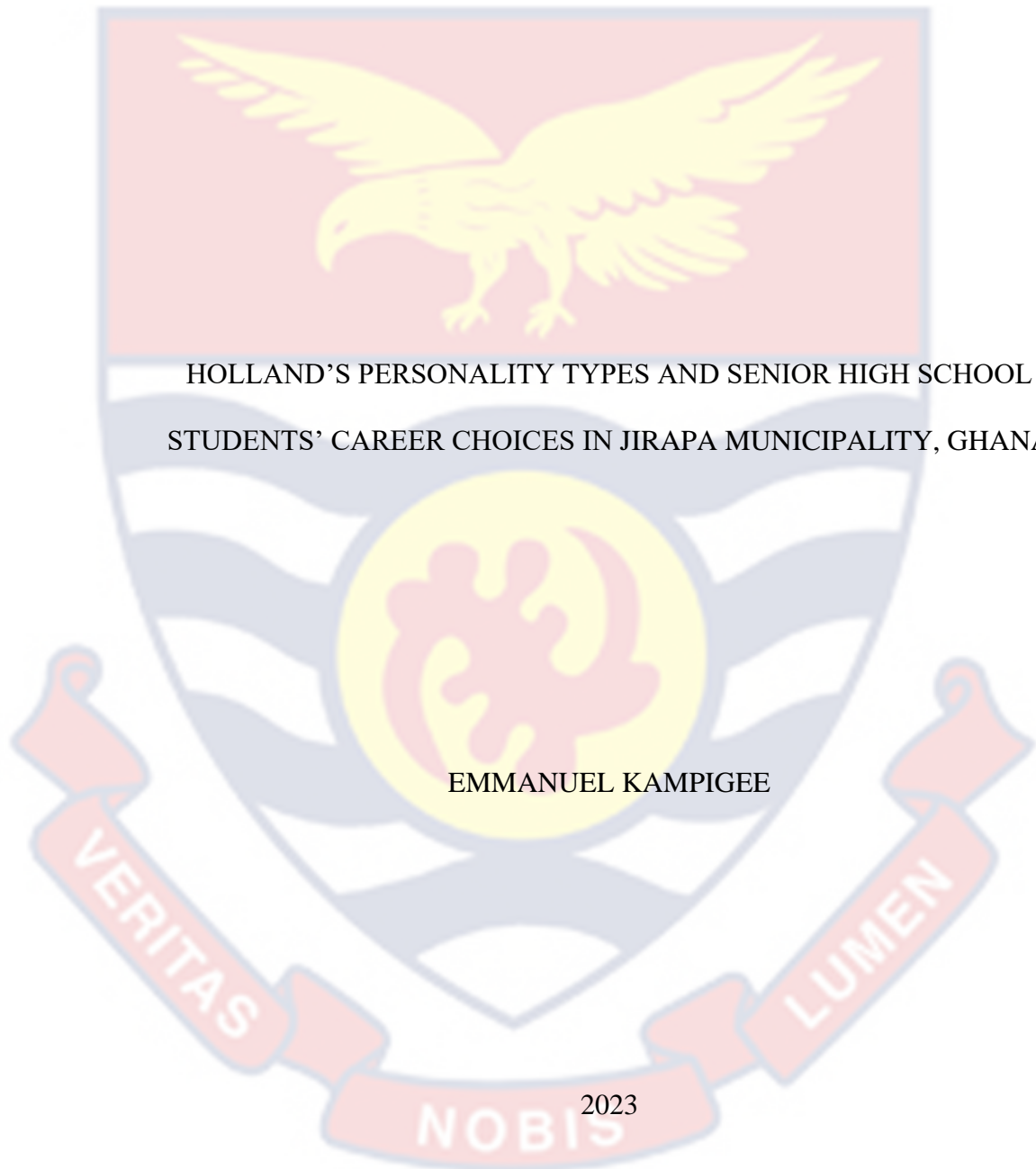


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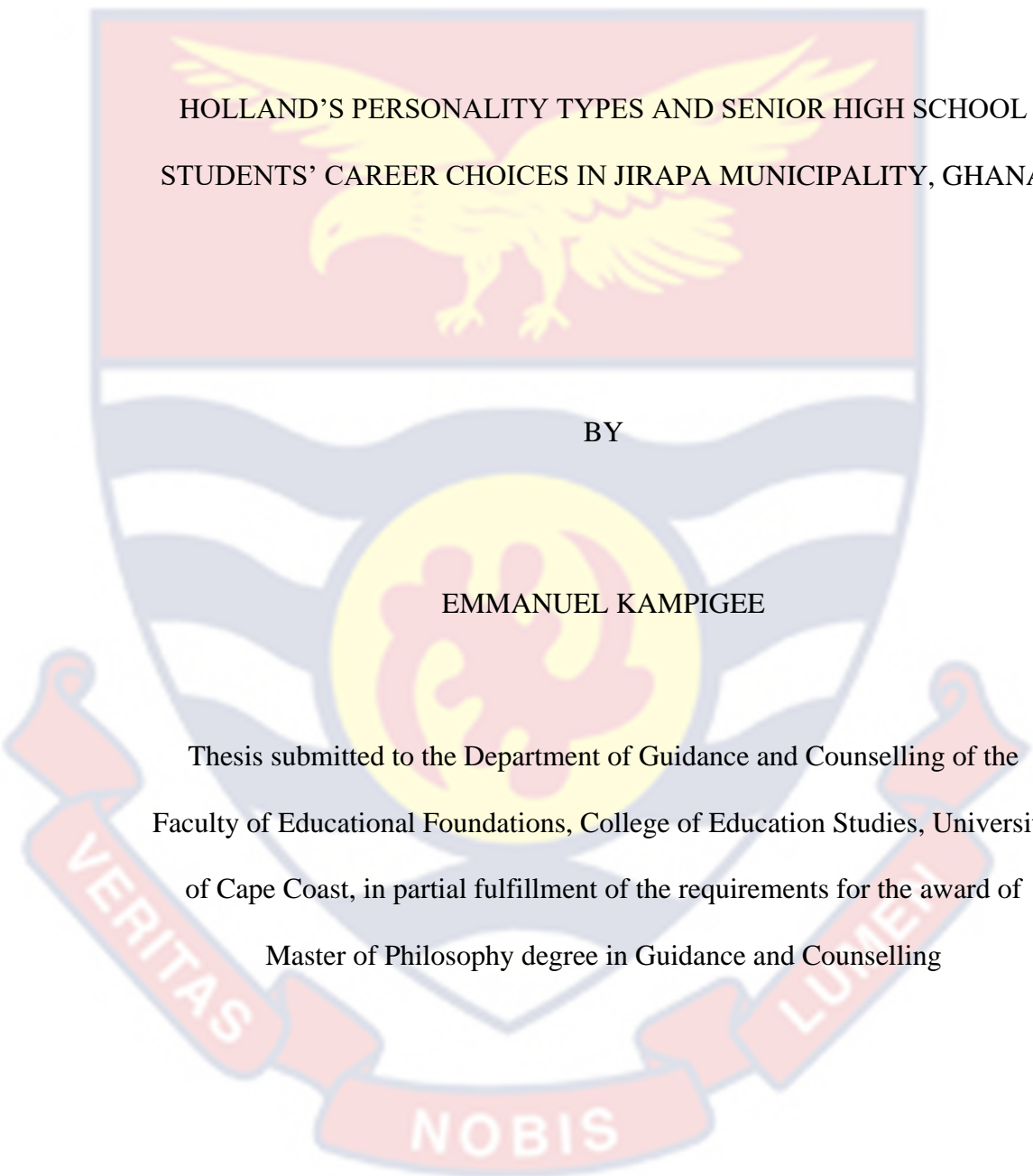


