

Parents' Influence, Career Views and Choice of Institution as Correlates on Students' Choice of Science Education Career in Some Rivers State Tertiary Institutions

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Abstract

The study sought to investigate Parents' influence, Career views and Choice of institution correlates on students' choice of science education in Rivers State tertiary institutions in Nigeria.

The survey type of research method was adopted. Disproportionate stratified sampling technique was used to select six departments in 2010/2011 academic session in faculty of science in three tertiary institutions Rivers State. These are Ignatius Ajuru University of Education, Rivers State University of Science and Technology, and University of Port Harcourt. A representative group of 28 boys and girls from both 200 and 300 levels each from these institutions were selected to ensure equitable representation. The instrument, Science Education Career Choice Questionnaire (SECCQ) was used to collect data and was face and content validated by experts in science education. The reliability coefficient was determined using Cronbach's Alpha 0.0786 for parental influence, 0.857 for career views and 0.974 for Choice of University influence. Data collected were analysed using descriptive statistics such as frequency, percentages, t- test as well as multiple regression analysis. The result shows that parents play an important role in the course of study. Career choice and institution attended by their children.

Introduction

Science education is the field concerned with sharing science content and process with individual not traditionally considered part of the scientific community. The target individuals may be children, college students or adults within the general public. The field of science education comprises science content, some social sciences and some teaching pedagogy. The standard for science education provides expectations for the development of understanding for students through the entire course.

The Federal Government of Nigeria (2004) emphasizes that science education shall be the teaching and learning of science process and principles. This will lead to fundamental and applied research in the sciences at all levels of education. Despite the government effort to popularize the study of the sciences and the production of adequate number of scientists to inspire and support national development, parents dictate the career choice of their children because they wanted them (children) to study the parent's desired course not minding the ability of that child.

Generally, parents' career aspirations and children in selecting occupational goals influence their knowledge of occupations and familiarize them with occupational roles and requirements. Whether the child internalizes those aspirations is greatly determined by numerous values found within the home (Hairston, 2000). The occupational orientation of parents familiarizes children with occupational roles, while the value orientation of parents, provides the learning environment that motivates the aspirations of children (Lee, 1984). Okeke (1996), also studied the relationship between parental occupations and their children's occupational preferences, and found that 60% of the children were willing to take after their father's occupation while 23% were willing to follow their mother's occupation. The situation owes its origin to early childhood when the child grabs his parent's attitude towards different vocations. A conflict therefore occurs when the child submits to his parent's choice while at the same time deeply resenting his submissions as he becomes aware of his loss of independence and finds his area of interest.

Career selection is one of many important choices students make in determining future plans. Mbato and Ackermann (2003) identified career choice as one of the major areas of concern for young people nearing the end of their schooling. Every student, at one time or another, is faced with the challenge of making a choice of career. This, buttressed by Cicero, quoted by Hippock (1767) saying "we must decide what manner of men we wish to be and what calling in life we would follow and this is the most difficult problem in the world".

Little research has been done as to how and why people choose a particular university during the process of undergraduate tertiary application. Majority of students are motivated principally by field of study interests when they make their initial tertiary application (Harvey-Beavis and Elsworth, 1998). Ultimately, however, applicants must express these fields of study aspirations by choosing particular courses at particular institutions. A person's preferred tertiary course therefore represents a complex aggregate of his or her personal field of study interests, the perceived characteristics of the relevant courses in the intended university, and the wider qualities of that institution. It is quite difficult methodologically to isolate and estimate the relative of these

tightly enmeshed factors. Mabrouk and Peters (2000) also surveyed 320 undergraduate research students in biology and chemistry. They found that 98% of the respondents viewed undergraduate research favourably enough to recommend the experience to a friend. Russel and peter (2007) surveyed approximately 4500 students, and found that 68% of the respondents reported an increased interest in science career and 83% reported an increased in confidence of their research skills.

