

THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Relationship between School Type and Secondary School Students' Career Aspirations in Nairobi County, Kenya

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Abstract:

This study purposed to investigate how school type was related to career aspirations of secondary school students. Students are admitted into different school types based on the criteria of their marks in KCPE (Kenya Certificate of Primary Education). A lot of stereotyping on "school labels" does exist. National schools produce the best KCSE (Kenya Certificate of Secondary Education) grades apparently making them institutions of fame and prestige. Next in the rank after national schools is extra county schools and at the bottom are sub county schools or district schools (popularly called day schools-producing the bulk of the poor grades). The effect of such glaring academic performance gaps is that most students in the last bottom category miss qualification to prestigious professional careers. The categorization of schools and their academic performance gaps (well known to students) could affect one's self-realization, influencing self-esteem, academic achievement and career aspirations of students. Self-concept theory by Carl Rogers and Social Cognitive theory by Albert Bandura guided this study. The study employed correlational research design. Questionnaires were administered to provide quantitative data using a sample of 480 form 4 students drawn from 12 public secondary school in Nairobi County. The 12 public secondary schools were drawn using cluster and purposive sampling. Each school provided 40 students stream using simple random sampling. One Way analysis of Variance (ANOVA) and Chi-Square test statistics was used to establish differences between school type and students career aspirations. ANOVA also tested career aspirations differences for boys and girls by school type. The level of significance in rejecting the null hypothesis was at $p \leq .05$. The study found a significant relationship between school type and career aspirations of students ($f(3, 447) = 14.69, p = .00$). There was also a relationship between students' gender and career aspirations. Most schools from national and extra county schools aspired for higher professional careers compared to majority of sub-county students who aspired for low-level careers. There were more males in realistic and enterprising careers than females while females were majority in investigative, artistic and social careers. It was recommended the need to enhance career guidance and establish self-esteem enhancement programmes, equipped with personnel with requisite skills, more so in sub-county schools. There was also need to expand non-academic opportunities of training to cater for the rising number of sub-county school students.

Keywords: School type (National, Extra-County, County, Sub-County), Career Aspirations, Students

1. Introduction

There is a perception by many that, the school type a student attends has an influence on ones future outcomes of life. National and some extra county schools are associated with high performance, fame and prestige. On the other hand, poor academic performance has been associated with sub-county schools. The last two school categories constitute the bulk of most secondary school students. For instance Nairobi county 2013 KCSE results with 279 secondary schools and a candidature of 20,998 students showed glaring academic performance gaps among schools (elimuonline, 2014). The repercussions to an individual's development with such a majority of students could be enormous. Career aspirations and self-esteem of students are some of the psychological constructs that have been found to have a relationship with academic achievement. According to Haney and Duarlack (1998) cited by Shaffer and Kipp (2014), children and teenagers with low self-esteem exposed to self-esteem enhancement programmes record significant improvements in their academic achievement and personal adjustment, that included career aspirations.

Career aspirations according to Dazinger and Eden (2006) cited by Smulders (2009) refers to a construct embodying individual's occupational identity and desired career goals. Aspirations may have lifelong repercussions in that, they are linked with significant later outcomes. Such outcomes includes where one works and lives together with the standards of living one attains. High school life is critical in a student's career aspirations. Therefore an understanding of any relationship between school type and student's career aspirations becomes important.

Occupational aspirations reflect one's self-concept as asserted by Gottredson (1981) in his theory of circumscription and compromise. Individuals tend to pursue occupations that are in agreement with their self-image and also coupled with the knowledge they have

concerning different occupations. A relationship has been found to exist between career aspirations and self-esteem; and between self-esteem and academic achievement. Academic outcomes of students relates to different school types in Kenya; with national school types having high academic performances and sub county schools exhibiting generally poor grades.

There are four unique stages of occupational development that were identified by Gottredson (1981). Adolescents find themselves in the fourth stage of occupational development. Here they are more interested in inward qualities of an individual that includes ability, motivation and values. "Unrealistic" but desirable choices are eliminated by the adolescents but considering their ability and determination. By the end of schooling, adolescents will have eliminated and narrowed to just a few career choices. High school students are more actively engaged in planning and implementing their post-secondary career options. It is crucial for educationist and counsellors to have adequate information on factors that affect secondary student's choice of careers. Career aspirations studies have been based on theoretical frame works that try to identify the effect in differences of contextual socialization practices among adolescents.

