

A study of the impact of birth order on academic performance as perceived by Guidance and Counselling students of Taraba State University, Jalingo, Nigeria

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Received 16th February, 2022; Accepted 26th February, 2022

ABSTRACT: The study examined the impact of birth order on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Nigeria. The descriptive survey design was used for the study. From a population of 382 Guidance and Counselling students (2020/2021 academic session) in Taraba State University Jalingo, a sample of 101 students comprising of 47 male and 54 female was selected using purposive sampling technique. A reliability of 0.89 was obtained using Cronbach's Alpha. Mean and standard deviation were used for data analysis. Two research questions were framed and two hypotheses were formulated and tested. Questionnaire was used for data collection: Impact of Birth Order on Students' Academic Performance Questionnaire [IBOSAPQ]. The study found that birth order has impact on academic performance of student. The study concludes that first, middle and last birth orders have impact on students' academic performance while gender is a predictor of birth order on academic performance as perceived by Guidance and Counselling students. The study recommends that counsellors and teachers should pay attention to students' birth order in order to provide for adequate counselling of parents and students as this will equip them with issues relating to birth order and measures to be taken to improve on students' academic performance generally.

Keywords: Academic performance; birth order, gender, impact.

INTRODUCTION

Generally, it appears newlywed parents are excited and anticipative about the prospect of giving birth to their first child irrespective of gender. Hence, they tend to be emotionally prepared, overly protective and pay more attention, investment, as well as have high expectations on this child. However, parents' attention, investment, and expectation differ between the second birth to the last child in the family. As the second child arrives into the family, the firstborn may experience dethronement and the same happens to the second child once a third child is born and so on.

Besides, Tshui and Cai (2011) suggested that parental resources (money, material, attention, care, love) that a

child gets decrease as the family 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 progress.

Therefore, it could be said that, birth order is the chronological position occupied by each child in a family and can further be categorized into: First birth order, middle birth order and last birth order. The first birth order is the first born child of the family, the middle birth order are children born between the second position down to next to last born child in the same family while the last birth order is the last child of the family. For example, a family

with four children, will have the first born child as its first birth order, the second and third born are the middle birth order while the last child is the last birth order in that family. Additionally, there are children born without siblings in some families, they are called only child.

Historically, first born siblings have outperformed their sibling counterparts on achievement testing. These achievement differences, as well as other personality traits, have been found to differ among birth orders well into adulthood (Leman, 2009; Sulloway, 1999). Tshui and Cai (2011) states that each birth position has a set of personality traits. Firstborns are always seen as natural heirs, leaders, high-achievers, ambitious, and compliant. They attempt to please their parents via traditional ways, which are through academic performance, achievement and responsible behaviours (they are mostly domesticated). Middle children, on the other hand, may experience difficulty finding a position of privilege and significance in the family because they never have the opportunity to monopolize parents' attention who already have a mindset based on the activities of the firstborns. Consequently, they constantly fight to stay ahead of their younger siblings. In divergence, lastborn and only children are frequently viewed as the spoiled kid of the family. It is because both of these birth positions are the only focus of the family. However, unlike the only children, the later-born children, including the middle children and last-born children, are aware of the higher status of the firstborn, so they will seek alternative strategies to stand out from their siblings in order to compete with the first born in order to impress and show they also achievers and can perform academically in order to gain parental attention and favour as the first child.

According to Jabor et al. (2011), measuring performance is a significant part of the education process and informs educators of student ability and progress toward educational goals. It is also the primary gauge used by educators to guide the advancement of students through the education process. Their purpose is to indicate how effectively educational programs are meeting their goals for student learning. In educational institutions, success is measured by academic performances, or how well a student meets standards set out by the institution itself therefore academic performance is designated by test and examination scores or marks assigned by the subject teachers. It could also be any expression used to represent student's scholastic standing (Adediwura and Tayo, 2007).

Nevertheless Egunsola and Isani (2014) opined that, over a period of time, it has been observed that students exposed to the same lessons by the same teachers perform differently when they are evaluated. This shows that outside the school environment, other factors influence student academic performance. In addition, differences in the academic performances of gifted and non-gifted children cannot be traced to school environment. Hence, many other uncontrolled variables

can be responsible for academic performance of students generally. Parental variables are not exceptions to these factors responsible for academic performance among students in educational institutions of learning. It is against such this study investigated the impact of birth order on academic performance as perceived Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria.

Many research works have shown that students' academic performance can be affected by many factors including parental support, environment, school attendance, poor study habits and poor academic activities. After suggesting strategies to solve this problems, many students' academics have not improved significantly and that suggest that there could be other problems that have bearing on academic performance among students. Similarly, Tshui and Cai (2011) opined that parent incomes, material, attention, care and love that a child gets decrease as the family 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 progress.

