

Relationship Between Personality Types and Career Choice Among Undergraduate Students of Maseno University, Kenya

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Abstract

Training institutions in most parts of the world place high premium on those who excel in examinations based on scholastic intelligence. In Kenya, students are admitted into available undergraduate degree programmes in public universities based on their performance in Kenya Certificate of Secondary Education (KCSE). Yet, the Bachelor of Education (B.Ed) degree programmes offered in the School of Education at Maseno University have a strong bearing on personality types and not all the students admitted can fit in them. Academic qualification remains a challenge to a majority of students (79.4%) in choosing a career; hence a significant number (94%) of students end up settling for what is available rather than their choice. Apparently, limited attention has been given to exploring the relationship between students' unique personality-occupational interests hence the current low (7%) college career satisfaction level. The purpose of the study therefore, was to establish the types of personality and their relationship with career choice among first-year B.Ed students of Maseno University, Kenya. The objectives of the study was to establish Holland personality types across gender; to determine the level of relationship between personality types and career choice in the B.Ed programmes of Maseno University The study was guided by the Holland Code Theory (1997). Correlation and descriptive survey designs were adopted for the study. The target population consisted of the 490 first-year B.Ed students admitted in the Academic year 2011/2012 in the School of Education. The study sample consisted of 220 first-years B.Ed students drawn using proportionate stratified sampling. Data was collected by use of Questionnaire and document analysis guides. The questionnaire was piloted using 10% (n = 49) of the study population Pearson Product Moment correlation was used to determine reliability at alpha level 0.05. The questionnaire had an acceptable reliability index of 0.84. Quantitative data was coded and analyzed using descriptive statistics such as mode, frequency counts and percentages. Gender difference in personality types was examined using percentages and mean gender differences across personality types. Further, the degree of relationship between personality types and career choice was established using cross tabulation with chi-square test and Likelihood Ratio test. Qualitative data was transcribed into text form of emerging themes and reported. Gender was found to be strongly correlated to personality types ($X = 34.962$, $df = 5$, $p = .000$) with more males classified as realistic and investigative and more females as social type. The results of the of the chi square test likelihood ratio test show very high ($p < .000$) level of relationship between personality types and career choice. The study concludes that students at Maseno University can be classified into the six Holland personality types which correlate significantly with gender. The study further concludes that there is also a significant relationship ($p < .000$) between personality types and career choice. The study recommended that the need to investigate factors at the university environment which influences the development of personality types among female and male students. Significantly, the study provides a useful guide to students, education policymakers and university staff for career choice, training and retention efforts and placement.

Keywords: Personality, Gender, Career choice, degree program

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1. Introduction

Academic results remain the main promotional devices in education systems at all levels of education in most parts of the world and a means of placing students in broad superficial intelligent-quotient (I.Q) based career training groups. In Kenya, education reforms have led to increased number of students enrolling in the universities. According to UNESCO (2008) as cited by Wagah, Agak and Indoshi (2010) education systems in Africa are too theoretical and academic, ignoring practical aspects that would prepare youth for productive careers. Talents, skills, abilities and interests are hardly tapped or encouraged. Yet, many students graduating from these universities remaining dissatisfied with their careers or changing career paths altogether. (Gitonga, 2012).

The establishment of a vocational identity in form of clear and stable picture of one's abilities, interests and talents is critical in the prevention of vocational crisis (Shearer, 2006) Therefore if a university academic environment is to reward certain patterns of students' abilities and interests, it's imperative that students are admitted into degree programmes that are compatible with their personality types (Allen, 2008).

Personality is a dynamic and organized set of characteristics possessed by a person that uniquely influences his or her cognitions, motivations and behaviors in various situations (Psychometric Assessment for Selection and Development PASD, 2012). Human personalities differ because of different traits within people (Mweru &

Njuguna, 2009; Pervin, Cerrone & John, 2005). Psychologist John Holland (Holland.com, 2012) came up with Holland Codes which describes personality types of Realistic, Investigative, Artistic, Social, Enterprising and Conventional (RIASEC). People have unique combinations of these types although most people can be described by a single most prominent type with others providing a moderating influence on behavior and preferences. Differentiation occurs to persons who are dominated by a single type. (Cotter & Fouad, 2011; Woods & Hampston, 2010).

Daisy and Tracey (2007) asserts that the basic Holland's structure (quasi-circumplex) is invariant across gender although the distances between dimensions vary in different samples. According to Wais, Firker and Henning (2007) women tend to be of Artistic and Social type unlike men who tend to choose Investigative and Realistic type. Males had higher self efficacy and are likely to be Realistic, Investigative, Enterprising and Conventional type. Kniveton (2004) reported that males placed Realistic type top of their list while females put it at the bottom while Artistic type was high on female list. Abdullah, Bakar and Othman (2009) found that 70% males are Realistic type, 75% females chose Social type while 62% females choose Artistic type. Similarly, Migunde (2011) found Investigative type, Males 44.3% and females 33.9%; Social type was most chosen by females (18%) and least chosen by males (3.2%). The Realistic type was mostly chosen by males (11.4%) and the least chosen by females (2.2%). To support the role of the universities to develop distinct abilities and competences using existing career development theories are necessary, particularly using theory based interest tool.

The comparative study by Glasser et al (2003) demographically focused on adjudicated male youth only, Green's (2010) action research focused on female fashion students only hence was demographically limited while Onoyase and Onoyase's (2009) did not address gender difference; Migunde et al (2011) focused on form four students, however this correlation study examined gender related difference in personality types among the first-year undergraduate Bachelor of Education students of Maseno University. Most studies suggest gender disparities in choice of science-based types. In Kenya, the gender differences in personality have been related to cultural beliefs and socialization factors; however this study focused on the relationship between personality types and gap, this study examined the Holland's theory in classifying students according to their personality types and relationship with career choice among first year B.Ed students.

The Holland Code Career Model matches personality with a vocational environment (Hollandcodes.com 2012; Toomey, Levinson & Palmer, 2009). Holland (1997) further argues that people with specific vocational personality types are attracted to activities and occupations associated with those types, and they demonstrate behavioral repertoires, patterns of likes and dislikes, and concordant attitudes and values that support their developing interests. A Realistic personality type would thrive in a Realistic environment, for example a mechanic working in an auto repair shop. Investigative personality type is drawn to scientific and mathematical occupations, trouble-shooting, problem-solving, and explorative or positions classified as analytical or intellectual, for example a scientist working in a laboratory (Shearer, 2010; Turner et al, 2008). The artistic personality type like to work in artistic settings which offer opportunities for self and creative expression in artistic media hence rewarding their creative thinking and behavior (Lawrence, 2012; Hollandcodes.com, 2012; Turner et al, 2008; PASD, 2012; Gottfredson & Holland, 1996). Social personality type is suited for social or interpersonal occupations such as teaching and advising or simply working in an industry where helping or exercising their humanitarian efforts is a goal. Enterprising personality type is interested in taking on a leadership role would benefit in finance or entrepreneurship. Conventional type is drawn to clerical occupations, such as the manipulation of data, or systematic details. (Hollandcodes.com, 2012; Turner et al, 2008; PASD 2012; Gottfredson & Holland, 1996).