HOLLAND'S PERSONALITY TYPES AND SENIOR HIGH SCHOOL
STUDENTS' CAREER CHOICES IN JIRAPA MUNICIPALITY, GHANA

EMMANUEL KAMPIGEE

2023

UNIVERSITY OF CAPE COAST



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BY

EMMANUEL KAMPIGEE

Thesis submitted to the Department of Guidance and Counselling of the
Faculty of Educational Foundations, College of Education Studies, University
of Cape Coast, in partial fulfillment of the requirements for the award of
Master of Philosophy degree in Guidance and Counselling

JULY 2023

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: Date:

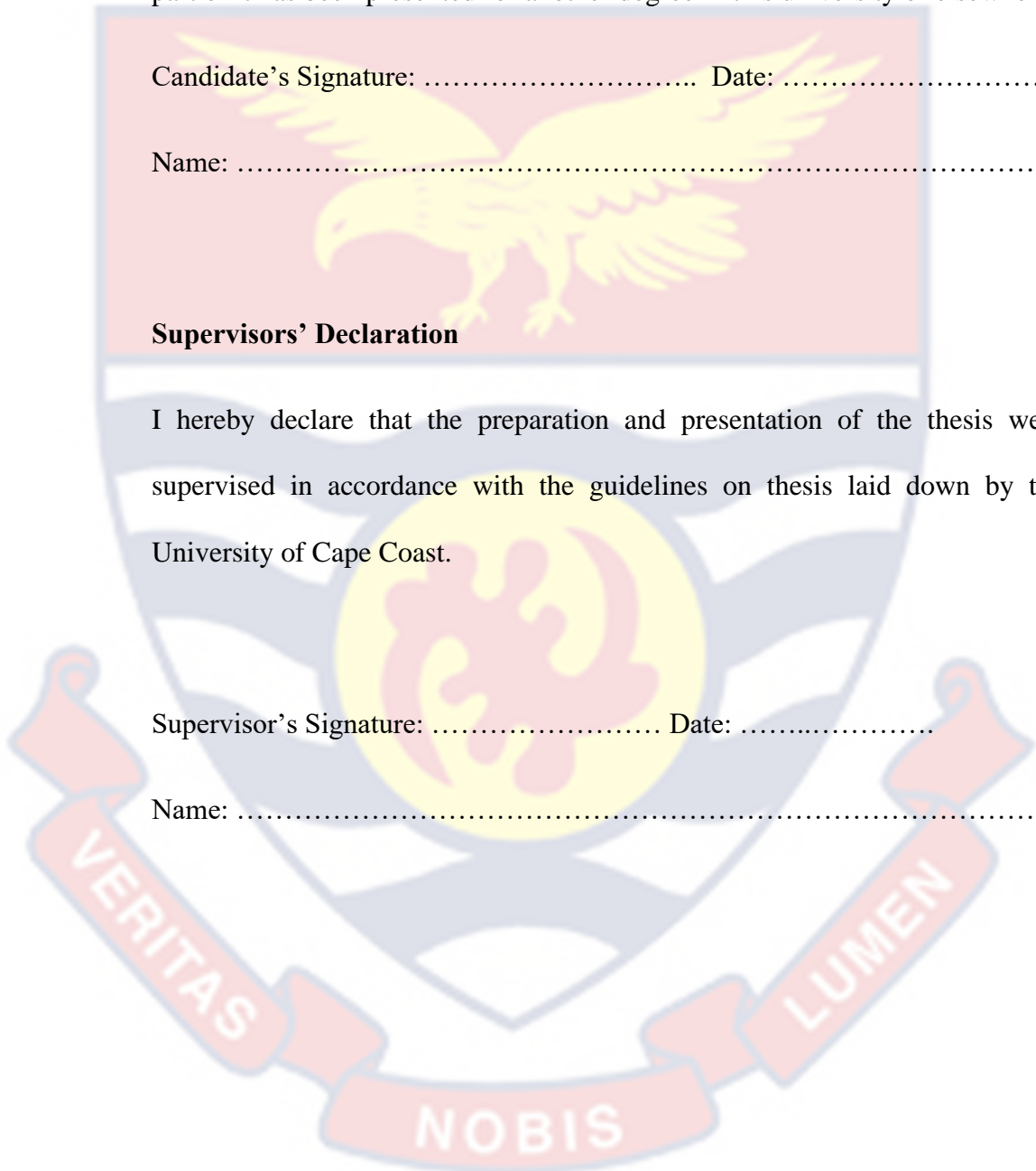
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Supervisors' Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on thesis laid down by the University of Cape Coast.