Migunde, Agak and Odiwuor (2012) in their study done in Kisumu municipality, Kenya, cites Lent, Brown and Hacket (2002), that career aspirations of adolescents have been impacted upon by different socialization practices, and how they internalize these different experiences. The current study thus sought to investigate the relationship between different situational school contexts and career aspirations of students. Lent et al (2000) pointed out that there may be direct and moderating effects on career decisions arising from perceived and objective aspects of the environment. Quality of educational experiences may denote objective environmental factors whereas how individuals react to and interpret their surrounding environment may denote perceived environmental factors.

National schools in Kenya have quality educational experiences in terms of developed infrastructural facilities, experienced teachers among others. On the contrary, day schools have no or poorly developed laboratories, inadequate teaching materials and teachers. The study sought to establish any relationship between student's career aspirations and school types they attend. This is informed by these school categories/types that differ in objective environmental factors which may influence career aspirations of individual students. Perceived environmental factors may relate to how a student reacts towards to the category of the school they are admitted to. Those who study in national schools may perceive themselves as "successful", people who have made it in academic achievement that is KCPE, likely to influence their self-esteem, academic engagement and future career aspirations and prospects.

1.1. Research Problem

There has been a consistent academic performance gap among various school types in Nairobi County and Kenya in general. A study done in Nairobi County by Nzomo (2012) revealed that all national public secondary schools had above average mean grades (C+) while majority of sub county schools had below average (D+) grades. Thus, over the year's National schools have become institutions of fame and prestige; making them competitive among other school types. Parents are concerned with the type of school their children attend. This is because favourable school conditions may be related to positive outcomes such as high levels of self-esteem, good academic achievement and realistic career aspirations. Students from sub-county schools with the bulk of below average grades miss qualification criteria to professional prestigious careers. The relationship between the variable of school type and students' career aspirations has not been adequately studied. School type environments could promote or hinder the psychological variables of academic achievement and career aspirations of students. Therefore there was the need to have a study on the relationship between school type and secondary school students' career aspirations.

1.2. Objectives of the Study

- i) To investigate if school type was a factor influencing students' career aspirations.
- ii) To establish if there were gender differences in career aspirations among students.

2. Research Methodology

2.1. Research Design

This study adopted an ex post facto-correlational research design. Correlational research design involves collecting data in order to determine whether and to what degree a relationship exists between two or more quantifiable variables. The degree of the relationship is expressed in a correlational co-efficient (Mugenda & Mugenda, 2003). Correlational research is useful in trying to make prediction about behavior. It is useful when investigating the relationship between naturally occurring variables and with studying individual differences. The relationship between school type and career aspirations of students is naturally occurring variables that can only be correlated for prediction purposes.

2.2. Research Sample

The respondents of the study were drawn from the accessible population of year 2014 students in form 4 classes from 12 public secondary schools in Nairobi County. The 12 public secondary schools from 12 clusters were purposively sampled; to include all school categories (types). Each of the 12 schools provided 40 students stream using simple random sampling ($N = 12 \times 40 = 480$). The form four class was chosen for being the most senior class making the assumption of longer period experience of well internalized school environments or traditions that may have impacted on their personality trait aspects, such as career aspirations.

2.3. Research Instruments

Questionnaires were the main research instruments used to collect data from the students respondents. According to Orodho (2004) questionnaires are the commonly used instruments to collect important information about population. Questionnaires were chosen because they take less time and energy and are less expensive. Specific objectives or research questions and/or hypothesis were addressed in the questionnaire (Mugenda & Mugenda, 2003). Pilot study was done among 65 students from one national school, one county and one sub-county schools. The pilot study assisted in establishing content and construct validity.

2.4. Data Analysis

Data view window of SPSS Version 17 was used to enter the collected data. Qualitative data was thematically analyzed and quantitative data was coded in variable view window of SPSS. Two null hypotheses were analyzed.

H₀1: There is no significant relationship between school type and students career aspirations. This was analyzed using one way Analyses of Variance.

H₀2: There is no significant gender difference in students' career aspirations. This was analyzed using Chi-Square.