Career choice is a process of making a choice on a suitable career. For the purpose of this study, career choice refers to the B.Ed degree programmes in which the students are training in at Maseno University, Kenya. Maseno University offers five undergraduate B.Ed degree programmes namely B.Ed-Arts, B.Ed-Science B.Ed-Special Needs, B.Ed- Early Childhood development and Education and B.Ed- French in the School of Education (Academic Division, 2012). The modal students' admission grade in public universities is B+. Recruitment into these programmes is through self sponsored (parallel) or through JAB. Interestingly, 85% of students in public universities are not studying degrees of their selection and interests despite scoring well in KCSE while 96.1% are not allocated courses of their choice. According to Gudo (2012), the entry qualifications are only useful for identifying admissible university students as well as for predicting their potential to achieve the expected learning outcome but there is need to consider the personality interests of the students during admission process. According to Obora (2012), many students in Kenya choose careers that eventually lead them to the world of work in employment opportunities not of their interest. Hartsog (2007) as cited by Green ((2010) found that among Fashion design students, many are underexposed to occupations and yet they are graduating without entering an occupation for which they are best suited. In Nigeria for instance, many youths are unsuited for their careers as they find themselves in jobs that do not satisfy their interests (Issa & Nwalo, 2008). Career confusion abounds sometimes as education students struggle to explain themselves and their choices in awkwardly composed statements (Kizlik, 2012). Natalie (2006) found that young adults recognized college acceptance and capability to graduate as major barriers to future career choices while Hull-Blanks (2005) reasoned that career indecision are known to be

significant factors in a student's decision to withdraw from college. The cost of dropping out, changing courses and not graduating in time is high as much as two thousand dollars (Allen & Robbin, 2010). According to United States of America Department of Education (2010) students in four-year colleges, only 36% graduated in four years and about 40% dropped out. In Kenya, the Joint Admission Board (JAB) announced that more than five thousand candidates who sat KCSE in 2011 failed to fit in any of their degree choice hence pointing to something wrong about candidates' knowledge on career choices.

Interestingly, Gallup International (2012) surveyed the status of higher education in Kenya and why majority of students were dissatisfied with their career choices. Similarly, the G.O.K (2012) found that most teacher trainees do not have teaching as a first choice at all levels of teacher training. The search for literature has yielded no information on a similar research conducted to examine whether the undergraduate students enrolled in the B.Ed degree programmes possess the personality types congruent to their career choices using established Holland Codes models. Similarly, no specific study based on other theoretical models has been found regarding the relationship between personality types and any other degree programme. This has provided a significant gap which the current study hopes to address. Consequently, these vocational personality types largely remain untapped by Maseno University education and research and therefore widely unknown to most students (Acosta, 2012).

1.1 Statement of the Problem

Studies conducted in Kenya reveal the need to help students acquire in-depth understanding of self in order to choose careers that best suit their personality interests and talents. Further studies on occupational aspirations among the B.Ed students have revealed no assessment has been done to determine personality -vocational interest. With little self-knowledge and congruent career opportunities, the students' end up in career choices which apparently may have no relationship with their personality interests. The B.Ed programmes offered at Maseno University have a strong bearing on different personality-vocational types and not every student undertaking them can fit in them. Considerable evidence also reveals that a B.Ed training programme does not fully exploit the unique personality interests and abilities of university students enrolled in them. Significantly, academic qualification remains a major challenge (79.4%) to a students' career choice. Yet, students are admitted into available degree programmes rather than their choice in the public universities based on their performance in national examination (KCSE). Majority (94%) of students are not allocated courses of their choice while 85% are not studying for degrees of their selection and interests despite scoring well in KCSE hence low (7%) college career satisfaction levels. Apparently, limited attention has been given to exploring the relationship between students' personality type and career choice. Apart from trying to change courses midway, getting supplementary examinations, and dropping out all-together, this can lead to prolonged completion durations. The students become disillusioned and often end up wasting time and resources passively training in less motivating degree choices. This study sought to fill the gap arising from several studies that have been carried out in Kenya which have recommended the need to determine whether the students are aware of their personality-vocational interests and how these relate to their degree choice at the university. Unfortunately, these types of personality are untapped in Maseno university B.Ed programmes and research and most first year undergraduate students unaware of their existence. Hence the focus of the present study is to establish the personality types among male and female first-year B.Ed students and to determine the degree of relationship between their personality types and career choices using Holland Codes since no previous researches has been done on the basis of this theory among first year undergraduate B.Ed students of Maseno University, Kenya.

1.2 Purpose of the Study

The purpose of the study was to establish the relationship between Holland's personality types and career choice among male and female first-year B.Ed students of Maseno University, Kenya.

1.3 Objectives of the Study

Specifically, the study sought to;

1. Establish personality types across gender among the first-year undergraduate students in the Bachelor of Education degree programmes of Maseno University.
2. Determine the level of relationship between personality types and career choice in the Bachelor of Education degree programmes.

1.4 Research Questions

The study sought to answer the following research questions;

1. What are the personality types among male and female first-year undergraduate students in the Bachelor of Education degree programmes of Maseno University?
2. What is the level of relationship between personality types and career choice in Bachelor of Education degree programmes.

1.5 Assumptions of the Study

1. It is assumed that the B.Ed programmes being pursued by the undergraduate students are their ultimate career choice.
2. It is assumed that first year B.Ed students of Maseno University possess overlapping personality types.

1.6 Scope of the Study

The target population was first -year students and therefore the sample did not include all students in other academic years at Maseno University or in any other public university. The B.Ed. programmes were included in the scope of the study because of their strong bearing on different personality-vocational types as reflected in the five cohorts in the B.Ed. programmes. Lastly, B.Ed. programmes are also a representative in study units either in sciences, humanities or languages.

1.7 Limitation of the Study

Due to the uniformity and duplicity of the B.Ed programmes and courses in Kenyan public universities, the study was limited to only one public university, Maseno University. For comprehensive results all public, private universities and other institutions of higher should have been included in the study, but financial and other logistical constraints made it impossible to cover all institutions of higher learning in the country. The integration of (KUCCPS) regular and self-sponsored (Special) students posed a daunting limitation to administration of instruments as it was difficult to decipher the motives of the career choice. Further, cohorts may be difficult to isolate due to confounding variables like similarity in subject choices and common units. The research design was ex-post facto in nature and therefore it was not possible to manipulate any variables. Since the study was done with large groups especially in the B.Ed Arts and B.Ed-Science, this may have obscured important individual and subgroup differences for groups with low enrolments like B.Ed-French. Further, it was practically impossible to get all the respondents in a single assembly, hence simple stratified random sampling ensured only the willing respondents participated in the study. This also ensured the researcher did not select a respondent twice.

1.8 Delimitations of the study

The population under consideration was drawn from one public university, Maseno University. The theoretical framework was definition and classification of personality types were drawn from Holland's classification types and personality types hexagonal model.

1.9 Significance of the Study

The concept of personality types in relation to career choice would be timely for use by students, the education policymakers, university admission officers and lecturers in understanding their students' interests and provide opportunities for universities to examine admissions criteria, training and placement. Although the study used B.Ed students as participants, the significance of this study could extend to other students enrolled in other degree programmes. The career correlation model could be used to develop degree admission and revision model by KUCCPS and the Universities. Finally, it is hoped that the research findings would contribute to the existing knowledge in the field of personality types and career choice as well as prompt further research in the Republic of Kenya.

1.10 Theoretical Framework

The theoretical framework for this study is based on John Holland's Code Theory (1997). The theory provides overlapping representation in personality types and undergraduate students can reflect on these interests to make connections with their career choices (Green, 2010; Gottfredson & Duffy, 2008; Luljural & Cooley, 2006; Shearer, 2006).