Akomolafe (2008) pointed out that the individual's career is one of the most important aspects of human endeavor because it determines a lot of things in human existence. It would neither make nor mar one's joy and happiness. He further contended that true joy, happiness and satisfaction are linked to proper choice of career. He also posited that emotional and marital stability could be enhanced by the type of occupation one engages in. In Nigeria, many youths make wrong career choices due to ignorance, inexperience, peer pressure, wrong modeling, advice from friends, parents and teachers, or as a result of the prestige attached to certain jobs without adequate vocational guidance and career counseling (Salami, 1999). Consequently many of them are unsuited for their careers, as they usually find themselves in jobs that do not satisfy their value needs. They are usually unable to contribute meaningfully to the society they ultimately become liabilities to the nation and society at large.

With competitive entry to courses largely based on academic results, people's decisions are significantly mediated by their academic achievements and their perceived capabilities. Perceptions of self and attainability are string influences in the choice of a field of study and a particular course within that field of study.

Statement of the Problem

Science education is a career that focuses on inventions and problem solving. It is the spring board for sustainable development and equally facilitates and enhances industrial and technological progress among the people and within the nation. As at today, the number of science education experts in Nigeria is still inadequate. This may be due to the fact that not many people choose science related discipline as a career choice and hence there is need to look into the background of the student in their career choice and see how their parents influence their decision to study science education. This study therefore seeks to investigate parents influence, career views and choice of institution as correlates on student's choice of science education.

Hypotheses

Three null hypotheses were formulated for this study.

- H₀₁:** There is no significant difference between the mean responses of boys and girls students on how parents influence their children's choice of science education career.
- H₀₂:** There is no significant relationship between parental influence and career views of students in science education.
- H₀₃:** There is no significant difference between the mean response of boys and girls in Rivers State Institutions on the factors that influence choice of institution.

Methodology

Descriptive Design was adopted

The target population of this study, comprised in faculty of science in Institutions within Rivers State, (Ignatius Ajuru University of Education, Rivers State University of Science and Technology and University of Port Harcourt). It involved Biology, Chemistry, Physics, Mathematics, Health Education and Integrated Science students.

The students in faculty in 2010/2011 academic session were stratified based on six departments (Biology, Chemistry, Physics, Mathematics, Health Education and Integrated Science) with study population of 56 each and 28 study samples respectively. From each department, 336 students were selected disproportionately with a study sample of 168 each from the tree tertiary institutions. Each school was stratified into two academic levels of 200 and 300 with a study population of 28 each and study sample of 14 respectively involving 28 Boys and Girls with study samples of 14 each to ensure uniformity.

From the study of One Thousand and Eight (1008), a total sample size of Five Hundred and Four (504) was drawn from the three institutions to ensure equitable representation and reduce bias. The instrument used in this study was "Science Education Career Choice Questionnaire (SECCQ)" constructed by the researcher. It was a two-point scale (Yes and No; High Extent and Low Extent), and a five point scale (Very Strong Influence (VS) =5; Strong Influence (SI) = 4; Weak Influence (WI) =3; Very Weak Influence (VW) = 2; No Influence at all (NI) =1). The instrument had sections A,B and C. section A solicited responses on general information; section B, on Personal data and section C of the questionnaire had 39 items which sought information on how Parents influence their children's choice of Science Education, Career Views of students in science education, and factors that influence choice of institution.

The instrument was face and content validated by experts in science education, measurement and evaluation and guidance and counseling unit. The 39 items yielded a Cronbach Alpha, reliability coefficient of 0.786 for Parental Influence, 0.857 for Career Views and 0.974 for Choice of University Influence, an indication for internal consistency validity.

Results and Discussion

H₀₁: There is no significant difference between the mean responses of boys and girls on how parents influence their children choice of science education career.

Table 1: Group Statistics Boys and Girls response on Parental Influence

Gender	N	Mean	Std. Deviation	Std. Error Mean
Parental Influence Boys	504	36.01	5.504	.245
Parental Influence Girls	503	35.97	5.017	.224

Table 1 shows that boys have (mean = 36.01, standard deviation = 5.504) and girls (mean = 35.97, standard deviation = 5.017) with mean difference of 0.036. Both contribute at t-value of 0.108. Hence, H₀₁ is retained. This implies that the null hypothesis which states, there is no significant difference between the mean response of boys and girls on how parents influence their children's choice of science education was not significant.

H₀₂: There is no significant relationship between parental influence and career views of students in science education.