3. Research Findings

3.1. Relationship between School Type and Students' Career Aspirations

The school type of the respondents was independent variable, which was measured at the nominal level with school categories as national, extra county, county and sub-county school types. Career aspirations was dependent or outcome variable measured using career aspirations questions. Students selected only two career options (1st and 2nd options) derived from modified Harrington-O'Shea (1993) Career Cluster form and Holland's RIASEC Aspirations Code model. The question answered read, "what kind of career do you aspire to take after school?" There was a range of 20 careers that formed the selection pool. The research adopted a survey done by Hoover (1998), which came up with three career levels/categories and six sub groups with different rank means according to ratings of occupations based on societal prestige. The three career levels are: High-level careers, medium level careers and low-level careers. Some modifications on Hoover's careers was done to suit the Kenyan society. The career aspirations levels were analyzed to determine differences by school type using one way ANOVA tests. The students' frequency of responses from different schools on whether one will pursue a university degree after form 4 KCSE is shown in Table 1 below.

| | School type | | | | | | | | Total | |
|----------|-------------|-----|--------|-----|--------------|-----|-----------------|-----|-------|-----|
| | Sub County | | County | | Extra County | | National School | | F | % |
| Response | F | % | F | % | F | % | F | % | F | % |
| Yes | 122 | 67 | 102 | 92 | 77 | 96 | 77 | 100 | 378 | 84 |
| No | 8 | 4 | 2 | 2 | 0 | 0 | 0 | 0 | 10 | 2 |
| Not Sure | 53 | 29 | 7 | 6 | 3 | 4 | 0 | 0 | 63 | 14 |
| Total | 183 | 100 | 111 | 100 | 80 | 100 | 77 | 100 | 451 | 100 |

Note: F = Frequency % = percentage

Table 1: Responses to the item "I will Seek to Pursue a University Degree" and School Type Cross Tabulation

Majority (84%) of the students across all the school types desired to pursue university education after completing secondary education. However, the sub-county school students were 67% against 100% in the national schools, and 96% in extra-county schools. Almost a third of the students from sub-county schools were not sure whether they will attend university

Students were to respond on whether one would enrol for a college certificate after form four KCSE exams. The responses are tabulated in Table 2

Slightly above a third of the students aspired to enrol for a certificate or diploma course after form 4 KCSE examination, with majority of them from sub-county schools at 55 percent followed by county schools at 44 percent. National and extra-county schools only recorded a quarter of their students ready to pursue a diploma or certificate course.

| Response | School type | | | | | | | | Total | |
|----------|-------------|-----|--------|-----|--------------|-----|----------|-----|-------|-----|
| | Sub County | | County | | Extra County | | National | | Freq | % |
| | Freq | % | Freq | % | Freq | % | Freq | % | Freq | % |
| Yes | 101 | 55 | 44 | 40 | 21 | 26 | 19 | 25 | 185 | 41 |
| No | 19 | 10 | 34 | 31 | 37 | 46 | 38 | 49 | 128 | 28 |
| Not Sure | 63 | 34 | 33 | 30 | 22 | 28 | 20 | 26 | 138 | 31 |
| Total | 183 | 100 | 111 | 100 | 80 | 100 | 77 | 100 | 451 | 100 |

Table 2: Responses to the Item "I will Enrol for a College Certificate or Diploma" and School Type Cross Tabulation

A sizeable percentage of students (at 31 percent) were also not sure whether they would enrol for a certificate or diploma after form 4 KCSE exams. Majority of them also came from sub-county schools with 34 percent. County schools had the least at 22 percent whereas national and extra county schools recorded 26 and 28 percent respectively. Probably these findings may suggest that there are

a number of students in the sub-county schools category who lack career focus, or unsure about themselves in career occupation and aspirations.

High-level professional careers will require meaningful training. However, semi- skilled careers may have direct employment entry from high school graduates. A question on whether a student would seek direct employment after high school without any formal training was asked. This was assumed it would aid stakeholders to understand fully students' career aspirations levels.

Using 4-point Likert scale of measurement, that is, Strongly Agree (4-point) to Strongly Disagree (1-point), Students were asked to state the influence of school type in choosing a career. The question stated- "the type of career one chooses is influenced mostly by the school type a student attends" The responses are shown in Table 3.

| | School type | | | | | | | | Total | |
|-------------------|-------------|-----|--------|-----|--------------|-----|----------|-----|-------|-----|
| | Sub County | | County | | Extra County | | National | | | |
| | F | % | F | % | F | % | F | % | F | % |
| Strongly Agree | 30 | 16 | 9 | 8 | 3 | 4 | 12 | 16 | 54 | 12 |
| Agree | 35 | 19 | 11 | 10 | 18 | 23 | 24 | 31 | 88 | 20 |
| Disagree | 48 | 26 | 25 | 23 | 22 | 28 | 26 | 34 | 121 | 27 |
| Strongly Disagree | 70 | 38 | 66 | 59 | 37 | 46 | 15 | 19 | 188 | 42 |
| Total | 183 | 100 | 111 | 100 | 80 | 100 | 77 | 100 | 451 | 100 |