In this study, John Holland's (1997) theory has been chosen because it is more inclusive in personality grouping compared to traits theories of Gordon Allport (1897-1967) and Raymond Catell (1905). To identify the corresponding personality type and academic environment, the Dictionary of Holland Occupational Codes gives the qualitative data as shown by According to the theory, the choice of a vocation is an expression of personality and for people to work in an environment where they are fulfilled matching typologies representing the environments and the person would need to exist (Cotter & Fouad, 2011; Green, 2010; Toomey, Levinson & Palmer, 2009; Miller, 2012). This implies that people are most productive when there is a good fit between their personality type and their careers which allow them to exercise their skills and abilities and take on agreeable problems and roles (Lawrence, 2012; Gottfredson & Holland, 1997). For example, the Investigative type would thrive in an investigative environment, such as a scientist working in a laboratory (Shearer, 2010). The artistic type like to work in settings which offer opportunities for self and creative expression in artistic media and are more likely to major in fine arts, music, theatre, and English (Lawrence, 2012). Social personality type is suited for interpersonal occupations such as teaching, advising and humanitarianism. Enterprising personality would benefit

in finance or entrepreneurship (Hollandcodes.com, 2012; Psychometric Assessment for Selection and Development, 2012; Gottfredson & Holland, 1996). Individuals whose personality abilities and interests match their career choice are more successful, display higher levels of motivation and career satisfaction. (Lawrence, 2012; Kamau, 2010). This is through self-knowledge (Shearer, 2007); expansion of career possibilities (Mantzaris, 2012) and enhancement of self-esteem (Kerka, 2012). The Holland's theory has been applied to academic disciplines to help understand the differences between academic disciplines in higher learning. This theory provides a useful method of understanding the relationship between one's vocational interest and educational environment (Smart, Feldman, & Ethington, 2001). Therefore a clear personality profiles on career choices may solidify students' understanding of vocational interest and career aspirations. As rates of unemployment soar and career trends change, many parents conservatively are accepting their children to study courses in disc-jockeying, acting, movie-making, animation and singing as opposed to traditional careers that parents prioritized for their children like accounting, engineering, medicine and law (Oriedo, 2011). According to Gitonga (2012), there is overwhelming evidence that student will select courses congruent to their personality types. This study sought to fill the gap arising from several studies that have been carried out in Kenya which have recommended the need to determine the relationship between students' personal unique abilities, talents, interests and career choice.

1.11 Definition of Terms

For the purpose of the study, the pertinent terms are operationally defined below;

- Career:** A job, a profession, vocation, for which one is trained or is training and which one intends to follow for the whole of one's life
- Career choice** This is preferred occupational choice. For the purpose of this study, career choice includes the undergraduate bachelor of Education degree programmes (B.Ed- Arts, B.Ed- Science, B.Ed- Special Needs, B.Ed- ECDE and B.Ed- French) being pursued by the students.
- Degree program:** This is the specific academic program of study a student is pursuing. An entire training degree programme design made up of course units, content, methodology and organization like B.Ed –Science.
- Gender** The psychological features and sociological categories of males and females created by human cultures. In this study, gender refers to male and female first-year students of Maseno University.
- Personality types:** In this study, personality will refer to attributes/characteristics as shown by the RIASEC three letter codes measured by the SDS activities, with the first letter indicating the personality type.
- SDS profile:** The SDS profile is composed of the generated scoring for each individual test. This profile shows the student's interests, abilities and competences related to the work environment.

2. Personality Types across Gender

Personality is a dynamic and organized set of characteristics possessed by a person that uniquely influences his or her cognitions, motivations and behaviors in various situations (PASD, 2004). Human personalities differ because of different traits within people (Mweru & Njuguna, 2009; Pervin, Cerrone & John, 2005). Several theories provide tools for understanding a great variety of personality issues (Ryckman, 2004). However, Holland (1997) developed the Holland Codes theory of vocational personality types which describes personality type's vis-à-vis occupational interests. Holland (1997) used the term typologies (RIASEC) to assign a code of the six personality types namely Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Holland used a hexagon that reflects the various vocational personality types based on common characteristics that are most prevalent among certain vocational interest groups (Gottfredson & Holland, 1996; Cotter & Fouad, 2011; Woods & Hampston, 2010). According to Daisy and Tracey (2007) the basic Holland's structure (quasi-circumplex) is invariant across gender although the distances between dimensions vary in different samples.

Woods and Hampson (2010) conducted a longitudinal study examining association between childhood personality traits, gender and environment over forty years. Results showed that Realistic environments are strongly male-typed and men who were less open/intellectual as children had higher Realistic scores as adults ($\beta = -.12, t = -2.43, p < 0.05$), this association was not significant for women ($\beta = .04, t = 0.70, p = 0.48$). Conventional environments are strongly female-typed, and we found that women who were less open/intellectual as children had higher Conventional scores ($\beta = .01, t = 0.27, p = 0.79$), but this association was not significant for men ($\beta = .01, t = 0.27, p = 0.79$). Woods and Hampson's study is significant to this study as it provides longitudinal evidence that childhood personality traits predict occupational environments.

Abdullah, Bakar and Othman (2009) did their research in public universities in Malaysia and found that 70%

males choose Realistic career, 75% females chose Social type while 62% females choose Artistic type. The authors further found that males prefer Investigative and Realistic type while females prefer Artistic, Social and Conventional type. Turner et al (2008) examined gender and ethnic differences in the development of Holland (1997) personality types among inner-city adolescents. Participants from these schools were 152 inner-city middle-school adolescents. Results showed gender differences in vocational personality types. There were gender ($F [6,128] = 14.07, p < .001$) differences, with boys having significantly greater R ($F = 36.64, p < .001$) and I ($F = 6.80, p < .011$) vocational personality type scores, and girls having significantly greater A ($F = 9.74, p < .003$) vocational personality type scores. Suggest different pathways to the development of these types for boys and girls. Gitonga, Orodho and Wangeri (2013) explored the relationship between gender and classification of personality types using Holland's Self-Directed Search with 389 third year students at Kenyatta University. The objective of the study was to identify the gender differences in personality types and the choice of the degree program. This found a significant relationship between gender and personality ($X=34.962, df 5, p = 0.000$)

Chemeli (2013) investigated the relationship between personality types and career aspiration among Form Three secondary school students in Eldoret West District. A sample of 429 participants took part in the study. The highest percentage here is on the Enterprising personality type (29.1%), followed closely by the investigative type (24.4%). The study also sought to identify the distribution of personality types in Girls' boarding schools in the District. The Girls' personality types' exhibited majority being Enterprising (29.7%) followed by the Investigative type (22.8%). In Mixed Day Schools, the Investigative personality type had the highest percentage (31.8%) whereas Realistic type has the least (5.3%). The highest percentage of students in the Mixed Day schools had Investigative personality type (31.8%). The other clear outcome is that the Realistic type has very low number of students (5.3%). The almost absent Realistic personality type is because of lack of environment to develop it, as it is believed that Realistic occupations, for example animal caretakers, cooks, technicians do not need much education (Readon & Lenz, 2009).

Gitonga (2012) examined the relationship between gender and personality type. among the 2010/2011 third year students of Kenyatta university, Kenya. The chi-square results ($X = 34.962, df = 5, p = .000$), which suggest a significant relationship between gender and personality types. Migunde et al (2011) explored gender differences in adolescents' career aspirations and career development barriers among 348 form four secondary school students in Kisumu Municipality, Kenya. The results showed that the types chosen by more females than males were Social career (86.9%), Conventional type (70.3%) and Artistic type (68%). Males scored higher on Realistic type (81.8%), Investigative type (52.6%) and Enterprising type (52.9%). The authors further found that the Investigative type is the most preferred type by both males and females.