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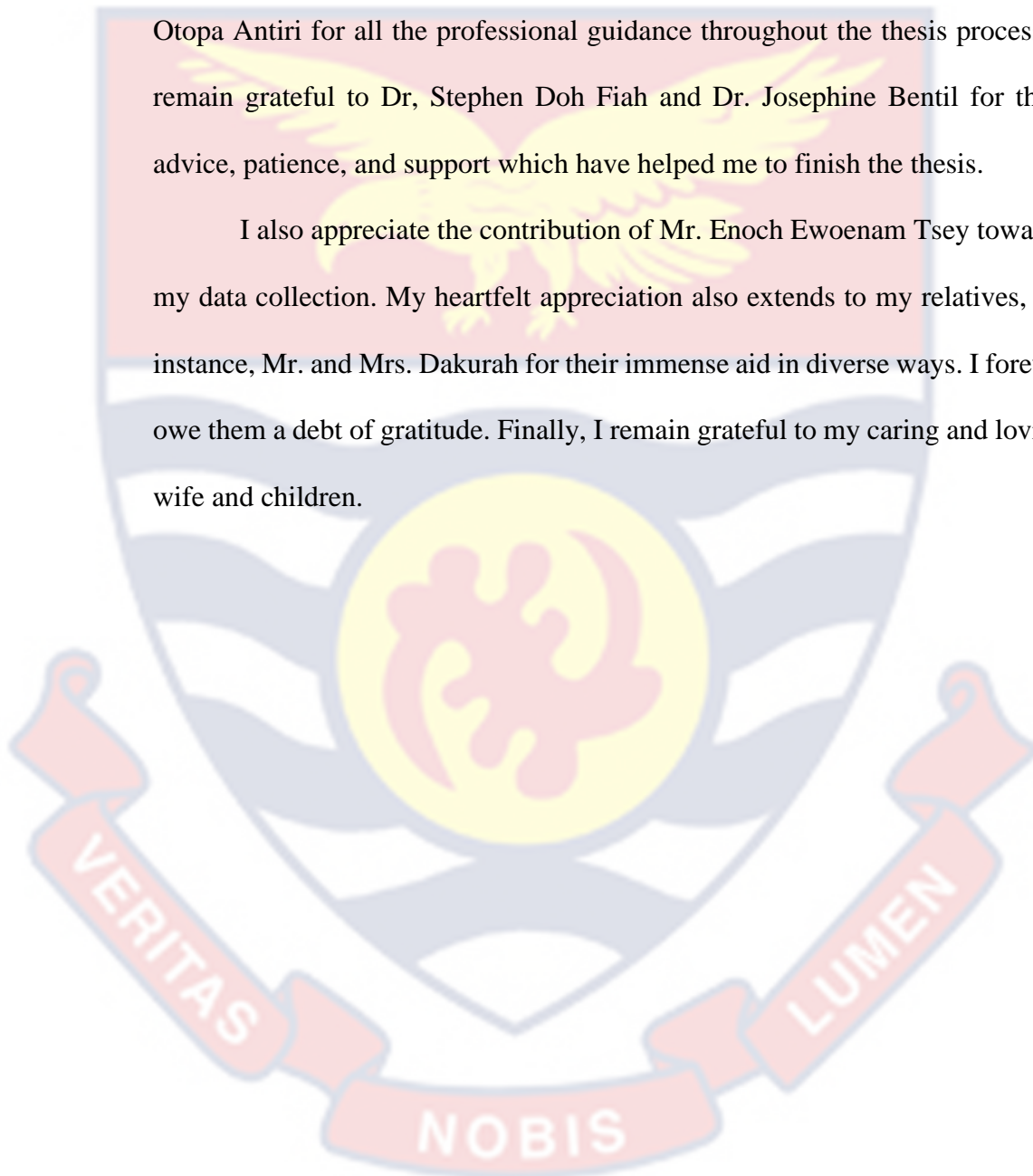
ABSTRACT

This study investigated the relationship between Holland's Personality Types and Senior High School (SHS) students' career choices in the Jirapa Municipality. A descriptive cross-sectional survey design and multi-stage sampling method were used. With a target population comprising all senior high school students in the Jirapa Municipality, a sample of 333 SHS students was obtained through a questionnaire. Means and standard deviations, multivariate regression and MANOVA were used to analyse the data. The study found that family members had a significant role in shaping career choices of SHS students in Jirapa Municipality, while career guidance programmes had comparatively lesser impact. Additionally, Holland's personality types had positive relationship with students' career choices in the Jirapa Municipality. The study also found significant differences in personality types and career choices on the basis of gender, programme of study, and religious affiliation of the students in the Jirapa Municipality. In conclusion, this study provides valuable insight into the factors determining SHS students' career choices in Jirapa Municipality, Ghana. As family influence plays a crucial role, parents should be made aware of the potential impact their decisions can have on their children's future. Furthermore, the study emphasised the need to tailor career guidance programmes to the specific personality types of students. In light of the findings, this study recommended that future research should focus on exploring the reasons behind the family influence and the significance of tailoring guidance programmes to individual personalities.

ACKNOWLEDGEMENTS

The creation of this work and seeing it through to completion would not have been feasible without the knowledgeable advice and direction of a few pivotal people. My sincere gratitude goes to my supervisor, Rev. Dr. Kwasi Otopa Antiri for all the professional guidance throughout the thesis process. I remain grateful to Dr, Stephen Doh Fiah and Dr. Josephine Bentil for their advice, patience, and support which have helped me to finish the thesis.

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DEDICATION

To my wife and children



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CHAPTER ONE

INTRODUCTION

The search for a job requires career planning to enable the job seeker to make a fitting career choice. Educational reforms in 2014 expect senior high school students to have some skills that can help them to select careers that will aid them reach their ambitions. The current research addressed Holland's Personality Types and career choices among SHS students in the Jirapa Municipality of Ghana.

Background to the Study

Education is one of the most important factors in determining the level of progress that may be made in any nation or society. Education among other things empowers people to live more-healthy lives and attain more productive livelihoods (Ghana's Sustainable Development Goal 4). Generally, it is believed that the basis for any true development must commence with the development of human resources. Every nation, therefore, has the primary goal to give education to its citizens on their abilities and knowledge to realistically plan for their future within the world of work.

In Ghana, Sustainable Development Goal eight (8), (SDG-8) which seeks to provide decent work and economic growth, mandates policymakers to make the transition from education to decent jobs easier by investing in education and training of the youth with skills that will match the labour market demands (Ghana's SDG- 8). To accomplish this goal, the general public and, more specifically, young people need to be directed toward decisions that will enable them to enter the workforce with the knowledge and capabilities required for success. One of the decisions that people should be guided through the process

of making is their career choice, which is the process of determining which career route to follow.

Many academics have carved out their professions in a variety of different methods. According to Oladede (2007), a career is "a chosen goal, the job one does throughout one's life, and an individual's profession." It may also be seen as the progression of significant roles that a person has held during their lifetime. For instance, if a person decides to live his or her whole life as a teacher, the person's career is teaching. If, however, the person teaches and does politics either concurrently or consecutively, then the person's career is teaching and politicking. Arnold as cited by Otuei (2017) maintained that the progression of employment-related jobs, activities, tasks, and experiences that a person encounters throughout their lifetime is the definition of a career. As per Holland's (1990) theory, a person's choice of vocation is a "lifetime assignment" that determines the course of his or her life. Indicatively, one's ability to live well and provide the needs of oneself and others in society all depend on career.

The importance of a career cannot be underrated since through it the individual can provide the needs of life such as what to wear, what to eat, safety, as well as several higher-level needs such as that which belong to self-actualization (Maslow, 1943). Also, having a job gives one a feeling of meaning and purpose, self-fulfillment and progress in the life of the career holder (Baruch, 2004). One's work would not benefit him/her and the immediate family alone but the society at large. When an individual has a payable career, he or she can make an impact on the nation's progress through the payment of income tax and other charity work.