Table 3: Responses to the Item-School Type Influence on students' Career Choice and School Type Cross Tabulation

Majority of the students across all school types (at 69 percent) disagreed that the career type one chooses is mostly influenced by the school type. The county school students strongly disagreed at 59 %, extra-county at 46%, sub-county at 38% and national school students at 19%. Only 32 percent of the students agreed that the type of career one chooses is influenced mostly by the school type. The highest percentage of this notion came from national school students at 47% and sub-county school students at 35%

Table 4 and 5 shows the career aspirations frequency among all students arranged in a rank order (in terms of popularity) within the three career levels/groups. The three career levels were determined by adopting a modified survey done by Hoover (1998) that established the ratings of occupations based on societal prestige. The first category was high-level careers, second category was medium level careers and third category was low-level careers.

| High Level Careers | Frequency | Percentage |
|--------------------------|-----------|------------|
| Engineering | 90 | 38.3 |
| Law | 67 | 28.5 |
| Medicine | 41 | 17.4 |
| Accounting/ Economist | 32 | 13.6 |
| Pharmacy | 3 | 1.3 |
| Piloting | 2 | 0.9 |
| Total | 235 | 100 |
| Medium Level Careers | Frequency | Percentage |
| Journalism | 35 | 38.5 |
| Teaching | 18 | 19.8 |
| Nursing | 13 | 14.3 |
| Military/ Police | 11 | 12.1 |
| Agriculture | 6 | 6.6 |
| Theology | 5 | 5.5 |
| Social work/ Counselling | 3 | 3.3 |
| Total | 91 | 100 |
| Low Level Careers | Frequency | Percentage |
| Music/ Art | 61 | 48.8 |
| Commercial farming | 24 | 19.2 |
| Building & construction | 12 | 9.6 |
| Wholesale/ Retail trade | 11 | 8.8 |
| Beautician | 8 | 6.4 |
| Cloth Designing | 5 | 4 |
| Transport trade | 4 | 3.2 |
| Total | 125 | 100 |

Table 4: Responses to-First Choice Career Aspirations-levels by Rank Order

| | | Sub County | County | Extra County | National | Total |
|--------------------------|---|------------|--------|--------------|----------|--------|
| Medicine | F | 2 | 12 | 15 | 12 | 41 |
| | % | 4.9% | 29.3% | 36.6% | 29.3% | 100.0% |
| Law | F | 25 | 13 | 18 | 11 | 67 |
| | % | 37.3% | 19.4% | 26.9% | 16.4% | 100.0% |
| Engineering | F | 23 | 27 | 16 | 24 | 90 |
| | % | 25.6% | 30.0% | 17.8% | 26.7% | 100.0% |
| Accounting/ Economist | F | 13 | 6 | 5 | 8 | 32 |
| | % | 40.6% | 18.8% | 15.6% | 25.0% | 100.0% |
| Pharmacy | F | 0 | 0 | 0 | 3 | 3 |
| | % | .0% | .0% | .0% | 100.0% | 100.0% |
| Piloting | F | 0 | 1 | 1 | 0 | 2 |
| | % | .0% | 50.0% | 50.0% | .0% | 100.0% |
| Teaching | F | 15 | 3 | 0 | 0 | 18 |
| | % | 83.3% | 16.7% | .0% | .0% | 100.0% |
| Nursing | F | 4 | 7 | 1 | 1 | 13 |
| | % | 30.8% | 53.8% | 7.7% | 7.7% | 100.0% |
| Agriculture | F | 4 | 1 | 1 | 0 | 6 |
| | % | 66.7% | 16.7% | 16.7% | .0% | 100.0% |
| Social work/ Counselling | F | 2 | 0 | 0 | 1 | 3 |
| | % | 66.7% | .0% | .0% | 33.3% | 100.0% |
| Military/ Police | F | 7 | 0 | 2 | 2 | 11 |
| | % | 63.6% | .0% | 18.2% | 18.2% | 100.0% |
| Journalism | F | 18 | 7 | 8 | 2 | 35 |
| | % | 51.4% | 20.0% | 22.9% | 5.7% | 100.0% |
| Theology | F | 0 | 5 | 0 | 0 | 5 |
| | % | .0% | 100.0% | .0% | .0% | 100.0% |
| Music/ Artist | F | 27 | 18 | 10 | 6 | 61 |
| | % | 44.3% | 29.5% | 16.4% | 9.8% | 100.0% |
| Building & construction | F | 5 | 1 | 3 | 3 | 12 |
| | % | 41.7% | 8.3% | 25.0% | 25.0% | 100.0% |
| Commercial farming | F | 13 | 7 | 0 | 4 | 24 |
| | % | 54.2% | 29.2% | .0% | 16.7% | 100.0% |
| Beautician | F | 8 | 0 | 0 | 0 | 8 |
| | % | 100.0% | .0% | .0% | .0% | 100.0% |
| Cloth Designing | F | 4 | 1 | 0 | 0 | 5 |
| | % | 80.0% | 20.0% | .0% | .0% | 100.0% |
| Wholesale/ Retail trade | F | 9 | 2 | 0 | 0 | 11 |
| | % | 81.8% | 18.2% | .0% | .0% | 100.0% |
| Transport trade | F | 4 | 0 | 0 | 0 | 4 |
| | % | 100.0% | .0% | .0% | .0% | 100.0% |