Similarly, Migunde (2011) investigated factors influencing career choice among form four secondary school students in Kisumu Municipality, Kenya. The author grouped the sample of 332 students' into six groups based on RIASEC. Responses in each type by gender indicated Investigative type, Males 44.3% and females 33.9%; Social type was most chosen by females (18%) and least chosen by males (3.2%). 14.2% females and 7% males chose Artistic careers. The Realistic type was mostly chosen by males (11.4%) and the least chosen by females (2.2%). Migunde (2011) further reported that over 80% males chose Realistic careers while females were less than 20%. Over 50% males chose Investigative careers. More females chose Social career (80%); Conventional careers (60%); and Artistic careers, (70%).

In these studies, gender in the Realistic, Investigative and Social types have been significantly correlated with a high representation of males in realistic and investigative fields while females in social field. In all the studies, student gender showed a weak correlation in Artistic, Enterprising and Conventional types with a somewhat similar distribution in the all the fields. This study examined the Holland's theory in classifying students according to their personality types and career choice. The comparative study by Glasser et al (2003) demographically focused on adjudicated male youth only and Green's (2010) action research focused on female fashion students only hence was demographically limited. Woods and Hampson (2010) conducted a longitudinal study on Holland codes with cause-effect with childhood traits while Turner et al (2008) examined gender and ethnic differences in the development of Holland (1997) personality types among inner-city adolescents; Migunde et al (2011) focused on form four students while other studies suggest gender disparities in choice of science-based types (Gitonga, 2012, G.O.K, 2012. In Kenya, the gender differences in personality have been related to cultural beliefs and socialization factors (Migunde, 2011); however this study examined if gender related difference exist in personality types among the first-year undergraduate Bachelor of Education students of Maseno University, Kenya.

2.1 Relationship Between Personality Types and Career Choice

The Holland Code Career Model matches personality with a vocational environment (Hollandcodes.com 2012; Toomey, Levinson & Palmer, 2009). Holland (1997) argues that people with specific vocational personality types are attracted to activities and occupations associated with those types, and they demonstrate behavioral repertoires, patterns of likes and dislikes, and concordant attitudes and values that support their developing interests.

Therefore a student with personality types of will seek an academic programmes and courses congruent to

their unique types. Disciplines commonly associated with realistic environments are electrical engineering, mechanical engineering and military science. An investigative degree program emphasizes the acquisition of knowledge through investigation and problem solving. Some of the disciplines that are considered investigative are biology, mathematics, sociology, mathematics, sociology, economics, and physics, economics and civil engineering (Gitonga, 2012). The artistic disciplines include English Literature, architecture, speech, Music, and Theatre. The emphasis is on ambiguous, free, and non-systematic activities that involve emotionally expressive interactions with people. Disciplines that are commonly associated with social environments are Education, Political Science, Nursing, Special Education, Philosophy and History. Social degree programs focus on activities that involve mentoring, treating, healing or teaching. The social students feel rewarded for displaying empathy, humanitarianism, sociability and friendliness (Gitonga, 2012). Enterprising degree program will be oriented toward personal or organizational goal attainment through leadership or manipulation. The emphasis is on leadership development. Enterprising disciplines include Business, Journalism, Communication, and Computer science. Lastly, the Conventional Personality Type student will seek conventional degree program like Accounting and Data Processing focuses on the competences associated with the use of numbers or machines.

Several studies have been found personality types to be predictive of students' choice of a degree program as presented by Holland's typology (Porter & Umbach, 2006). Ktoridou, Epaminonda, Arola, Kyprianides ,and Paschalis (2014) measured the compatibility between undergraduate students' personality types and their study major a found a relatively better fit between personality type and major in Enterprising, Investigative and Artistic major students (0.77, 0.88 and 0.90, respectively). Using the first letter on the Holland code the results indicates that in four schools over 50% of the students personality types were found in a corresponding academic environment.

Wilhelm (2012) examined the relationship of Holland's theory of vocational personalities (RIASEC) to Miner's entrepreneurship types (Personal Achiever (PA), Super sales people (SS), Real Manager (RM), Expert Idea Generator (EIG) and Complex Entrepreneurs (CE)). Results showed that Holland's E type and Miner's RM Route are significantly positively related ($r = 0.402$, $p = 0.000$). RM is also significantly positively related to S ($r = 0.278$, $p = 0.01$). S also relates significantly positively with Miner's SS ($r = 0.363$, $p = 0.001$) and RM ($r = 0.278$, $p = 0.01$). Holland's E type relates significantly positively with Miner's composite measure of entrepreneurship, CE, ($r = 0.391$, $p = 0.000$). Holland's S type scores were also significantly positively related with Miner's CE ($r = 0.382$, $p = 0.000$). This study suggests that more entrepreneurs may be drawn from the social and artistic type majors in colleges. This study is significant as it attempts to relate the entrepreneurship and personality psychology fields and discuss the implications for recruitment.

Green (2010) sampled twelve first quarter fashion female students to investigate the perceptions of usefulness using Holland Code theory and MI theory to determine their career niche in the fashion industry. Green (2010) found that all student participants (100%) were able to select careers which reflected their Holland Code. This study is significant since it showed a perfect positive correlation between of personality type and career choice.

Pike (2006) determined vocational preferences and college degree expectations among undergraduate students. 396 females (62.8%) and 235 (37.2%) males participated in the study. The MANCOVA indicated a statistically significant effect for the Holland typology ($F=7.25$; $df=25$, 3505; $p<0.001$) and a statistically significant indication was noted between the Holland typology and degree of congruence ($F2.12$; $df=50$, 4304; $p<0.001$); however, the main effect for the degree of congruence was not statistically significant ($F=1.44$; $df=10$, 1886; $p>0.05$). These findings showed that Science and Mathematics scale, Investigative students showed the highest expectations and were highly congruent with Investigative typology. Pike (2006) conclusion that is significant to this study was that students are likely to select degree majors that reflect their personality type which also reflect objective of this study.

Hogan and Holland (2003) evaluated the links between job performance and personality type by using a socioanalytic theory and meta-analysis to evaluate the links. An examination of 43 studies on the Holland code, the researchers found Realistic occupations represented 66.7%, Conventional 13.4%, Enterprising 11.1%, Social 4.6%, Investigative 3.0%, and Artistic 1.2%. The authors concluded that the actual number of occupations held is representative of the number of articles researched, meaning there were no limitations reflected on the Investigative and Artistic occupations.

Onoyase and Onoyase (2009) investigated the relationship between personality types and career choice of secondary school students in federal government colleges in Nigeria. The researchers used a sample of 616 senior secondary two students who responded to two instruments on personality and career choice. The results showed that there was a significant relationship between Artistic (coefficient value = 0.61; critical r value = 0.29), Social (coefficient value = 0.65; critical r value = 0.20), Enterprising (coefficient value = 0.04; critical r value = 0.22) and Investigative (coefficient value = 0.05; critical r value = 0.22) personality type on one hand and career choice on the other. However, no significant relationships were found between Realistic (coefficient value = 0.15, critical r value = 0.30) and Conventional (coefficient value = 0.57, critical r value = 0.29) personality types and career choice. Similarly in Nigeria, Fred (2012) conducted a study on the relationship between personality characteristics

and vocational choice using Holland's theory. The findings of the study showed that 70% of the population had personality type that was congruent with their career choice.