Table 2a: Paired Sample between Parental Influence and Career Views

	N	Mean	Std. Deviation	Std. Error Mean
Pair 1 Career Views	1005	39.82	6.504	.191
Parental Influence	1005	36.00	5.268	.166

Table 2b: Paired Sample Correlations between Parental Influence and Career Views

	N	Correlation	Sig.
Pair 1 Career Views & Parental Influence	1005	.755	.000

This was subjected to Paired Sample t-test and from the results; Career Views has a mean of 39.82 with standard deviation of 6.054 while Parental Influence has a mean of 36.00 with a standard deviation of 5.268. The correlation is 0.755 at 0.05 significant level. Therefore it is significant. Hence, H₀₂ is rejected. This means that the more career views of the respondent, the lesser the parental influence.

H₀₃: There is no significant difference between the mean responses of boys and girls in some Rivers State Tertiary institutions on the factors that influence choice of institution.

Table 3: Group Statistics of Boys and Girls on the Factors that Influence Choice of Institution

Gender	N	Mean	Std. Deviation	Std. Error Mean
Parental Influence Boys	504	52.13	15.857	.706
Parental Influence Girls	504	51.79	15.582	.694

Table 3 shows that boys (mean = 52.13, standard deviation = 15.857) while girls has (mean = 51.79, standard deviation = 15.582). The mean difference, 0.337 contribute a t-value of 0.341 at 0.05 significant level. Hence, H₀₃ is retained. This implies that the difference between the mean responses of boys and girls science education students in Rivers State Tertiary Institutions on factors that influence choice of institution was not significant.

Discussion

Several young people reported being influenced to engage with science education as a result of their parent's personal perspective, that is, motivations intrinsic to them as individuals, such as interest.

From the statistical analyses of hypothesis 1, the result reveals that the significant difference in the mean response of boys and girls (students) on how parents influence their choice of science education career was not significant. This means that boys are not influenced more than girls in terms of how parents influence their choice of science education career. This result corroborated with Otto (1989) that parents are the major influence in the lives of their children. Also, Wilson and Wilson (1992) found that college students and young adults cite parents as important influence on their career choice.

The second hypothesis revealed in table 4.1 is the response of students on the extent in which parents influence their children's choice of science education. The study showed that 100% on item1 are positive that their parents influenced their choice of science education. This may be attributed to the fact that their parents would always have made sure that they do not lack any textbook or vital materials needed for their study. The result also showed that majority of the students (92%) would have seen their parents making much money in their various occupations and this would have greatly motivated them to study science education. This is similar

to Lee (1984) which asserts that occupational orientation parents familiarize children with occupational roles, evidence from observation revealed that majority were girls. Furthermore, the study shows that most respondents' parents (57%) see science education as a career for the intelligent. This therefore, could have prompted their early exposure to scientific knowledge by their parents and in like manner, improved their creative thinking which could have earned them to pass all their science subjects since senior secondary school one (SS1) class. The encouragement provided towards having access to recent technology based activity most especially on the internet could have been their primary basis.

The statistical results revealed a high number of percentages ranging from 53.4% to 92.3%. This shows that the student's views towards science were mostly cited as important influence in career choice. This is in consonance with Onyejiaku (1987) who discovered that career molds one's character, determines one's social status, income, style of life, choice of friends and mental and physical health. Career views of students in science education as judged 'interesting' by majority of students (both boys and girls) and regarded as 'important' and 'relevant' as a course that everybody should learn. This finding also agrees with Owie's (2003) view that the most reason why a person chooses a particular career is that the person has intrinsic interest in the field. Where the intrinsic interest is lacking, no amount of training motivation or gratification would significantly increase the person's professional effectiveness.

On Hypothesis 3, the science education students show a predictably distinction profile, in giving greater emphasis to the research reputation, international character of 'the university including the opportunities for higher degree study, Canale and John (1996) affirms this by stating students are attracted to institutions that can provide: the m with a wide variety of academic majors which to choose. Finally, the institution's reputation had a direct effect on the decision to attend, but this reputation was relayed through the advice the students received from their friends (Smith & Matthews, 1990).

Conclusion

Based on the outcome of this study, the motivational roles of parents could be seen as a cogent step in encouraging their children, to studying science education Furthermore, it is also evident that parents have an influence on the career choice of students. Finally it is clear that when deciding on an institution to attend, parents and students want to ensure their success by attending a university with good academic reputation.

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