The researchers would want to consider whether birth order could be a factor. Thus, the study is focused on the impact of birth order on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria. Specifically, the study:

1. Determined the impact of first, middle and last birth order on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria.
2. Determined the impact of birth order on academic performance base on gender as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria.

Research questions

1. What is the impact of first, middle and last birth order on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria?
2. What is the impact of birth order on academic performance base on gender as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria?

Research hypotheses

The following null hypotheses were postulated and tested at 0.05 level of significance:

H₀₁: Birth order (first, middle and last) has no significant impact on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria.

H₀₂: Gender has no significant impact on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria.

MATERIALS AND METHODS

The design for this study is survey. The population of this study consist of all 382 undergraduate students from the Department of Guidance and Counselling, Taraba State University Jalingo, 2020/2021 academic session. A total of 101 (400 Level) students were selected as sample size for the study using non probability purposive sampling technique in selection of undergraduate students from the department including male and female students. The researchers developed instruments for data collection for the study titled: Impact of Birth Order on Students' Academic Performance Questionnaire [IBOSAPQ]. The instrument consists of section A and B. section A required the respondent to give their bio-data information while section B elicited information from respondents on items in line with the research questions. The instrument was pilot tested on forty (20) male and female students of the population who are not part of the sampled respondents. This is to determine the reliability of the instruments. Cronbach Alpha co-coefficient was used to estimate internal consistency of the instrument. The reliability index of 0.897 was obtained. This result shows that the instrument is reliable. Chi square and Independent t-test were the statistical technique used to predict the outcome of the dependent variable

RESULTS

Research question one: What is the impact of First, Middle and Last birth order on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria?

Table 1 reveals means and standard deviation ratings of responses on the impact of birth order on Guidance and Counselling students' academic performance. All the items except item 8 have mean rating scales in the region of 2.50 to 4.00; this shows that respondents agreed that birth order has impact on students' academic performance. The cluster has a grand mean of 3.22 and a standard deviation of 0.93; this implies that first, middle and last birth orders have impact on students' academic performance.

Research question two: What is the influence of gender on the impact of birth order on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria?

Table 2 shows the mean and standard deviation ratings of the influence of gender on the impact of birth order on academic performance as perceived by Guidance and Counselling students. Male students have mean 2.45 and standard deviation 0.88; this shows that gender has no influence on the impact of birth order on academic performance as perceived by male Guidance and Counselling students. Similarly, female students have mean of 2.33 and standard deviation 0.88; this shows that gender has no influence on the impact of birth order on academic performance as perceived by female Guidance and Counselling students.

Hypothesis H₀₁: Birth order (first, middle and last) has no significant impact on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria

Table 3 presents Chi-square test of significant impact of birth order on academic performance as perceived by Guidance and Counselling students ($\chi^2 = 115.433$, $df = 90$, $p = .037$). The result shows that there is significant impact of birth order on academic performance as perceived by Guidance and Counselling students. Thus, the null hypothesis which says birth order (first, middle and last) has no significant impact on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria is rejected. This implies that birth order (first, middle and last) has significant impact on students' academic performance.

Hypothesis H₀₂: Gender difference has no significant influence on the impact of birth order on students' academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria

Result of independent-samples t-test in Table 4 shows that gender difference has no significant influence on the impact of birth order on students' academic performance as perceived by Guidance and Counselling students ($t = 1.384$, $df = 99$, $p = 0.169$). Thus, the null hypothesis that states that gender difference has no significant influence on the impact of birth order on students' academic performance as perceived by Guidance and Counselling students' academic performance is hereby retained.

Table 1. Means and standard deviation ratings of responses on the impact of birth order on Guidance and Counselling students' academic performance.

S/N	Impact of Birth Order on Academic Performance	Mean	SD	Decision
1.	First birth order outclasses middle and last birth order academically due to family size	3.38	0.83	Agree
2.	First and middle birth order perform better than last birth order because family type has been of advantage to them	3.38	0.81	Agree
3.	Last birth order performs better academically because they are given more priority by parents	2.89	0.94	Agree
4.	Parents provide educational materials to enhance academic performance of first birth order more than middle and last birth order	3.22	0.94	Agree
5.	Financial status of the family is a predictor to good academic performance for first, middle and last birth order	3.59	0.74	Agree
6.	First birth order performs better academically because they attend the best schools	3.52	0.81	Agree
7.	Middle birth order performs better academically because they are naturally brilliant in spite of attending public or average schools	2.88	0.98	Agree
8.	Last birth order is perceived the dullest hence they perform poorly academically	2.44	1.39	Disagree
9.	If given equal priority, all birth order will perform well academically	3.49	0.94	Agree
10.	First and last birth order perform better because the family concentration is on them	3.41	0.92	Agree
	Grand Mean/Standard Deviation	3.22	0.93	Agree

Table 2. Summary of analysis showing the influence of gender on the impact of birth order on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, Taraba State, Nigeria.

