



A STATISTICAL ANALYSIS ON STUDENTS ACADEMIC PERFORMANCE AND VOCATIONAL CHOICES WITH RELATION TO SEX AMONG SENIOR SECONDARY SCHOOLS IN BAUCHI METROPOLIS

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Abstract

This study examined the effects of academic and vocational preferences among genders in senior secondary school especially the graduating class students in Bauchi metropolis. Two stage sampling method were conducted, the first stage was the simple random sampling which was used in selecting five mixed secondary schools, and for the second stage the stratified sampling method was used in selecting the sample from the selected schools. A total of 430 students constituting 215 boys and 215 girls were considered for the study. Chi-square test of independence was used to carry out the analysis. Result shows that at 5% level of significance, student aspiration after graduating from secondary school is dependent of gender. It is therefore concluded that student's academic choice after secondary school is dependent of gender. Also, student's employment choice after secondary school is dependent of gender.

Keyword: *Sex, vocational, employment, aspiration, academic performance, sampling.*

Introduction

Gender is a commonly used word in our society today and is define as the state male or female, of which they have their characteristics which is used in differentiating them. Eisha verma, Dr. Ritu Bakshi (2017) asserts that,

Gender has a great effect on the characteristics which is used in differentiating them between male and female. Gender has a greater effect when it comes to making career choice, career preference, career experience, occupational health. Work attitudes, other peoples thought and output. Eyo, MB. Edet, P.B(2011) asserts that career choice is one of the of the most important decision which every living being makes a times in their life time, being it a male or female. That nobody should make a mistake in making such a decision in choosing a career choice because what someone chooses doing for a living, it will affect him or her in the present and in the future probability for his/her entire life.

Choosing a better career is one of the most crucial or keen decision which a male or female makes Denger, D.I (2001) in Eyo, M.B. Edet, P.B (2011). It observed that most difficult situations youths are facing today is choosing the right and occupation, working towards it, loving it and also maintaining or keeping it. According to Maaik van der vleuten et al., (2016) in (Charsle and Bradley 2009; Pinxten et al. 2012; Vanlangen, Rehers- mombary,I and Dekkers 2006,2008) asserts that, choices in education differs mainly in early stage of adolescence, with the males which are more likely to pick mathematics and science related subjects and the females ten to pick non science subjects.

To explain gender education preferences, studies have pay attention mainly on male and female differences in ability, with males which are more better in spartial or non verbal activities and mathematics and females at hand writing and verbal reasoning (Maaikke vander vleuten et al, 2016). Ability is a powerful determinant factor that makes adolescents choose. According to research by (Ma'aik vander vleuten et al, 2016) in Ceci & Willians 2011; Hyde & Mertz 2009; Riegle - crum et al 2012) shows that ability does not completely explain how males and females decides their choices I terms of education. According to David lunbinski et al, (1995) in (Cf. benbow and Lubinski, 1996,1997; Holling worth, 1927; Paterson, 1957; Pressey, 1946; Stanley 1977; Terman 1925) interlectual giftedness has been seen throughout the 20th century as important for facilitating optimal upbringing of talents. Interlectual abilities such as (verbal, apartial,quantitative) among gifted adolescents has been exhibited

to be seen as predictive factors for frequent educational and vocational choices (Lubinski et al, 1996) in (Humphreys, Lubinski & Yao, 1993). The assessment of preferences in educational and vocational counseling has an outstanding history with population are matured, producing constant relationship with vocational and educational choice, satisfaction and perseverance (John A. acher et al, 1999) in (Orgen, 1999; Dawis, 1991,1992; Hackett & Lent,1992). In addition, the reason why gender influences academic and vocational remain unclear this study aim to broaden our understanding on how sex on a different way may affect academic and vocational choices of male and female students of senior secondary schools.

Previous research has mainly focused on using the simple percentage method in assessing the percentage of male and female students' preferences of the sub questions under the three main variables (questions). For the first variables question, aspirations after graduating from secondary schools, the percentage of male and female students for each sub questions under it like higher education and employment were compared, and also for the variable question academic choice, the percentage of male and female students for each sub question under it like university, polytechnic, college of education for were also compared for each, and finally, for the variable question employment choice, the percentage of male and female students for each sub question under it were also compare like self employment, civil service, teaching, and private sector. This present study in addition use chi-square test of independence to generally evaluate the influence of gender on each of the three main variable questions which are aspirations of students after graduating from secondary schools, academic choice, and employment choice. Disregarding the sub questions.