Super's Stages of Career Development buttress the fact that career decision is important at all levels of development. Adinkrah and Ayarkwa (2020), in their study, concluded that the youth are more than excited to go into the world of work but they remain hopping from one job to another because they are aimless in making a fitting career choice. Meanwhile, career choice as suggested by Holland (1990) and Bedu-Addo (2009) should reflect the career seeker's personality. This is to say that if an individual's choice of an occupation is congruent with their skills, likes and lifestyle, they tend to be full of happiness and achievement in that choice of career. Bedu-Addo underlined that even if it is accurate that the vision cannot be foreseen with a high degree of precision, it is also true that the tomorrow cannot be disregarded. On the other hand, career decision-making has become a significant challenge among the youth, particularly students. The lack of guiding structures and support systems for career choices has led to unguided career choices with dire consequences. In a study conducted in India by Kumar and Kumar (2018) it is found that nearly 80 percent of students were unable to make informed career decisions. This has resulted in the underutilization of skills and a mismatch between job opportunities and the available workforce.

The decision that an individual makes regarding their chosen line of work is influenced by a variety of variables. According to Abdullahi and Bukar (2000), factors such as ambition, monetary motive, and other individual needs do play a role in the selection of a vocation. On the flip side, an individual's employment choice is impacted by their mom and dad, social circles, surroundings, and family, in addition to laws implemented by the state (Myburgh, 2005). Theories of career development are components that have roles in the selection of a

profession e.g. the Big Five Personality Theory of Goldberg, Anne Roe's Developmental Theory, Decision-Making Theory by Krumboltz, Mitchell and Gellat, Trait and Factor Theory by Frank Parson and associates and Holland's Theory of Career Choice.

The SHS system in Ghana aims at providing more education to eligible junior high school students. According to the 2002 President's Committee Report on the review of educational policies, as indicated by Omotosho and Nyarko-Sampson (2014), SHS in Ghana seek to prepare students with skills and knowledge to enter into the world of work or for further study. According to Amoah, Kwofie and Kwofie (2015), in Ghana, the decision of what one wants to do with their life begins in secondary school, when they have to select the classes and/or programmes that will shape their future. According to them, each profession has its own set of course demands, personality traits, and physical attributes, all of which need to be evaluated rigorously before students can be considered competent to enter certain professions as they go up the educational ladder.

However, students who are in senior high school have a difficult time making decisions about their future careers. According to research conducted by Orewere and Ojochgu, (2020), it was found that senior high school students make their career decisions with factors such as their lack of expertise, cluelessness, the guidance of mates, the physical stress of peers, guardians, and instructors, or the outcome of the prestige that is connected to specific occupations. In addition, Otu (2015) conducted research on the influence that students' perceptions of affluence have on the careers they choose to pursue after graduating from SHS in Ghana's Akuapem North District. According to the

findings of his study, the majority of professional choices made by young people are motivated by limiting considerations such as wealth, and more specifically, cash, accommodation, and other ancillary advantages that they estimate they could obtain. The data also demonstrated that the kids are mostly impacted in their employment decision by both their families and the religious views that they were raised with. However, they are occasionally let down since the expectations they have are not satisfied, which leads to poor job turnout, unhappy employees, and a lack of job satisfaction for those employees. The consequences of unguided career choices for students in Ghana are far-reaching, as highlighted by Ankoh, Brimah and Adjetey, (2019) and Tawiah and Obeng, (2020). Firstly, unguided career choices can lead to wasted resources and efforts as students who end up in careers that do not match their interests or skills may eventually drop out or underperform. Secondly, there can be a negative impact on mental health, as students can experience anxiety, stress, and depression when they are not satisfied with their career choices. Finally, unguided career choices can lead to a disengaged workforce and economic loss for the country, as young people are unable to contribute adequately to the development of the nation.

As far as the needs and lifestyle of the youth particularly students are concerned, contemporary observations made by society, mass media, and civil societies in Ghana have shown that there is an increasing desire for meaningful work that aligns with personal values and goals among the youth, Asante (2019) and Asiedu-Addo (2021).

Statement of the Problem

The present research's overview indicates that many students make unsuitable career choices as a result of the influence of varied factors. As

indicated by Baek-Kyoo and Lee, (2017) career satisfaction is paramount since it contributes extensively to the overall happiness, stability and well-being of the individual. Baek-Kyoo and Lee further hold that to benefit from a career, a person must first select a profession that is suitable for him or her in terms of his or her individuality, interests, qualities, mode of judgment, and academic aptitude. This choice must be made within the context of a working place that is compatible with those factors.

Encounters in the Jirapa Municipality reveal that many senior high students express nervousness when it comes to career-related decisions. In the first year, many students attempt to change their programme of study. Some were not interested in the programmes they were admitted into and yet they are forced to offer such programmes. Some also forcefully joined programmes that their friends were offering. Some also meet coordinators of Guidance and Counselling to aid them to streamline their career choice to reflect traits that are fairly consistent in them. This usually continues throughout their stay in the schools and at the end, most of these students pass senior high school without settling on career choices they express happiness about. Available data from the Guidance and Counselling office in Jirapa SHS, St. Francis Girls SHS and Ullo SHS indicate sad revelations on students' career plans.

Between 2019 and 2021, fifty-seven (56.6%) cases of all the cases recorded on students on guidance and counselling in the G and C unit of Jirapa SHS centered on problems of little or lack of personal interest, happiness and satisfaction in their chosen programmes of study. Within the same period, twenty-six (26) students comprising thirteen (13) Form One, nine (9) Form Two and four (4) Form Three students dropped out from Jirapa Senior High School

due to a lack of interest in their programme of study (Office of the G & C, Jirapa SHS, 2021).

Enquiries from the Guidance and Counselling unit in St. Francis of Assisi Girls' SHS revealed that some students come to the school intending to learn handy works. They usually do not get what they want and wish they go to different schools. Being a single-sex school, some girls refused to study some programmes because they feel such programmes were meant for boys. Some parents have been consulted and educated to allow their children to offer certain programmes.

This case does not vary from Ullo SHS where some student boys mock their colleagues for pursuing some courses they believe are meant for girls. This struggle among students in the career decision process has led to poor attendance, low performance and dropping out from school and lack of interest in schooling.

Their inability to streamline their career choices seems to have resulted from some dominating factors that push them off their desired career paths. Students in the municipality also seem to be ignorant of their personality orientation and probably, careers that match certain personality traits. It looks as though students lack knowledge of the job opportunities available to their chosen careers. It also looks like students possess certain traits that are fairly consistent in them due to their gender, programme of study and religion. It further appears students do not know the impact of their personalities on their career decisions. Generally, senior high school students in the municipality seem to have no definite direction in making a career choice and so a need to research the

influence that character traits have on SHS students' decision-making about their future careers.