Table 5: Responses to Career Levels (First Choice) and School-type Cross Tabulation

In the category of high-level careers, engineering was most popular among students from all schools with 38.3%, law was second at 28.5%, followed by medicine at 17.4%. By school type, engineering was popular among students in county schools at 30% and national schools at 26.7%. Medicine was most popular among students in extra-county schools at 36.6% and national schools at 29.3%. Sub-county schools had only 4.9% of students who aspired to do medicine.

In the category of middle-level careers, journalism, teaching and nursing were most popular at 38.5%, 19.8 and 14.3% respectively. Theology and social work/counselling were the least attractive among all the students. By school type, teaching was chosen by sub-county school students at 83.3% and 16.7% by county schools. National and county schools never chose teaching. Those who chose nursing mainly came from county schools at 53.8% and 30.8% from sub-county school students. Of the 7.7% of students who chose nursing came from both national and extra-county schools. Military or police was popular among sub-county students at 63.6% and 18.2% for both national and extra county schools. Journalism and social work/counselling was popular among sub-county school students at 51.4% and 63.6% respectively. Theology was chosen by students only from county schools.

In the category of low-level careers, music/art was most popular at 48.8% followed by commercial farming at 19.2%. Transport trade and cloth designing was least popular among students at 3.2% and 4% respectively. By school type, low-level careers were popular among students in sub-county schools. For instance, those who chose music/art, 43.3% came from sub-county schools and 29.5% came from county schools. Only 9.8% of students came from national schools. The beauty industry, cloth and design attracted small

number of students all from sub-county and county schools. Almost all the low-level careers were quite unpopular with students from national and extra county schools. For example, the beauty profession, cloth design, whole sale/retail trade was not aspired by students from national and extra county schools.

Using the RIASEC model by Holland (1994), these careers were grouped into the six career themes (categories). This is shown in Table 6

| | Frequency | Percent |
|---------------|-----------|---------|
| Realistic | 190 | 42.1 |
| Investigative | 67 | 14.9 |
| Artistic | 109 | 24.2 |
| Social | 8 | 1.8 |
| Enterprising | 27 | 6.0 |
| Conventional | 50 | 11.1 |
| Total | 451 | 100.0 |

Table 6: Responses of Students' on First Choice Category-RIASEC Career Aspirations

Realistic career types were most popular among all students at 42.1% followed by artistic careers at 24.2%. Social type careers which include teaching, social work/counselling and theology attracted a small portion of students at 1.8%, followed by enterprising careers.

3.2. Hypothesis Testing

In relation to the objective, to investigate if school type was a factor influencing students' career aspirations, testing of the null hypothesis was done. H_01 : There is no significant relationship between school type and students' career aspirations. One-way analysis of variance (ANOVA) statistical test was employed to test this hypothesis.

School type is the independent variable measured at nominal level in four categories of Sub-county, county, extra-county and national schools. These formed four independent groups coded from sub-county school-1 to national school-4. Career aspirations are the dependent variable where various ranks/ratings of careers were established in three levels (as analysed earlier in Table 4). This was measured at continuous/interval level using career rank means between lowest of 1 to highest of 3.