These studies addressed students from the senior secondary school mainly the graduating class (SS3 students) in Bauchi metropolis. According to Cordellia Nwagwu (1998), the graduating students in the senior secondary schools were consider as the most appropriate sample. This is because, they have to make vital conclusion of their lives whether to forge ahead with their academic into higher institution or to go into the society to look

for employment or become self employed after secondary school. Whether their preferences after secondary school is higher education or labour market at the end of the day, they had to make their individual choices.

Students Academic and Vocational Preferences

In third world country like Nigeria, it can be debated that the main purpose of secondary education is to prepare the majority of youth for the labor market and among all few for higher education Cordellia Nwagwu (1998). National policy on education had move close to 100 percent of the students moving from primary schools to junior secondary schools, during the mid 1980s and about 70 - 80 percent of the students move from junior secondary schools to senior secondary schools. That the percentage that moves from primary to secondary school was much lower while those students that continue from junior to senior secondary schools was on the increase than the forecast made by policy makers. However, that chances for higher education were not much while getting a job in the present sector of the economy is tedious to get Nwagwu (1989) in Cordellia Nwagwu (1998).

The career preferences happens in the entire life cycle as people makes number of decision that contains occupational implications Shelly J. Correll (2001) furthermore the processes by which persons select their occupations has pay attention on later stages primarily when persons actually select to do a particular jobs rather than moving into activities at early beginning on the paths leading to specific occupation as

Farmer and Boln (1984) in Eyo, M.B and Edet, P.B (2011) explain that in their study that two major factors such as early socialization and self efficiency has been considered influences promoting gender differences in occupational choices. Eyo, M.B and Edet, P.B (2011) in their study gender and occupational preferences among senior secondary school students, they came up with the findings which show that gender has significant influence on occupational preference among counseled and uncounseled students.

Vella (1993) in Eyo, M.B and Edet, P.B (2011). He observed the importance of occupational prefences based on the level of wages and investigated

determinant of occupational preferences. The results supports the findings made earlier that the change in wages occurs as a result of demand discrimination within occupations. He concluded that, between the two sex if female has a less traditional behavior towards their roles in the job market, the will produce an occupational distribution that will bring about higher wages.

Flabbia and Luca (2011) In their study made the following conclusions that, females attain a little of higher education that their male counterpart. These are of important differences in the choice of area of study by sex: females are more of graduate in education, humanities, and health while males counterpart are more of graduates in the area of Engineering and Architecture. Grade obtain during graduations differs in wide range across area of specializations : male and females have the same performance in science and social sciences, while females do better in humanities and male in the area of health. More so in their findings they also concluded that gender is important determinants factor of area of study despite after controlling for detailed persons behaviors.

Objectives of The Study

The objectives of the study are as follows

1. To examine the difference in academic preferences among senior secondary school students especially the graduating class in relation to their gender
2. To examine the difference in vocational preferences among senior secondary school students especially the graduating class in relation to their gender
3. To examine the differences in the students aspirations after secondary school in relation to their gender.
4. To make appropriate recommendations on the basis of findings of the research.

Hypothesis

Based on the stated objectives of the research, the following hypothesis were made.

H_0 !: Students aspirations after secondary school is independent of gender

H_1 !: Students aspirations after secondary school is dependent on gender

H₀^{II}: Students academic choice after secondary school is independent of gender

H₁^{II}: Students academic choice after secondary school is dependent on gender

H₀^{III}: Students employment choice after secondary school is independent of gender

H₁^{III}: Students employment choice after secondary school is dependent of gender

Delimitation of the Study

This study is said to be restricted to the following areas:

1. This study was restricted to mixed senior secondary school especially the graduating class i.e SS3 students
2. The study was restricted to sample of 430 students only
3. This study was restricted to the used of variables like academic preference and vocational preference

Population and Sample

The population of the current research was the students of five mixed secondary school especially the graduating class i.e. SS3 students. In current study, sample of 430 students from the five mixed senior secondary school were randomly collected

Study Design

In the current study a simple random sampling was used in choosing the five mixed secondary school, followed by a stratified sampling which was employed in choosing the samples. And then finally a survey method was used, for the survey a self made questionnaire was employed for academic preferences, vocational preferences and students aspirations after graduating from secondary school.