Career decision challenges among senior high school students have become a topic of concern to guidance and counselling professionals and educational Non-Governmental Organisations in the Jirapa Municipality. Guidance and Counselling Coordinators in the Jirapa and St. Francis of Assisi Girls' senior high schools have set a day within the week aside for career guidance and counselling services to interested students. This is however poorly patronized by students (Offices of the Guidance and Counselling Coordinators, Jirapa SHS & St. Francis of Assisi Girls' SHS, 2021). Campaign for Female Education (CAMFED), an educational NGO in the municipality has in the past three years organized career guidance seminars and sponsored senior high school girls to pursue various programmes of interest at the tertiary level in the St. Francis of Assisi Girls' Senior High School. However, their services were limited to the only girls' senior high school (Office of the Guidance and Counselling Coordinators, St. Francis of Assisi Girls' SHS, 2021).

As indicated by Soo (2010) and Sheldon, Holliday, Titova and Benson (2020), students in their senior high school should be urged to reflect on their personalities and consider how such traits could be related to potential career paths. One of the many ideas that describe the significance of an individual's personality in the process of selecting a profession is called Holland's Theory of Career Choice. Lathifa and Yusuf (2021) assert that Holland's Theory of Career Choice has a close relationship to problems that pertain to one's chosen profession. In addition, they state that per Holland's Theory of Career Choice and Workplace Conditions, the higher the similarity between a person's

personality and job characteristics, the more likely it is of the person has gratification in their career and potential overall success in career terms.

The Jirapa Municipality does not seem to have any study that investigated the possible links between different personality traits and the careers people choose. To fill in this gap, it is necessary to give empirical facts in the example of Jirapa Municipality in the Upper West Region. It was against these background that the study was conducted to investigate the relationship between Holland's Personality Types and SHS students career choices in the Jirapa Municipality.

Purpose of the Study

The purpose of this research was to investigate the relationship between Holland's personality types and the job paths chosen by students attending Senior High School (SHS) in the Jirapa Municipality. Specifically, the study sought to;

1. determine the factors students consider when choosing their careers in Jirapa Municipality
2. explore the personality types of SHS students in Jirapa Municipality.
3. explore the career choices of SHS students in Jirapa Municipality.
4. examine the influence of Holland's Personality Types on SHS students career choices in the Jirapa Municipality.
5. examine the gender differences that exist in SHS students' personality types in their career choices in Jirapa Municipality.
6. examine the differences that exist in SHS students' personality types in their career choice on the basis of programme of study.
7. examine the differences that exist in SHS students' personality types and their career choice on the basis of religion.

Research Questions

This research was guided by the following research questions.

1. What factors determine the career choices of senior high school students in the Jirapa Municipality?
2. What are the personality types exhibited by SHS students in the Jirapa Municipality?
3. What are the career choices of SHS students in the Jirapa Municipality?

Research Hypotheses

The study tested the following hypotheses:

1. H_01 : Holland's personality types will not significantly predict students' career choices.

H_{11} : Holland's personality types will significantly predict students' career choices.

2. $H_0 2$: There is no statistically significant gender difference in the personality types of SHS students and their career choice in Jirapa Municipality.

$H_1 2$: There is a statistically significant gender difference in the personality types of SHS students and their career in the Jirapa Municipality.

3. $H_0 3$: There is no statistically significant difference in SHS students' personality types and their career choice based on programme of study.

$H_1 3$: There is a statistically significant difference in SHS students' personality types and their career choice on the basis of programme of study.

4. H₀ 4: There is no statistically significant difference in SHS students' personality types and their career choice on the basis of religion.

H₁ 4: There is a statistically significant difference in SHS students' personality types and their career choice on the basis of religion.

Significance of the Study

Senior high school students could benefit from this research by learning more about the elements that play a role in their decision-making about their careers. They will therefore make informed choices from these factors by discovering and sustaining their talents in the career decision process.

Also, the study would be useful to parents through valuable career information and knowledge. The knowledge will assist parents to consider the interests, needs and other personality traits of their children. They will therefore grant their children the opportunity to discover their talents through the provision of needed career support.

Moreover, the study will offer counsellors and students an awareness of the classification of personality types and their accompanying occupational environment. This will serve as a framework to guide students who have challenges in matching their personalities with appropriate occupations. Additionally, counsellors in their delivery would be more effective and efficient in demystifying the misconceptions about career decisions students make based on gender stereotypes, a programme of study and religion.

The study recommendations would serve as a career information document for Guidance and Counselling Officers, the Municipal Education Directorate, Non-Governmental Organizations and educational planners in the

municipality and beyond to use to guide students to take well-calculated and thoughtful choices in their career.

Delimitations

The present research was based on the two mixed Senior High School students in the Jirapa Municipality. The participants were sampled from the General Art, General Science, Business, Visual Art, Home Economics and Agricultural Departments. The study was also delimited to the Jirapa Municipal only. Another focus of the research is on Holland Personality Types, the career choices of students and the Jirapa Municipality. The study was also delimited to gender, programme of study and religion as variables in the study. The study is further delimited to the descriptive survey as a design.

Limitations

The study investigated the relationship that Holland Personality Types have with senior high school students' decisions on their future careers in the Jirapa Municipality. As a result, the findings of the study cannot be applied to all senior high schools in Ghana. In a similar vein, the findings of the study can only be programmes offered in the senior high schools located within the Jirapa Municipality.

Due to the lengthy nature of the questionnaire, some students opted out from participating in this research. A section of the participants did not also submit their questionnaire as they could not complete them within the time given. Also, due to the double-track system in the senior high schools, the investigator was not able to get the information from the students within the same period. This slowed the data collection process. That notwithstanding, in order to guarantee the accuracy and consistency of the results, twenty-three

questionnaires were added to reduce some likely weaknesses that might occur in the findings of the study.

Definition of Terms

The following terms have been operationally defined.

Career- For this study, the concept “career” refers to any type of unpaid occupational activity or experience students have acquired or acquiring in the course of their training in the school and which will make them marketable during their study and over their lifetime.

Choice – The phrase “career choice” is used in the research to refer to the judgment that a learner makes in considering varied occupational route. This selection can be influenced by the student's personality, peers, family, career guidance counsellor and mass media among others.

Career Choice- In accordance with the research, career choice refers to the process by which students select a path of education that will lead them to a particular line of work by taking into account their level of interest, their level of passion, and their level of ability, all of which are impacted by a variety of factors including their personalities, the factors their parents have, the colleagues they have, and the role models they have.

Personality- In this study, personality is a combination of traits that makes a person takes certain actions or behave in a fairly expectable manner.

Organisation of the Study

The study was organized into five chapters. The first chapter dealt with the background to the study, statement of the problem, purpose of the study,

research questions/hypotheses, significance of the study, delimitation, limitation and definition of terms and organization of the study. Chapter two dealt with issues concerning theoretical framework, conceptual framework, conceptual review as well as empirical review that guided the study. Chapter three provides an overview of the research methods which include; the research design, population, sampling procedure, data collection instruments, data collection procedure and data processing and analysis. Chapter four of the study presented the study results and discussion. Finally, chapter five gave the summary of major findings, conclusions and recommendations made based on the major findings of the study.