Gitonga (2012) examined the distribution of personality types in different schools at Kenyatta University, Kenya. This indicates that in four schools over 50% of the students' personality types were found in a corresponding academic environment. They include School of Sciences dominated by investigative types (63%), School of Creative and Performing Arts dominated by Artistic types (57%), School of Education dominated by Social Types (61.9%) and the School of Economics dominated by Conventional types (48.7%). The Chi-square results ($X = 389.753$, $df 25$, $p = .000$), which indicates a significant relationship between personality types and choice of degree program. However, the School of Engineering was dominated by enterprising type (33.9%) instead of the realistic types and school of Business was dominated by Artistic (34.8%) as postulated by Holland. The results imply that the personality types influenced the choice of degree programs at Kenyatta University. The researcher therefore rejected the null hypothesis of no difference and accepted the alternative hypothesis of statistically significant relationship.

Chemeli (2013) tested the hypothesis that was being tested here was that there is no significant relationship between personality type and career aspiration with a sample of 429 participants (223 girls and 206 boys) from 12 secondary schools in Eldoret west district. A survey on the career aspirations of showed that the aspiration with the highest number combined is the Investigative (140;32.6), followed by the Enterprising (92; 21.4%) , Artistic(53;12.4%); Social(53; 12.4%); Conventional (52; 12.1) and the least was Realistic (39; 9.1%). On overall, majority of students (32.6%) aspired for Investigative careers, followed by Enterprising ones (21.4%). Majority of students, 140 out of 429 that were interviewed, had Investigative career aspirations. This is because of the science-oriented curriculum that has forced the students in secondary schools to have such interests.

Migunde (2011), basing her study on Holland codes, grouped the students' career choices into six groups based on RIASEC. The results were analyzed using percentages and the findings showed most preferred careers as Investigative 40%; Enterprising, 25%; Artistic 11%; and lowest in Conventional 7% and Realistic 7%. Migunde (2011) further reported that over 80% males chose realistic careers while females were less than 20%. Over 50% males chose investigative careers. More females chose social career (80%); Conventional careers (60%); and Artistic careers, (70%).

The Government of Kenya (G.O.K) (2007) conducted a study using a random sample of 22 schools to determine career guidance practices in Kenyan high schools. The study adopted Meyer-Briggs Type Indicator (MBTI) to group personality types and job categories to develop an appropriate college course admission model to solve the problem of colleges placing students in college courses not suited for them and the subsequent mismatch between professional occupation and personality interest. The study further showed that the premise for use of personality analysis to diagnose one's natural career is that human performance in a job situation is primarily dependent on one's natural disposition towards certain tasks and environments.

Several studies in Kenya have focused on factors that lead to career choice with no documented studies showing the relationship between personality types and choice of degree program. Whereas G.O.K (2007) adopted type theory using MBTI, this study sought to find a correlation between personality type and career choice adopting trait theory of RIASEC. The G.O.K (2007) used practicing teachers while Migunde (2011) utilized secondary school students, the target population of the present study will be B.Ed students in a public university. Whereas Green (2010) utilized design students while Wilhelm (2012) correlated RIASEC and Miner's Entrepreneur types, the target population of this study while this correlation study was cross-sectionally conducted across first-year B.Ed programmes offered at Maseno University, Kenya .

In summary, the personality types and sample congruent career is presented in table 1.

Table 1: Personality Types and Sample Congruent Careers

Personality Types	Sample Congruent Careers
Realistic	craftsman, policeman, P.E/Fitness trainer, engineering, computer technician, gardener, farmer ,forestry
Investigative	biologist, chemist, historian, researcher, geologist, doctor, actuary, tax expert, mathematician
Artistic	artist, musician, cosmetology actor, dancer, designer, writer, photographer, painter
Social	teacher, clergy, coach, therapist, nurse, counselor, pastor, audiologist, babysitter, social worker, foreign service
Enterprising	manager, producer, lawyer, entrepreneur, marketing executive, principal, public health, salesmen, public relations, catering, insurance, law, politics, communications
Conventional	accountant, banker, editor, office manager, librarian, reporter, actuary, administrator, secretary

Source: Hollandcodes.com, 2010

3. Research Methodology

Correlational and descriptive survey research designs were adopted for this study. According to Asika (2002), Orodho, (2009; 2012), Fraenkel & Wallen, (2008) in such a design, research inferences about relationships among variables are made systematically and empirically without direct control or manipulation of independent variables, because their manifestations have already occurred and because they are inherently non-manipulable. Ex-post facto design has been supported in educational research, which does not lead to experimental work (Fraenkel & Wallen, 2008), (Mugenda, 2008). The study also adopted descriptive survey method for this research. Such a research describes a situation, individual or object of study, to present evaluations in line with standards and to reveal relationships between phenomena (Mugenda, 2011; Cepni, 2009). According to Cherry (2013), descriptive surveys are fast, cheap, easy and more flexible.

3.1 Area of Study

Maseno University in Kenya was conveniently selected as the study area. The choice of Maseno University was influenced by the typical snowballing nature of B.Ed training programmes in public universities in Kenya. In addition Maseno University has a long history of offering unique courses like Fine art and Music, which according to Holland fall distinctly under artistic fields. Maseno University was purposively selected for the study because it also offers a five undergraduate B.Ed programmes with a unique Information Technology component not offered in any other public universities and subject options hence high on spectrum of personality types.

3.2 Study Population

The target population in this study included all the 490 (353 males and 137 females) first-year undergraduate students at the Maseno University main campus during the 2011/2012 academic year. First-year B.Ed. student were selected for this study because it forms the one bipolar end of university degree choice career turbulence of entry-change verses exit-career change. First-year students have also not stabilized in the degree program and face unexpected career turbulence hence are likely to change or drop out. Universities also tend to periodically restructure their programmes, courses and training designs normally tailored for the needs incoming first year students. First-year students may be unaware of these types of personality which apparently remain untapped or assumed in Maseno university B.Ed. programmes training and research. Lastly, B.Ed. students are a representative in all disciplines be it sciences, humanities or languages. The females were 27.96% of the total student population and males were 72.04%. This result indicates that male students are more among the first year students at Maseno University in all the B.Ed. programmes.

3.3 Sample Size and Sampling Technique

First, a sample size of 220 B.Ed students was obtained by using a formula developed by Israel (2013). The sample size ($n = 220$) is acceptable as Gay, Mills and Aurasian (2007) recommends a minimum sample size of 30 for correlation study in establishing the existence or non-existence of a relationship. Proportional stratified sampling was then used to ensure that students from the five cohorts or subgroups under the School of Education are adequately selected and represented in the sample in proportion to their number in the population hence maximized the likelihood of representativeness (Kombo & Tromp, 2006). The sample size is presented in table 2;

Table 2: Sample Size

Programme	JAB			SPECIAL			TOTAL	SAMPLE SIZE
	M	F	T	M	F	T		
B.Ed – Arts	162	42	204	37	24	61	265	$265/490 \times 220 = 119$
B.Ed –Science	89	23	112	11	4	17	129	$129/490 \times 220 = 58$
B.Ed -ECDE	17	13	30	0	0	0	26	$26/490 \times 220 = 12$
B.Ed -Special	17	8	26	9	7	16	42	$42/490 \times 220 = 19$
B.Ed -French	4	6	10	7	10	17	27	$27/490 \times 220 = 12$
TOTAL	289	92	381	64	45	109	490	220

Simple stratified random sampling technique was then be used to select respondents from each cohort to take part in the research. The starting point or respondent was determined randomly and samples drawn until the desired sample size was attained. This was also because it was practically impossible to get all the respondents in a single assembly. The choice of the number of respondents in each cohort sample was based on gender hence by quota sampling, the higher the number in the cohort the higher the number selected relative to the cohort sample size.