Item	Statement	Male			Female		
		Mean	Std dev	Decision	Mean	Std dev	Decision
11.	A male middle birth order performs better than a female first birth order due to gender priority given by parents	3.13	1.06	Agree	2.85	1.00	Agree
12.	A male last birth order performs better than a female first and middle birth order due to gender discrimination by parents	2.94	0.94	Agree	2.63	0.92	Agree
13.	A male first birth order performs better than female middle and last birth order irrespective of priority given by parents	2.68	1.12	Agree	2.57	0.88	Agree
14.	Parents provide educational materials to enhance academic performance of the only male child notwithstanding his birth order because he is naturally considered the heir	3.32	0.93	Agree	2.91	1.03	Agree
15.	Naturally, female child performs better than male child academically	2.72	1.04	Agree	2.69	1.02	Agree
16.	Naturally, male child performs better than female child academically	2.19	0.82	Disagree	2.17	0.82	Disagree
17.	Poor academic performance is associated to male child only	2.11	0.76	Disagree	2.15	0.79	Disagree
18.	Poor academic performance is associated to female child only	1.96	0.69	Disagree	2.04	0.87	Disagree
19.	The female child performs poorly because she is meant to believe she can't surpass the male child academically	1.77	0.73	Disagree	1.70	0.79	Disagree
20.	The male child performs poorly academically because he has more leisure than his female sibling	1.68	0.66	Disagree	1.61	0.71	Disagree
	Grand Mean/Standard Deviation	2.45	0.88	Disagree	2.33	0.88	Disagree

Table 3. Chi-square test of significant impact of birth order on students' academic performance.

	Value	Df	Asymptotic significance (2-sided)
Pearson Chi-Square	115.433	90	0.037
Likelihood Ratio	106.117	90	0.118
Linear-by-Linear Association	7.789	1	0.005
N of Valid Cases	101		

Table 4. Independent-Samples t-test of Gender Difference on the Impact of Birth Order on Students' Academic Performance.

Gender	N	Mean	Std. Dev.	Std. Error Mean	T	df	Sig. (2-tailed)
Male	47	2.45	0.36	0.054	1.384	99	0.169
Female	54	2.33	0.47	0.064			

DISCUSSION

The researchers found that there is moderately strong positive and significant impact of first, middle and last birth order on academic performance as perceived by Guidance and Counselling students, Taraba State University Jalingo, which implies that birth order is a predictor on students' academic performance. The influence of birth order could mean that parents have inadequate awareness of how family size, family type, social status, family financial status, provision of educational materials and family care could influence the academic performance of their children. This view is supported by Tshui and Cai (2011) who state that parental resources (money, material, attention, care and love) that a child gets decrease as the family size grows bigger. It means that 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 progress. Item 5 on table 1 of this study is buoyed by the study of Tanskanen et al. (2016), which showed that parental income has positive impact on academic performance of a student. Similarly, the study is in agreement with Egunsola and Isani (2014) who revealed that, many other uncontrolled variables could be responsible for academic performance of students generally which parental variables are not exceptions to these factors responsible for academic performance among students in educational institutions of learning.

Item 7 of this study obtained a mean value of 2.88 compared to 4.31 carried out by Albarkheel et al. (2019) who found that middle birth order performs better than first and last birth order academically. The United States of America Statistics portal (2016). Family size is another huge factor that has impacted on students' academic performance. This is evident in item 1 in table 1. A 3.38 mean value was obtained to indicate that the size of a family could have an impact on academic performance.

This is also supported by the studies of Tanskanen et al. (2016) and Cai and Wu (2019), Finally, Albarkheel et al (2019) study found that males in Riyadh Dental College had showed the highest tendency to have better academic performance with a score of 55% while their female counterparts did not show the same tendency scoring 45%. In comparison to this study, the study is in agreement with Albarkheel et al (2019) as seen in table 4 with the males having a mean score of 2.45 while female students have 2.33 mean value.

Conclusion

From the study, it suffices to conclude that birth order has impact on academic performance of students. The study shows that first, middle and last birth orders have impact on students' academic performance. The study further revealed that parents provide educational materials to enhance academic performance of the only male child notwithstanding his birth order because he is naturally considered the heir. Finally, the study conclude that gender does not determine academic performance as perceived by Guidance and Counselling students in Taraba State University, Jalingo.

Recommendations

The researchers discovered that the first, middle and last birth orders have a moderately strong favourable and substantial impact on Guidance and Counselling students' academic performance. Parents may be unaware of how family size, family type, social standing, family financial status, educational materials provided and family care affect their children's academic success. Therefore, the following recommendations are made:

1. That counsellors and teachers should pay attention to students' birth order in order to provide for adequate counselling of parents and students as this will equip them with issues relating to birth order and measures to be taken to improve on students' academic performance generally.
2. Counselling against gender difference be given consideration especially in order to help female children improve their academic performance like their male counterparts.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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