CHAPTER TWO

LITERATURE REVIEW

This research assessed the relationship between Holland's Personality Types and the occupational paths chosen by SHS students in the Jirapa Municipality. In this section, a review of the relevant literature was presented. The goal of this chapter is to investigate what influential authors and writers have written about the subject. The review was done under the following headings. (1) Theoretical Framework, (2) Conceptual Framework as well as the (3) Empirical Review.

Theoretical Framework

The following theories formed the theoretical basis in this research. These are Holland's Theory of Career Choice, Ann Roe's Need Approach Theory of Career Choice, and Trait and Factor Theory.

Holland's Theory of Career Choice

One of these kinds is typically the more dominant, despite the fact that all of these elements constitute components of a human.

Holland's Theory of Career Choice

The John Holland Theory of Career Choice is a well-known model that explains career paths and decisions. Leung (2003) as mentioned by Omotosho (2014), Holland's theory has been used as a guiding theory for vocational interests' evaluation all over the world in the past few decades. One of the most significant vocational theories in the field of professional growth is Holland's theory of career development. Holland (1985) developed a theory of career choice based on the premise that a person's choice of a profession is a reflection of their personality. Holland's theory places a significant emphasis on a person's particular personality type as well as the working conditions that enable the

individual to openly describe that personality. According to Holland's Typology, individuals who share a similar personality type are more likely to be drawn to the same occupations (Roberts, 2019). The six personality types are realistic, investigative, artistic, social, enterprising and conventional (Gottfredson & Holland, 2017).

Realistic Personality: People in this group are not usually sociable. To some extent, they are aggressive and lack verbal and interpersonal skills. Included in this group are people who possess good motor and coordination skills. They find enjoyment in tasks that require them to use their hands, such as building, repairing machines, operating sporting equipment, and other similar pursuits. They favour engaging in active pursuits involving the manipulation of machinery, tools and plants. They also see themselves as practical, mechanical, and realistic (Omotosho, 2014). They are well suited for jobs such as mechanics, construction workers, and farmers (Gardner, 2016). Realistic types also excel in roles such as technicians and skilled trades (Salas & Staggers, 2019). People in this category also prefer occupations like a gardener, a technician, a florist, an architect, aviator, an engineer, a member of the military forces, an upholsterer, a computer technician, an electrician, a security officer, or a sports figure, construction worker, mechanic and electrician (Gottfredson & Holland, 2017). Students in secondary school can explore this personality type through the study of vocational subjects such as woodworking and metalworking. After completion of secondary school, students interested in pursuing a career in the aforementioned occupations can enroll in vocational education or apprenticeship programs (Roberts, 2019).

Investigative Personality: These are people who tend to be analytic, curious, methodic, and precise and like studying or solving mathematics or science problems. They prefer independent, abstract, and sometimes task-oriented individuals. They put a premium on science education and deem themselves to be intellectual, as well as possessing scientific or mathematical/calculation competence; however, they lack strong communication skills and vision Holland, as cited in Brown (1990). Aeronautical engineer, publisher of a scientific journal, science instructors, federal police, defense attorney, Judge, healthcare and wellness professions, pharmacist, scientific studies, marine researcher, medical or agricultural laboratory technician, zoologist, forestry technician, dentist, and physician are some of the professions that such folks prefer to work in. Occupations that suit this personality type include computer programmer, scientist and mathematician (Gottfredson & Holland, 2017). Students with an investigative personality type can explore their interests through the study of science, technology, engineering and mathematics (STEM) during secondary school. In tertiary institutions, students can pursue a degree in a STEM field or explore related careers through internships and research opportunities (Roberts, 2019).

The Artistic Personality: These people like to do creative activities like acting, dramatization, craft, dance, music, cooking, decorating and creative writing. They have a strong sense of their own expressiveness, individuality, and autonomy. The Artistic type is creative, expressive, painter, cameraman, sign writer, designer, musician, instrument player, songwriter, performer, actor, poet, publisher, journalist, advertising, hairstylist, and clothing designer and enjoys working with imagination (Liu & Lee, 2022). Artistic types also excel in roles

such as architects and interior designers (Moulaert, Pedersen, & Verbreke, 2020). They can study Visual Art, General Art (Literature in English option) and Home Economics. Appropriate programmes at the tertiary level are Music, theater Art, Home Economics and English programmes.

Social-Personality: These are individuals who enjoy working with people, helping and solving social problems. The members of this community have a self-perception that they are kind, pleasant, and dependable. They are normally concerned with social problems, religious problems and are normally community service-oriented. They interact in a kind and considerate manner and have the ability to persuade others due to the fact that they actually like collaborating with others. They believe that they are empathetic, helpful, joyful, and skilled in instructing; but they are deficient in their capacity to use machinery. The social personality type is characterized by a desire to help others and a strong sense of empathy. Compatible occupations for this personality type include teacher, social worker, an educator, secretary healthcare provider, healthcare assistant, counsellor, law enforcement officer, salesman, client service representative, kitchen staff (Gottfredson & Holland, 2017). Students in secondary school can explore this personality type through service-oriented extracurricular activities such as peer counselling or volunteering. After completion of secondary school, students can pursue an undergraduate degree in education, psychology or social work (Roberts, 2019).

Enterprising Personality: These are entrepreneurial who are vivacious, idealistic, daring, gregarious, and self-assured. They are drawn to positions of authority and love undertaking responsibilities that need them to influence others, such as working in sales. They are skilled in the art of persuasion,

conversation, and the ability to manipulate people. They often have an outgoing personality. They are usually good at public speaking and are typically gregarious, yet they may be seen as being dominant or as wanting to take added benefit of other people. They have a positive perception of themselves as authoritative, self-assured, and talented in mentorship and public speaking, but they feel they are weak in scientific ability (Smart, Feldman & Ethington, 2006). Compatible occupations for this personality type include, salespersons, lawyers, politicians, business owners, managers, travel agents, music or sports promoter businessmen, buyers of all kinds, hotel managers, masters of ceremonies, politicians, producers, entrepreneur and business executive (Gottfredson & Holland, 2017). Students in secondary school can explore this personality type through participation in student-run businesses or development of business plans. In tertiary institutions, students can pursue a degree in business or related fields such as marketing or management (Roberts, 2019).