3.4 Instrumentation

This study employed a modified personality type questionnaire based on John Holland personality types to place students' in Holland's personality types. In this study, a Questionnaire: based on a five-level Likert scale (*Describe me completely = 1; Describe me fairly well = 2; Unsure =3,Doesn't describe me very well = 4 and Doesn't describe me at all=5*) was used to gather the qualitative data. The items were not serialized to minimize on response

biasness and spontaneity. The questionnaires were also anonymous and confidential.

3.5 Reliability and Validity of Instruments

3.5.1 Reliability

For the reliability and to remove language ambiguity the questionnaire was personally distributed among forty nine (10%) of the study population) subjects as a pilot run. The pilot study was conducted among randomly selected 49 first-year undergraduate students in the B.Ed programmes of Maseno University. Data was analyzed through SPSS–16. Pearson Product Moment correlation was used to determine reliability at alpha level 0.05. The resulting value obtained was a reliability index of 0.84. Test-retest reliabilities for most SDS(R) within the range of 0.92 as found by (Holland, Fritzsche & Powell, 1994) and 0.8 by (Orodho, (2009) for SDS (R). This means that the instruments were reliable enough to be used answer the research questions in the actual study.

3.5.2 Validity

To ensure face and content validity of the questionnaires and interview schedule, the research instruments were screened for content and language appropriateness by three psychometric experts from the Department of Educational Psychology, Maseno University and their input included in the final draft of the instruments.

3.6 Procedure for Data Collection

A research permit was obtained from Maseno University Ethics Review Committee (MUERC) to facilitate conducting of the study within Maseno University. The researcher got introduced to various lecturers in-charge of various course units. The researcher contacted the lecturers and made appointments to administer the questionnaires during a lecture session.

Data was collected cross-sectionally from each cohort sample on a weekly timeframe in the first quarter of the second semester over a period of one month. Subjects who were not willing to complete the questionnaire were not compelled to do so. The questionnaires were administered by visiting the B.Ed programme's two-hour common unit specified lectures and after explaining the purpose of the study, confirming voluntary participation and assuring all respondents of confidentiality, distributed the questionnaire to the respondents in the lecture hall. The students were given few minutes to fill and return the questionnaire and took an average of 30-35 minutes to complete the questionnaire. This ensured immediate high rate of return and low cost factor. On-the-spot administration of questionnaire also ensured non-interference from other variables like response assistance and gave the researcher an opportunity to explain the study.

3.7 Methods of Data Analysis

The qualitative and quantitative data to be collected from the study was analyzed at two levels. The raw data generated using the questionnaire was coded and entered into a Statistical Package for Social Sciences (SPSS) computer program. The data was analyzed according to the objectives posted for the study.

First, descriptive data from closed ended items in the questionnaire like gender, study category, career choice, personality type, were subjected to computation of descriptive statistics such as frequency counts and percentages; and central tendency measure of mode. The descriptive data was further reported using bar graphs and pie charts. Similarly the significant difference in gender and personality type was established using mean gender differences across personality types. The SPSS program was used for this analysis.

Secondly, cross tabulation with Chi-square test (χ^2) was employed to examine the presence of any relationship between pair of variables namely gender and career choice; personality types, gender and career choice. As a non-parametric test, chi-square is used to determine if the categorical data in the objectives shows dependency or the two classifications are independent (Fraenkel & Wallen, 2008). This was further subjected to Likelihood ratio test to determine the degree or level of the relationships between two variables. Chi-square was selected because it makes no assumption such as normality about distribution of population. Further Chi-square test is suitable for use with categorical data to establish if differences exist between groups of participants. The two analytical techniques reinforced each other and enabled the researcher to explain findings obtained from the questionnaire.

3.8 Logistical and Ethical considerations.

The researcher obtained the required licences and letters of authorization to carry out the study from Maseno University. The lecturers were contacted to allow the researcher to gather data during their lecture sessions. Volunteer research assistants helped the researcher to collect, code and analyze the data. Students who took part in this study did so voluntarily and were also free to withdraw from the study if they so wished. . The researcher first briefed the subjects on the purpose of the study, and assured all respondents of confidentiality. To ensure confidentiality was maintained, the researcher assured the participants that the purpose for data collected was purely for this study and the data will not be used for any other purpose.

4. Results and Discussions

4.1 Personality Types across Gender among the First-Year Undergraduate Students in the Bachelor of Education Degree Programmes of Maseno University.

To determine the personality types among male and female first-year students of Maseno University, data was grouped and analyzed according to the six Holland's Personality Codes, RIASEC. The personality types, frequency counts and percentages, are presented in table 3.

Table 3: Personality Types among male and female B.Ed Students

Personality Type	Responses by Gender					
	Males		Females		Total	
	N	%	N	%	N	%
Realistic	104	63.4	60	36.6	44	26.8
Investigative	112	60.9	72	39.1	40	21.8
Artistic	88	55	72	45	16	10
Social	117	59.4	80	40.6	37	18.8
Enterprising	101	55.8	80	44.2	21	11.6
Conventional	112	59.6	76	40.4	36	19.2

The personality type with the highest number of the respondents was social type (n=197: 89.5%) followed by conventional (85.5%). The personality type with the least number of Respondents is artistic (160; 72.7%). Responses in each type by gender as depicted in table 11 above indicate Investigative type ,Males 60.9% and females 39.1%; Social type was most chosen by males (59.4%) and least chosen by females (40.6%). 45% females and 55% males chose Artistic type. The Realistic type was chosen by more males (63.4%) compared females (36.6%). Over 55% males chose Realistic careers while females were less than 45%. Over 50% males chose Investigative careers. More (45%) females chose Social type while more males were realistic type (63.4%); and Investigative type, (60.9%). These results imply the gender of the students at Maseno University is important in Holland's typology classification. Some participants had assessment indicating more than one Holland code result; this is a reflection of overlapping personality orientations.

Several studies have reported that there more males in realistic and investigative personality types and more females in social types. EUROSTAT, (2004). Abdullah, et al (2009) reported that 70% males choose Investigative and Realistic type in public universities in Malaysia, Chemeli (2013) Gitonga (2012 and Migunde (2011) all state that gender disparities in realistic and investigative fields associated with males and social fields associated with females is still evident. These results are consistent with EUROSTAT, (2004) results which show that in Europe and other industrialized countries, the number of women in engineering and other science fields has been increasing steadily, but still falls far below the males. Chemeli (2013) attributed the existence of majority of student being Investigative may be due to the structured curriculum (8-4-4) that has accustomed the students into doing things in a specific manner, for example, the way the teachers approach the teaching in giving examples followed by exercises for practice in mathematics, or demonstration of experiments by the teacher in the chemistry laboratory, followed by group work of the students performing the practices in the steps of the teacher. The distribution of personality types by gender is shown in figure 1;