Statistical Technique Used

For the current study chi-square test of independent was used in the analysis and interpretation of the data

Data Analysis and Results

The sampled population was segregated into homogenous groups. One comprising of male students and the other group comprising of females students. The response of each group were obtain.

However, the frequencies obtained form the basis for the chi square analysis test for the stated hypothesis under consideration.

*the first hypothesis states that students aspirations after secondary schools is independent of gender.

***Table1 chi square analysis of the influence of gender on students aspirations after secondary schools.**

Students aspirations after secondary schools

Sex	Higher education	Employment	Total	X^2
Male	178(185.5)	37(29.5)	215	4.42
Female	193(185.5)	22(29.5)	215	
Total	371	59	430	

Field survey, 2020.

*Significant at $X^2 = 0.05$, 1d.f

Expected frequencies are in the brackets

* Significant at $X^2 = 0.05$, 1d.f= 3.841

From table one, the computed chi square value is 4.42 where as the table chi square value is 3.841 of 1d.f at 0.05 level of significance. Since the calculated chi square value is greater than the tabulated chi square value, the test is significant. This means that the null hypothesis is rejected. At this point, the students aspirations after secondary schools is dependent on gender.

**while the second hypothesis for the study states that that the students academic choice after secondary schools is dependent on gender.

Table2. Chi square analysis on student academic choice after secondary schools on gender.

Students academic choice after secondary schools

Sex	university	polytechnic	college of education	total	X^2
Male	167(168)	32(25.5)	16(21.5)	215	6.14
Female	169(168)	19(25.5)	27(21.5)	215	
Total	336	51	43	430	

Field survey, 2020.

** significant at $X^2=0.05$, 2d.f

Expected frequencies are in brackets.

** significant at $X^2 0.05, 2d, f=5.991$

From table 2, the computed chi square value is 6.14 where as the table chi square value is 5.991 at 2d.f and 0.05 level of significance. Since the calculated chi square value is greater than table chi square value, the test is also significant. This means that the null hypothesis is rejected. At this point, the students academic choice after secondary schools is dependent on gender.

***Finally, the third hypothesis states that students employment choice after secondary schools is dependent on gender.

*****Table 3. Chi square analysis on students employment choice after secondary schools on gender**

Sex	Students employment choice				total	X^2
	self employment	teaching	civil service	private sector		
Male	51(44.5)	15(22.5)	64(72.5)	85(75.5)	215	
Female	38(44.5)	30(2.5)	81(72.5)	66(75.5)	215	
Total	89	45	145	151	430	11.28

Field survey, 2020.

***significant at $X^2= 0.05, 3d.f$

Expected frequencies are in the brackets

***significant at $X^2=0.05, 3d.f=7.815$

From table 3, the computed chi square value is 11.28 where as the table chi square value is 7.815 with 3d.f at 0.05 level of significance. This means that the null hypothesis is rejected. At this point, the students employment choice after secondary schools is dependent on gender.

Discussion of findings

The findings of this study reveals that the students aspirationas, academic choice, employment choice after secondary schools depend on gender. However this simply means that ones sex group determines ones sex vocational and academic preferences after secondary school.

For instance Jacquelynne eccles (2011) in his study gendered educational and occupational choices argue that both sex differences and differences in individuals within each sex in educational, occupational preferences are connected to differences in persons expectations for success and subjective task value

Eyo,M.B et ai., (2011) in their findings concluded that gender significantly influences students occupational preferences of both counseled and uncounseled students.

Conclusion and recommendation

Based on the findings of the study it is concluded that gender has a great influence on students' aspirations, academic choice, and employment choice after graduating from secondary schools. This simply implies that the vocational and academic preferences of senior secondary students depend on gender.

It is therefore recommended that government should encourage the teaching and learning of prevocational subjects in secondary schools so as to help students in making appropriate decision in academic and vocational choice after graduating from secondary schools.

It is also recommended that, every secondary schools should have a teachers guidance counselors that will give these students educational and occupational talks and also motivate both sex by providing them with relevant materials that will help them in vocational and academic decision making.

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