3.3. Descriptive Statistics

The career level mean for students in national schools was 2.58 (SD = 0.77, N = 77) followed closely by the students in extra-county with a mean of 2.53 (SD = 0.76, N = 80). A distance third was the students in county schools who registered a career mean of 2.27 (SD = 0.85, N = 111). The students in district secondary schools registered a mean of 1.96 (SD = 0.85, N = 183). This is illustrated in Table 7.

| Career level | | | |
|---------------------|-----|--------|----------------|
| School type | N | Mean | Std. Deviation |
| Day/District School | 183 | 1.9617 | .85399 |
| County | 111 | 2.2703 | .85223 |
| Extra County School | 80 | 2.5250 | .76266 |
| National School | 77 | 2.5844 | .76693 |
| Total | 451 | 2.2439 | .86045 |

Table 7: Descriptive Statistics for Students' Career Level versus School type

3.4. Test of Homogeneity of Variances

Levene Statistic indicates the test of equality of means (that the variances of both samples are equal). The p value = 0.037, indicating that the variances are statistically different. Bonferroni procedure assumes equal variances and our sample size is large.

| Career level | | | |
|------------------|-----|-----|------|
| Levene Statistic | df1 | df2 | Sig. |
| 2.854 | 3 | 447 | .037 |

Table 8: Test of Homogeneity of Variances

3.5. Robust Test of Equality of Means

The robust test of equality of means indicated that the career level means among the school types is statistically significant, $p = 0.00$. Hence, we can proceed and report the ANOVA.

| Career level | | | | |
|----------------|-----------|-----|---------|------|
| | Statistic | df1 | df2 | Sig. |
| Welch | 15.145 | 3 | 207.251 | .000 |
| Brown-Forsythe | 15.353 | 3 | 387.441 | .000 |

Table 9: Robust Tests of Equality of Means

ANOVA

According to results in Table 9, there is much difference between the two Mean Squares (9.965 and 0.678), resulting in a significant difference ($f(3,447) = 14.688, p = 0.00$). The null hypothesis was rejected. Thus, the mean career level of students in district, county, extra-county and national schools are not equal.

| Career level | | | | | |
|----------------|----------------|-----|-------------|--------|------|
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 29.895 | 3 | 9.965 | 14.688 | .000 |
| Within Groups | 303.275 | 447 | .678 | | |
| Total | 333.171 | 450 | | | |

Table 10: Career Level versus School type ANOVA Statistics

3.6. Post Hoc Testing

The null hypothesis having been rejected, in that there are differences in career aspirations among school types, Post hoc testing identifies these differences.

| Career level | | | | |
|---------------------|---------------------|-----------------------|------------|------|
| (I) School type | (J) School type | Mean Difference (I-J) | Std. Error | Sig. |
| Day/District School | County | -.30852* | .10261 | .015 |
| | Extra County School | -.56325* | .10609 | .000 |
| | National School | -.62267* | .10781 | .000 |
| County | Day/District School | .30852* | .10261 | .015 |
| | Extra County School | -.25473 | .11753 | .136 |
| | National School | -.31415* | .11909 | .045 |
| Extra County School | Day/District School | .56325* | .10609 | .000 |
| | County | .25473 | .11753 | .136 |
| | National School | -.05942 | .12210 | .962 |
| National School | Day/District School | .62267* | .10781 | .000 |
| | County | .31415* | .11909 | .045 |
| | Extra County School | .05942 | .12210 | .962 |

Table 11: Multiple Comparisons: Games-Howell- career Levels versus School-type

Table 11 'Multiple Comparisons' shows that four out of six pairs vary.

District versus County school _ Sig. = 0.015. These groups vary.

District versus Extra-County school _ Sig. = 0.000. These groups vary.

District versus National school _ Sig. = 0.000. These groups vary.

County versus Extra-County _ Sig. = 0.136. These groups do not vary.

County versus National _ Sig. = 0.045. These groups do not vary.

Extra-County versus National _ Sig. = 0.962. These groups do not vary.