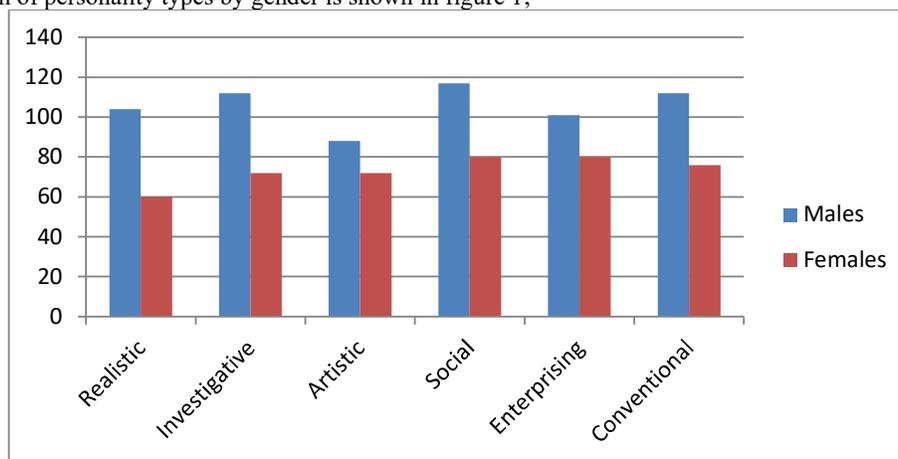


Figure 1: Personality Types among Males and Female B.Ed first-year students

The researcher further employed chi-square test to determine any significant gender differences in personality types. Table 4 displays chi-square results which suggest a significant difference ($df = 35, p = .002$) in gender and Enterprising, gender and realistic ($df = 33, p = .031$), gender and artistic ($df = 34, p = .011$), gender and social

($df = 33, p = .035$) and conventional ($df = 33, p = .036$) personality types. The study found no significant difference ($df = 31, p = .078$) in gender and investigative personality type only.

Table 4. Chi-square results for relationship between Gender and Personality Types

Personality Types	Gender	N	%	Value	Df	Asymp. Sig. (2-sided)
Realistic	M			49.660 ^a	33	.031
	F					
Investigative	M			42.720 ^a	31	.078
	F					
Artistic	M			55.797 ^a	34	.011
	F					
Social	M			49.094 ^a	33	.035
	F					
Enterprising	M			63.950 ^a	35	.002
	F					
Conventional	M			48.995 ^a	33	.036
	F					

* Indicant on the significant level ($\alpha = 0.05$).

The findings of this study concur with the findings of Woods and Hampson (2010) for Enterprising was unexpected: males ($\beta = .16, t = 2.96, p < 0.05$), but not women ($\beta = -.11, t = -1.83, p = 0.07$), had higher Enterprising scores. Gitonga (2012) reported a significant relationship between gender and personality types and personality type ($X = 34.962, df = 5, p = .000$). Results posted by Turner et al (2008) showed gender differences with boys having significantly greater Realistic ($F = 36.64, p < .001$) and Investigative ($F = 6.80, p < .011$) type scores, and girls having significantly greater Artistic ($F = 9.74, p < .003$) personality type scores suggesting different pathways to the development of these types for boys and girls. These results imply that gender play a key role in the choice of B.Ed-based subjects choices with majority of females choosing language field. The study confirms the objective of the Sessional Paper No.1 of 2005 which targeted an increase in the proportion of all students studying science related courses in Kenya to 50% with at least one third being women by the year 2010.

4.2. The Level of Relationship Between Personality Types and Career Choice in the Bachelor Of Education Degree Programmes.

First, the researcher examined the distribution of personality types within the B.Ed programmes. The results of the study showing distribution of personality types within the B.Ed programmes as presented ion table 5.

Table 5: Distribution of Personality Types Within B.Ed Degree Programmes Among First-Year Students

Personality Type	B.Ed-Arts		B.Ed Science		B.Ed-SNE		B.Ed French		B.Ed ECDE	
	N	%	n	%	N	%	n	%	n	%
Realistic	84	51.2	49	30	17	10.4	4	2.4	10	6.1
Investigative	101	54.9	52	28.3	16	8.7	5	2.7	10	5.4
Artistic	89	55.6	42	26.2	16	10	6	3.8	7	4.4
Social	108	54.8	53	26.9	16	8.1	10	5.1	10	5.1
Enterprising	102	56.4	44	24.3	16	8.8	8	4.4	11	6.1
Conventional	102	54.3	51	27.1	17	9.0	8	4.3	10	5.3

The data in table 15 show the distribution of personality types within the B.Ed programmes at Maseno University. This indicates that in five B.Ed programmes, over 50% of the students' personality types were found in each programme except for B.Ed- French which recorded low number of respondents in realistic (n=4; 2.4%) and Investigative types (n=5; 2.7%). The B.Ed programme is dominated by social type (89.5%). In B.Ed-arts, social type (n=108; 54.6%) recorded highest number of respondents while realistic type recorded the lowest (n=84; 51.2%). B.Ed-Science is dominated by investigative types (n=58;28.3%) and social type (n=53; 26.9%). The B.Ed-Special Needs Education is highly dominated by all RIASEC codes with the highest number of respondents for realistic (n=17; 10.4%), Conventional (n=17; 9.0%), Investigative type (n=16; 8.7%), social (n= 16; 8.1%), and enterprising (n=16; 8.8%). More respondents (n=11; 6.1%) were recorded in B.Ed-ECDE with the lowest being the artistic types (n=7; 4.4%). B.Ed-French is dominated by Social type (n=10; 5.1%). This programme reported

the lowest number of respondents in realistic (n=4; 2.4%) and investigative type (n=5; 2.7%).

The results imply that there is a relationship between personality types and career choice of degree programs at Maseno University. Several studies have supported this finding revealing that students will seek academic environments that match their personality type and avoid environment which is which does match their interest (Smart, Feldman & Essington, 2000, Porter & Umbach, 2006). For example, Gitonga (2012) reported that school of Education was dominated by social type (61.9%) while the science disciplines were dominated by investigative type (63%). Similarly a study by Fred (2012) showed that 70% of the population had personality type that was congruent with their career choice. Ktoridou et al (2014) reported 50% of the student's personality types were found in a corresponding academic environment which includes School of Sciences dominated by Investigative types (63%), School of Creative and Performing Arts dominated by Artistic types (57%), School of Education dominated by Social Types (61.9%) and the School of Economics dominated by Conventional types (48.7%). These results show that the social type represented the largest type (61.9%).

To examine if any significant relationship exist between personality types and career choice in the B.Ed programmes, the researcher employed non parametric tests, chi-square and likelihood ratio to determine the level of relationship between personality types and Career Choice. Results of Chi-Square and Likelihood Ratio Test are presented in table 6.

Table 6: Results of Chi-Square and Likelihood Ratio Test On Relationship Between Personality Types and Career Choice

Personality Type	B.Ed Programme	Test	Value	Df	Asymp. Sig. (2-sided)
Realistic	B.Ed- Arts	Pearson Chi-Square	264.357 ^a	132	.000
	B.Ed- Science				
	B.Ed – SNE	Likelihood Ratio	194.538	132	.000
	B.Ed – ECDE				
Investigative	B.Ed- Arts	Pearson Chi-Square	266.447 ^a	124	.000
	B.Ed- Science				
	B.Ed – SNE	Likelihood Ratio	205.084	124	.000
	B.Ed – ECDE				
Artistic	B.Ed- Arts	Pearson Chi-Square	309.964 ^a	136	.000
	B.Ed- Science				
	B.Ed – SNE	Likelihood Ratio	192.431	136	.001
	B.Ed – ECDE				
Social	B.Ed- Arts	Pearson Chi-Square	231.426 ^a	136	.000
	B.Ed- Science				
	B.Ed – SNE	Likelihood Ratio	184.016	136	.004
	B.Ed – ECDE				
Enterprising	B.Ed- Arts	Pearson Chi-Square	281.470 ^a	140	.000
	B.Ed- Science				
	B.Ed – SNE	Likelihood Ratio	194.823	140	.002
	B.Ed – ECDE				
Conventional	B.Ed- Arts	Pearson Chi-Square	248.098 ^a	132	.000
	B.Ed- Science				
	B.Ed – SNE	Likelihood Ratio	181.687	132	.003
	B.Ed – ECDE				
	B.Ed – French				