Conventional Personality: These are people who are comfortable with routine activities. One major characteristic of people in this occupational environment is that they prefer to obey rules and regulations. They have an appreciable degree of self-control and are comfortable with taking commands from superiors. They also enjoy systematic manipulation of data, filing records, working with numerals and machines in a set. As a result of these traits, they have strong power and status. On average, they are conservative by nature. Such people prefer work such as bookkeeping, tax expert and traffic manager. Programmes in the senior high school include Business (Secretarial option). With this course, you can study librarianship, stores, secretariat works at the tertiary level. The positions of Administrative Assistant, Librarian, Secretary,

Receptionist, Bank Teller, and System Administrator, as well as Stores and Dispatch Clerk, are preferred. It is possible that an individual might have up to 3 domineering personality types. As per Holland's research, each of these categories of personalities may be depicted graphically as a hexagon as shown below;

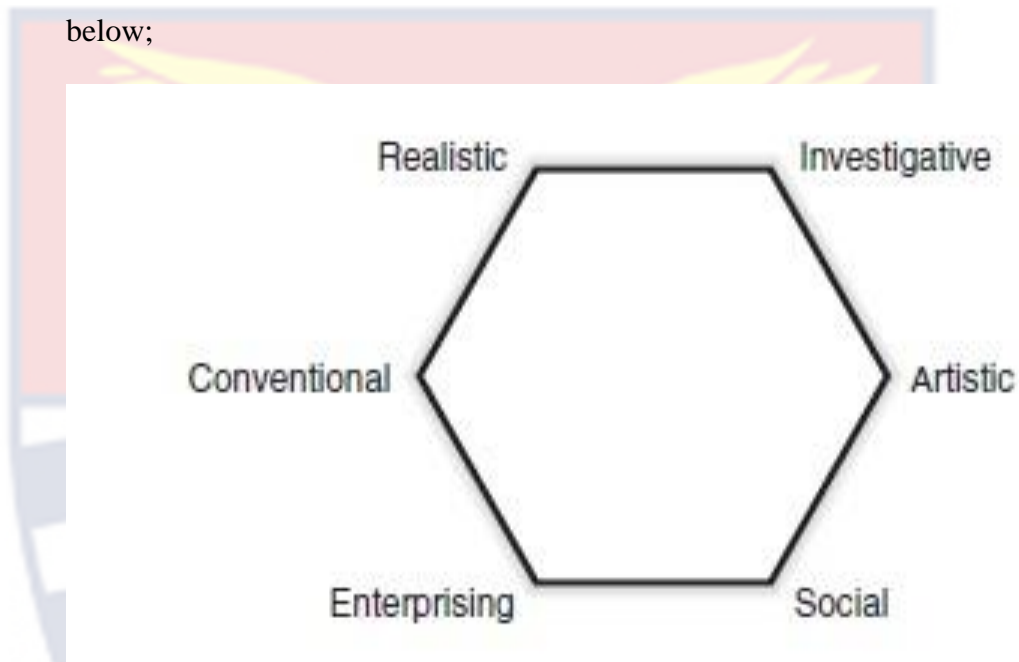


Figure 1- RIASEC Model

The degree to which each of the different personality kinds corresponds with the other may be seen via the use of this hexagonal structure. As per (Afful, 2019), personality types that are near to one another in the hexagon are more likely to have a significant correlation with one another than are classifications that are on opposing sides of the hexagon.

According to this hypothesis, persons of the same profession tend to have characters that are comparable and have experienced similar stages of personal development (Bedu-Addo, 2012). According to Holland, many of the career-seeking tendencies that one observes being showcased are an inevitable consequence of efforts to, in consequences, meet one's unique qualities with those of a precise occupational domain. This is true for a lot of the professional

life habits that one observes being displayed. As a matter of fact, a person projects onto the profession of his desired style, as a result of his perspective of himself and his vision of the world of work, as a consequence of the choice of a certain employment. As per Holland, an individual arrives at this viewpoint as they go through the many phases of growth that occur during their lives. Therefore, according to Holland, the degree to which an individual's personality and the setting in which he works are compatible is the most important factor in determining his or her level of scholastic and professional success.

Concepts of Holland's hexagon

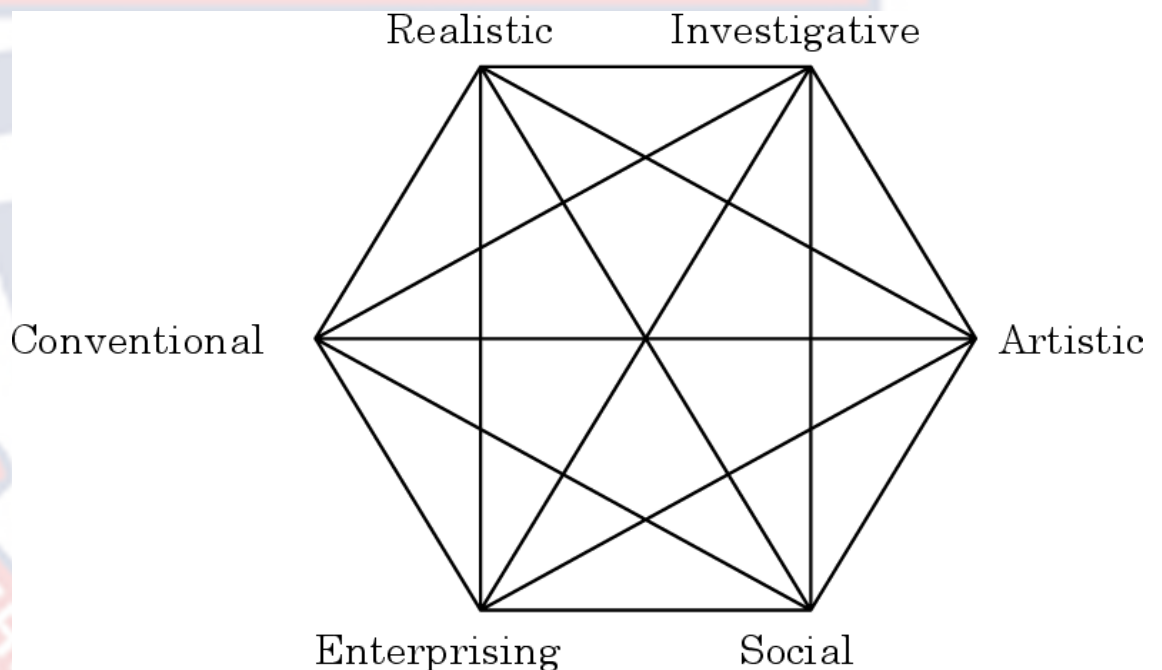


Figure 2- Hexagonal Model

A hexagonal model for analysing the interaction between the many sorts of people and the situations they are exposed to

As indicated by Namale (2012), Holland's hexagonal model introduces four main tenets. The subsequent paragraphs provide more details on the four key concepts.