Chi-square statistics was also done to test whether there are significant relationships in students' career aspirations by school type. These results indicate that there is a statistically significant relationship between the school a student attends and their career aspirations ($\chi^2(57) = 148.870, p = 0.00$). Hence, the null hypothesis was rejected.

| | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|---------|----|-----------------------|
| Pearson Chi-Square | 148.870 | 57 | .000 |
| Likelihood Ratio | 170.989 | 57 | .000 |
| Linear-by-Linear Association | 22.280 | 1 | .000 |
| N of Valid Cases | 451 | | |

Table 12: First Choice Career Type and School Type Chi-square Tests

3.7. Gender Differences in Students' Career Aspirations

Students indicated in the questionnaire their gender category (male or female)

Related to perception, Students were asked to state whether being a male or female influenced one's choice of career. The question stated, "Being a male or female has a major influence on how you choose your career" The responses are analysed in Table 13

| | School type | | | | | | | | Total | |
|-------------------|-------------|-----|--------|-----|--------------|-----|-----------------|-----|-------|-----|
| | Sub County | | County | | Extra County | | National School | | F | % |
| | F | % | F | % | F | % | F | % | | |
| Strongly Agree | 31 | 17 | 12 | 11 | 3 | 4 | 10 | 13 | 56 | 12 |
| Agree | 51 | 28 | 20 | 18 | 11 | 14 | 22 | 29 | 104 | 23 |
| Disagree | 48 | 26 | 17 | 15 | 20 | 25 | 20 | 26 | 105 | 23 |
| Strongly Disagree | 53 | 29 | 62 | 56 | 46 | 58 | 25 | 32 | 186 | 41 |
| Total | 183 | 100 | 111 | 100 | 80 | 100 | 77 | 100 | 451 | 100 |

Table 13: Responses on Students' Perception on Gender Influence on Career Choice by School Type Cross Tabulation

Majority of the students disagreed (64%) with 41 percent strongly disagreeing that gender does influence how one chooses the career type. The least of those who disagreed came from sub-county schools with 55% and national schools with 58%. Extra county and county schools had the highest number of students who strongly disagreed that gender does influence the choice of career. It is notable that the highest percentage of those who believed that gender had great influence on choice of career came from sub-county school students with 45%.

Holland (1994) grouped career types into six categories. He postulated that these career types aspired for are influenced by personality and environmental factors. These career types are popularly known as RIASEC career codes. R-Realistic, I- Investigative, A- Artistic, S- Social, E- Enterprising and C- Conventional. According to the finding, there were more males who aspired for engineering courses than girls at 24% and 14% respectively. Law had marginal differences at 15% for boys and 14% for girls. Popular courses across gender were engineering, law and music/art. Medicine attracted only 6% of males and 14% of females. In relation to RIASEC code model, more males aspired for realistic careers with 45% against 39% females. Artistic careers were popular with females at 30% and males at 20%. There was slight difference between Investigative careers between boys and girls at 15% and 14% respectively.

3.8. Hypothesis Testing.

In relation to the objective, to find out if there is gender differences in students' career aspirations by school type. The following null hypothesis was formulated.

H₀₂: There is no significant gender difference in students' career aspiration. Table 14 give the data of students' first choice career aspirations by gender using the RIASEC model and table 15 gives the chi-square statistics

| | RIASEC clusters | Male | | Female | | Total | |
|--|-----------------|------|-----|--------|-----|-------|-----|
| | | N | % | N | % | N | % |
| | Realistic | 117 | 45 | 73 | 39 | 190 | 42 |
| | Investigative | 40 | 15 | 27 | 14 | 67 | 15 |
| | Artistic | 52 | 20 | 57 | 30 | 109 | 24 |
| | Social | 3 | 1 | 5 | 3 | 8 | 2 |
| | Enterprising | 18 | 7 | 9 | 5 | 27 | 6 |
| | Conventional | 32 | 12 | 18 | 10 | 50 | 11 |
| | Total | 262 | 100 | 189 | 100 | 451 | 100 |

Table 14: Students' First Choice Career Aspirations Category and Gender Cross Tabulation using RIASEC Model

| | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|--------|----|-----------------------|
| Pearson Chi-Square | 38.152 | 19 | .006 |
| Likelihood Ratio | 44.044 | 19 | .001 |
| Linear-by-Linear Association | .036 | 1 | .849 |
| N of Valid Cases | 451 | | |

Table 15: Students First Choice Career Aspirations and Gender Chi-square Tests

These results indicate that there is a statistically significant relationship between the gender of the students and their career aspirations, $\chi^2(19) = 38.15, p = .006$. Hence, the null hypothesis was rejected. There were more males in realistic and enterprising careers than females while females were majority in investigative, artistic and social careers.

