Middleborn and the onlychild girl-child in primary school.

Methodology
The design adopted for this study was ex post facto research design. The researcher employed this research design because he was interested in finding out the influence of birth order on the girl-child academic performance in primary school in Port Harcourt local government Area. According to Ajoku (2006), in this design the researcher has no control over the variables of interest and cannot manipulate them.

The population of this study consisted of the 3,212 primary five female pupils from the forty-nine public primary schools in Port Harcourt Local Government Area (Rivers State Ministry of Education, 2015). The researcher did not involve any pupil from polygamous families and children born in multiple births (e.g. twins, triplets, etc), since they have some extraneous variables which the researcher cannot control (such as multiple firstborns and lastborns). The researcher therefore, made use of subjects who are from monogamous families. The researcher was able to draw out pupils from monogamous families through the research-prepared check-list. The entire 1500 primary five pupils were used for the study, using convenience sampling technique. The sample therefore consisted of primary five pupils between the ages of 8-10years who are from monogamous families. This included firstborn, middleborn, lastborn and onlychild.

The researcher-developed, two instruments for the study, the first instrument was A-22 item check-list titled "Birth Order and Girl-Child Academic Performance Check-list" (BOGAPC), to elicit information from the subjects on data of the students. This included name, name of school, age, position in the family and family size, the number of girls in the family, the number of boys in the family, gender of immediate younger sibling, gender of immediate older sibling, age difference with the younger sibling and age difference with the older sibling, their family type, whom they are staying with. The second instrument was the raw scores of the last session (first, second and third terms) examination of the pupils on the core four subjects (English, Mathematics, Social studies and Primary Science) which was collected from the school authorities to aid the study.

The instrument was validated by three specialists in the Departments of Early Childhood Education, and Educational Foundations, Guidance and Counselling in the Faculty of Education, University of Uyo for content validity. Test-retest method was used to establish reliability coefficient of the instrument. The instrument was administered on 320 primary five female pupils in Obioakpor Local Government Area, which is outside the
population of the study who are from monogamous families, since they will not be part of the sample for the study. Cronbach alpha coefficient was used for the calculation of reliability index. This revealed the reliability coefficient of the instrument as being 0.85 for English, 0.83 for mathematics, 0.81 for basic science, 0.83 for social studies. With this level of reliability coefficient, the instrument was considered to be highly reliable for this study.

**Statistical Analysis of Data**

For the statistical analysis of data in this study, the one way Analysis of Variance (ANOVA) was employed. This was used to test the hypotheses at .05 level of significance.

**FINDINGS**

**Null Hypothesis 1:** *Middle born girls do not differ significantly in academic performance from lastborn girls in primary school.*

Analysis of data in respect of hypothesis 1 above is done using the analysis of variance (ANOVA) statistics. The summary of computation is presented using Table 1.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F_{cal}</th>
<th>F_{crit}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between group</td>
<td>1389.65</td>
<td>3</td>
<td>463.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within group</td>
<td>17283.74</td>
<td>915</td>
<td>18.91</td>
<td>24.50*</td>
<td>2.80</td>
</tr>
<tr>
<td>Total</td>
<td>18673.39</td>
<td>918</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N=918 (middleborn and lastborn only) * significant P<.05

The Table 1 presents the analysis of variance of difference in the academic performance of middleborn and lastborn girls in primary school. Given that the calculated f-value of 24.50 is greater than the f-critical of 2.80 at a df of 3 and 914 and at .05 level of significance, the null hypothesis that “middleborn girls do not differ significantly in academic performance from lastborn girls in primary school” is rejected. Therefore, middleborn girls differ significantly in academic performance from lastborn girls in primary school.

**Hypothesis 2:** *There is no significant difference in the academic performance of the middle born and the ‘only child’ girl-child in primary school.*

Analysis of data in respect of hypothesis 2 was done using the analysis of variance (ANOVA) statistics. The summary of computation is presented on Table 2.
Table 2: Analysis of variance of difference in performance of middleborn and onlychild girl-child.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F_cal</th>
<th>F_crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between group</td>
<td>1216.43</td>
<td>3</td>
<td>405.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within group</td>
<td>15640.80</td>
<td>735</td>
<td>21.28</td>
<td>19.05*</td>
<td>2.80</td>
</tr>
<tr>
<td>Total</td>
<td>16857.23</td>
<td>738</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 738 (middleborn and onlychild only)  
*significant P<.05

From the analysis of data in respect of hypothesis 2 in Table 2, given that at 3 and 738 degree of freedom (df) and at .05 level of significance, with the f-calculated of 19.05 greater than f-critical of 2.80, the null hypothesis of “no significant difference in the academic performance of middleborn and the ‘onlychild’ girl-child in primary school” is therefore rejected. Therefore, there is a significant difference in the academic performance of the middleborn and the ‘onlychild’ girl-child in primary school.

**Discussion of the Findings**

The result of the data analysis in respect of hypothesis 1 (Table 1) indicated that with the calculated F-value of 24.50 at .05 level of significance and at 3 and 914 degree of freedom, being even much higher than the table value of 2.80, the null hypothesis was thereby rejected. As a result, the inevitable conclusion is that the academic performance of middleborn girls and lastborn girls in primary schools in Port Harcourt Local Government Area of Rivers state differ significantly. This implies that lastborn girl-child performs better than the middleborn.

This finding is at variance with and indeed makes a departure from the view of Edun (2011) who earlier reported that no significant difference existed in the academic performance of the two birth order positions of primary school pupils. This departure from the view of Edun (2011) could be as a result of the attention and resources which the parents shower on the lastborn child and also, considering the fact that the lastborn child also has a lot of surrogate parents (the older siblings) to learn from.

The result in respect of hypothesis 2 (Table 2) shows that with the calculated f-value of 19.05 being higher than the table value of 2.80 at .05 level of significance with 3 and 738 degree of freedom, this is indicative that there is a significant difference in the academic performance of the middleborn and the ‘onlychild’ girl-child in primary schools in Port...
Harcourt Local Government Area of Rivers state. In view of this therefore, the null hypothesis is rejected.

This is so because it is at variance with the findings of Edun and Oguntola (2011) who reported that there exists no significant difference in the academic performance of middleborns and onlychild. In collaborating this view, Buchmann (2000) stressed that there is no effect of sibship size on children’s enrollment and achievement. This could be attributed to the fact that Onlychildren are often demanding perfectionists who have high expectations of themselves which ultimately drives them to high academic achievement.

Conclusion

Based on the findings and the discussions made, the study showed that pupils’ birth order in their individual families affect their academic performance. Also, lastborn child perform better than middleborn, while Onlychild tend to perform highly academically because of the constant adult-world contact and exposure.

Recommendations

Consequent on the findings of the study and the conclusions drawn there from, the researcher recommends as follows:

1. State Governments should employ guidance counsellors with an appreciable knowledge of birth order phenomenon in primary schools. This is very necessary as they will be able to give proper academic guidance to the pupils and, so, to be able to help each child (their sibship position not withstanding) to excel academically.

2. Parents should create opportunities for one-on-one time chat with each child, as well as two-on-one time chat opportunity (where both parents are together focusing on one child) for some identified period of time. Middle children, in particular, need time where they have full access to the individual attention of their parents.