* Indicant on the significant level (p= 0.05)

Results the chi square test show that there is a significant relationship ($p < .05$) between personality types and B.Ed programmes which indicates that there are differences in percentages of personality types found in the B.Ed programmes. The difference in the distribution of personality types of in the B.Ed programmes is linked to the nature of the subjects offered in the programmes. These results of the likelihood ratio test presented in table 16 above show very high ($p < .05$) level of relationship between personality types and career choice degree in the B.Ed programmes. This high relationship is attributed to the predetermined criteria of subject mean scores and combinations, training activities strategies and expected course outcomes specific to each degree programmes. The relatedness of preferred activities, patterns of attitudes, interests and competences of each type were expressed

in the results generated (Gitonga, Orodho & Wangeri, 2013). These results imply students seek to be enrolled in a degree program where their interests will be fulfilled as they develop competencies. Most studies (Porter & Umbach, 2006; Unease & Unease, 2009; Migunde, 2011, Gitonga, 2012; Gitonga, Orodho & Wangeri, 2013) carried out in the world found high correlation between personality type and academic career choice. For example, Green (2010) found that all student participants (100%) were able to select careers which reflected their Holland Code. Porter & Umbach (2006) found that the choice of an academic major is influenced by a student's pattern of interests. They concluded that assisting student's make informed career decisions on the selection of degree program promotes greater student satisfaction and success in their undergraduate experience. Gitonga (2012) reported significant relationship ($X = 389.753$, $df 25$, $p = .000$), between personality types and choice of degree program. However the findings of this study are different from the findings reported by Onoyase and Onoyase (2009) which showed no significant relationships were found between Realistic (coefficient value = 0.15, critical r value = 0.30) and Conventional (coefficient value = 0.57, critical r value = 0.29) personality types and career choice.

5. Summary of Findings, Conclusion and Recommendations

The study findings were summarized as follows;

5.1.1 Personality Types Across Gender Among The First-Year Undergraduate Students In The Bachelor Of Education Degree Programmes Of Maseno University.

The personality type with the highest number of the respondents was social type ($n=197$: 89.5%) followed by conventional (85.5%). The personality type with the least number of Respondents is artistic (160; 72.7%). Gender was found to be strongly correlated to different personality types ($X = 34.962$, $df= 5$, $p= .000$) with more males classified as realistic and investigative and more female's social types. Similarly, in classification of personality types shows that Investigative type ,Males 60.9% and females 39.1%; Social type was most chosen by males (59.4%) and least chosen by females (40.6%). 45% females and 55% males chose Artistic type. The Realistic type was chosen by more males (63.4%) compared females (36.6%). Over 55% males chose Realistic careers while females were less than 45%. Over 50% males chose Investigative careers. More (45%) females chose Social type while more males were realistic type (63.4%); and Investigative type, (60.9%). There were more males in realistic and investigative types while the females were more in the social fields hence the significant difference ($df = 35$, $p = .002$) in gender and Enterprising, gender and realistic ($df = 33$, $p = .031$), gender and artistic ($df = 34$, $p = .011$), gender and social ($df = 33$, $p = .035$) and conventional ($df = 33$, $p = .036$) personality types.

5.1.2 Level Of Relationship Between Personality Types And Career Choice In The Bachelor Of Education Degree Programmes.

Over 50% of the students' personality types were found in each programme except for B.Ed- French which recorded low number of respondents in realistic ($n=4$; 2.4%) and Investigative types ($n=5$; 2.7%). The B.Ed. programmes are dominated by social type (89.5%). In B.Ed-arts, social type ($n=108$; 54.6%) recorded highest number of respondents while realistic type recorded the lowest ($n=84$; 51.2%). B.Ed-Science is dominated by investigative types ($n=58$; 28.3%) and social type ($n=53$; 26.9%).

The B.Ed-Special Needs Education is highly dominated by all RIASEC codes with the highest number of respondents for realistic ($n=17$; 10.4%), Conventional ($n=17$; 9.0%), Investigative type ($n=16$; 8.7%), social ($n= 16$; 8.1%), and enterprising ($n=16$; 8.8%). More respondents ($n=11$; 6.1%) were recorded in B.Ed-ECDE with the lowest being the artistic types ($n=7$; 4.4%). B.Ed-French is dominated by Social type ($n=10$; 5.1%). This programme reported the lowest number of respondents in realistic ($n=4$; 2.4%) and investigative type ($n=5$; 2.7%).

Results the chi square test show that there is a significant relationship ($p < .05$) between personality types and B.Ed programmes. These results of the likelihood ratio test presented in table 16 above show very high ($p < .05$) level of relationship between personality types and career choice degree in the B.Ed programmes.

5.2 Conclusion

Based on the findings of the study, the following conclusions were made

5.2.1. Personality Types Across Gender Among The First-Year Undergraduate Students In The Bachelor Of Education Degree Programmes Of Maseno University.

The study concluded that there is a strong relationship between gender and personality types with more males classified as realistic and investigative and more female's social types. The study also concluded that there is significant difference in gender and Enterprising, gender and realistic gender and artistic gender and social and conventional (personality types). However, the author concludes that the investigative type is the most dominant type by both males and females as the study found no significant difference in gender and investigative personality type only.

5.2.2 Level Of Relationship Between Personality Types And Career Choice In The Bachelor Of Education Degree Programmes

There is very high level of relationship between personality types and career choice degree in the B.Ed

programmes. The study concluded that there is a significant relationship between personality types and B.Ed programmes linked to the nature of the subjects offered in the programmes. and the predetermined criteria of subject mean scores and combinations.

5.3 Recommendations

The above implications led to the following recommendations based on the objectives of the study to Universities, policy makers and researchers.

5.3.1 General Recommendation

- i. Students should seek career choices in universities that they possess liking, talent or passion for. Similarly, students should be provided with opportunities within career training programmes which will nurture their personality interests.

5.3.2 Recommendation to universities

- i. The School of Education at Maseno University is encouraged to design their courses and teaching methodologies in accordance with the dominant personality types among their students. In particular, the university is encouraged to give more attention to the artistic personality type.

5.3.3 Recommendations for the Policy makers

- ii. The Ministry of Education in Kenya has repeatedly indicated the need to train career counselors who will be used in institutionalizing the programs in learning institutions. The assumption is that university students have already chosen a career and the task of nurturing these careers rests with the academic departments which do more teaching than career guidance. Since Holland's theory has gained global attention in the practice of career guidance and training among many countries, it is beneficial to examine the implication of these career models on career guidance using a large population to inform career guidance practice. This will be in support of the numerous attempts made by Ministry of Education in Kenya seeking to institutionalize the provision of career guidance in high schools, colleges and universities as shown by several educational commissions as cited by G.O.K(2012)

5.3.4 Recommendations for Further Research

- i. The study recommends that the need to investigate factors at the university environment which influences the development of female and male Holland personality types.
- ii. Since the findings of this study came from one large public university whose population is largely black, it's recommended that the study be replicated with a large number of participants attending a variety of private and public universities and constituent colleges with diversity of nationalities, racial and ethnic groups.

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