6. Discussions of the Results

The findings revealed that there is a significant relationship between the school type a student attends and their career aspirations. A high majority of students from national schools prefer to pursue university education than those in sub-county/day schools. Majority of students from sub-county schools preferred to enrol for a certificate or diploma course. Over a third of all students from sub-county schools being not sure to pursue university education or enrolling for a certificate or diploma, may point to a majority of students from sub-county schools with career indecisiveness and lack of focus in one's future career.

The theoretical concept of self-efficacy by Bandura (1970) comes into play where a person thinks he or she is capable of doing a task, influencing their behaviour. Self-efficacy is influenced by several factors for example, personal accomplishments and failures. National school students see themselves as successful in academic achievements and this boosts their self-esteem. They are likely to set higher career goals different from the sub-county/day school students who may perceive themselves as "unsuccessful". The study findings were consistent with the study done by Wairimu (2012) on career aspirations and expectations of secondary school students of 8-4-4 system of education in Kiambu, Kijido and Machakos districts, Kenya. This study showed that 8-4-4 system of education had influence on students in various school categories due to differences in school facilities and teachers.

Mutua (2009) in his study "relative influence on selected predictor variables on occupational aspirations of secondary school students in Nairobi province, Kenya" found that academic achievement had the largest influence on occupational aspirations. His findings relate to the current study where national school students perform better academically than sub-county students, thus showing glaring disparities in their career aspirations. The findings differed from the results by Migunde et al (2012) study on, impact of secondary schools on students' career aspirations in Kisumu municipality, Kenya. School type included public, private, boys and girls schools. This study found that most students from different school types prefer the investigative and enterprising career types as opposed to the current findings where majority of students preferred realistic career types especially courses as engineering was very popular among national school students. Mostly students preferred enterprising, artistic and social careers from county and sub-county schools.

The findings have revealed a significant relationship between gender and career aspirations of students. According to Gottfredson (2005), adolescent students have achieved an adult level understanding of the sex type and prestige level of common occupations. He argued that adolescents start to eliminate occupational choices based on sex type and prestige levels. Similarly, various studies have shown significant relationships existing between gender and career aspirations. From the current study, career aspiration differences do exist between male and female students. More males aspired for engineering courses than girls. Law had marginal differences. Artistic and social careers were more popular in girls than boys. Boys were more in realistic and investigative careers. Both boys and girls at national school levels aspired for high level careers like engineering and law compared to both boys and girls at sub-county schools who aspired for low level careers like clothing and design and clerical work. Being in a boys' only or girls' only school or co-educational school was not seen to have had any influence in career choice. The influence is seen to occur in career level choices among students in various categories of schools from sub-county to national schools.

Similarly, in the study done by Tang and Pang (2008), the findings revealed that females were most interested in and had higher self-efficacy on occupations that involved working with people and ideas (that is, Artistic and social types in Holland's theory). Boys were more inclined to Realistic and Investigative, Enterprising and Conventional types. This study was done among 141(80 females 61 males) high school students in middle-income to upper-income Midwest suburban public school. In the current study, there were similar results with more boys in realistic and investigative careers whereas girls aspired mostly artistic and social careers. Both studies used the RIASEC model of career aspirations (Holland, 1994). In addition, similar results were got by Obura (2012) in a study on gender and students' perception of career aspirations in secondary schools in Kisumu County, Kenya.

7. Conclusion

The findings of this study have shown that there is a significant relationship between students' career aspirations and the school-type attended. A high majority of students from national schools prefer to pursue university education than those in sub-county/day schools, whose majority preferred to enrol for a certificate or diploma course. Over a third of all students from sub-county schools being not sure to pursue university education or enrolling for a certificate or diploma, may point to a majority of students from sub-county schools with career indecisiveness and lack of focus in one's future career. Most students from national and extra county schools aspired for high level careers as compared to sub-county students who aspired for low-level careers.

8. Recommendations

- i) Having a majority of students from sub-county schools preferring to seek direct employment and others not sure, whether they will pursue university education after form 4 KCSE, may imply curtailing career progression for some students. Therefore there is need to enhance career guidance and establish self-esteem enhancement programmes in schools. The guidance and counselling departments in schools should be equipped with personnel having requisite skills and knowledge. Teachers in the sub-county schools need to identify students who have potential and interest in high-level careers like engineering, law and medicine. These students will require individual motivation from teachers to endeavour to excel in academic performance to qualify for entry criteria into these courses.
- ii) There is need to expand non-academic opportunities of training to accommodate the rising number of sub-county students who mostly aspire these areas according to this study. These areas include music and art, textile designing, security, transport, trade and commerce and agriculture.

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