Key Concepts of Holland's Theory

Consistency

This is connected to both one's character and his/her surroundings. In other words, some of the character traits share more characteristics with each other than do others. For example, those with artistic and sociable tendencies have more in affinity with one another than those with investigative and business-oriented tendencies. The personality characteristics are more congruent with one another if they are closer together on the hexagon. For instance, a social person who demonstrates a liking for plausible and exploratory operations is regarded as less coherent than a social person who conveys an involvement in industrious and artistic operations (SEA), which is an acronym for social individuals who actively engage in socially industrious and artistic operations (IRS). When the initial two letters of a word are located closer to each other on the hexagon, such as in the phrase "Social and Enterprising" (SE) or "Investigative and Realistic," significant uniformity is observed (IR). When extra letter on the hexagon appears between the first two letters of one's code, this indicates that the individual has a medium level of consistency. Take, for instance, the terms "realistic and conventional" (RC) or "social and conventional" (SC). When the initial 2 characters of the codes are split by two intermediate characters on the hexagon, the level of coherence is considered to be low.

Differentiation

Differentiation occurs when an individual fits into a personality type which has very less similarity to the other ones. Conversely, those individuals

who fit several personality styles are poorly defined and are considered undifferentiated. Brown and Ethington as stated in Otuei (2017).

Identity

This idea refers to people who have a distinct and consistent mental image of the aims, interests, and abilities that make them unique. When discussing the setting, the term "identity" describes the extent to which a certain corporate world has firmly established objectives, responsibilities, and incentives. People who have a lot of professional aspirations, as compared to just tiny fraction, tend to have a weak sense of self - image, Brown and Ethington as cited by Namale (2012).

Congruence

This takes place when a person's personality trait and the job setting are compatible with one another. Those with sociable personalities, for example, lean toward surroundings that encourage relationship with other people, as well as worries about social issues and interests in events. These kinds of persons have a greater propensity to thrive in settings that deliver the types of gratification that are significant to them. Analytical sorts, for instance, like the sense of fulfilment that comes from working in investigative contexts. It is possible to utilise the hexagon to assess the degree to which an individual's kind and surroundings are congruent with one another. A type of personality that is in proximity to a surrounding type would be considered to have the next best match, or to have the next greatest degree of consistency. Take, for example, a man who is outgoing and works in a setting that encourages entrepreneurialism. The smallest congruence between person and environment appears when the

types are far apart on the hexagon. Say, an investigative person working in an enterprising environment Brown and Ethington as stated in Namale (2012).

Basic Assumptions of Holland's Theory

According to Zucker as cited by Bedu-Addo (2012), the majority of people in contemporary society may be placed into one of the following six categories of personalities: realistic, investigative, artistic, sociable, entrepreneurial, or conventional. The use of types denotes the existence of a perfect model against which each person may be evaluated. The way in which a person chooses to interact with his or her surroundings is indicative of the sort of person that they are, Brown as cited by Namale (2012).

Realistic, investigative, artistic, social, entrepreneurial, or conventional settings are the six categories under which environments fall. "The vast majority of the people who live in each setting have the personality traits that are associated with that particular setting. People look for surroundings in which they may make use of their talents and capabilities, communicate their attitudes and beliefs, and assume positions and responsibilities that are to their liking. The relationship between a person's personality and the environment is what ultimately shapes that person's behaviour. It is possible to predict crucial outcomes such as a person's career path, job transfer, and professional accomplishments by having knowledge about one's character as well as the work setting in which they operate. People who work in the same line of work tend to have personalities that are similar to one another. This presumption is articulated quite clearly by the proverb "Birds of a feather flock together."

The human is evaluated in light of two or three significant character traits, and then the relevant kinds are linked with the ecological characteristics

of probable jobs in accordance with Holland's theory of vocational choice, which is used in order to provide support for career choice (Danqua, 2012). According to this hypothesis, the likelihood of having favourable career-related results, such as happiness, perseverance, and accomplishment, is increased when there is a strong level of alignment between a person's traits and the features of the work that they do. According to Holland as cited by Liridona and Dashamir, (2017) one's choice of a vocation might be seen as a reflection of one's personality. That is to say, a decision about one's line of work is effective if it is congruent with one's persona.

Relevance of Holland's Theory of Career Choice to the Study

Holland's career choice theory describes a clear role of personality in respect to the development of an appropriate career choice. This is important to the current study since it will explicate the need for families, schools to consider the personality types developed by children as well as help them to choose career choices that match their personalities.

Holland's theory is a matching theory in practice. It offers an awareness of the classification of personality types and their accompanying occupational environment. This will serve as a framework to use with the students particularly in Jirapa senior high school who seems to have a challenge in matching their personality with appropriate occupations.

An occupational and educational decision is one of the issues faced by the young generation. Vocational interest and occupational congruency seem to be one of the factors that influence students in their career decision-making process. Holland's Theory is one of the easiest and most practical career theories

that will help students in understanding their personalities and later help them in career decision-making.

Holland's theory places emphasis on the accuracy of self-knowledge and career information necessary for career decision-making. As used for the study, it would help students develop strategies that will enhance their awareness of their knowledge of self, occupational requirements, and deferring occupational environments. This self-knowledge and knowledge in the best-matched occupational environment would help students, particularly in Jirapa Municipality to juxtapose the two in making a career choice that they will enter, stay and succeed.

Traits and Factor Theory of Career Choice

This theory initiated by Parsons (1909), proposed that the individual's personality comprises several traits and factors which depend on one another and are identified in the form of abilities, interests, temperaments, and attitudes (Namale, 2012). The choice of career depends upon three factors. Firstly, accurate knowledge of one's self. The next consideration is to have an in-depth familiarity with the requirements of the work. In the last consideration, an individual should be able to properly connect their understanding of themselves with their understanding of the work requirements. This skill is known as the capacity to self-assess. In trait and factor theory, the three most important premises are as follows: The very first premise is that in order for a person to make appropriate judgments about vocation, they must first have sufficient understanding of both themselves and the aspects of work that they are engaged in. This is the starting point for this line of reasoning. The next point is that a person's attributes and those of the work may be paired, and the third point is

that a tight relationship between a person's qualities and those of the work is strongly linked with occupational performance and pleasure.

The prediction made by Parson's thesis is that people would select lines of work that are appropriate for them based on the qualities they possess. It is possible that decisions about one's professional path will be impacted by a lack of both self-knowledge and vocational data. Because of this, people could make decisions about their careers that go against their dominant character inclination, which would lead to a poor match between their personalities and their jobs. When deciding on a job path, people must, according to Parson's thesis, acquire critical information and abilities related to that field, as well as knowledge about themselves. Furthermore, gaining self-knowledge and career understanding is essential for determining the path that will lead to the most satisfying and successful professional life.

Edmund Williamson's publication on "How to counsel the students" is in great respect an extension of Parson's three-part formulation of vocational choice. Williamson in Namale (2012) outlined four types of career choice problems as follows;

Uncertain choice. These are career choices made as a result of uncertainty. These entail failing to adapt educationally, making a decision too soon, failing to grasp oneself and one's place in the globe, being afraid of failing, having an inadequate knowledge of the working environment and being concerned with satisfying peers/ relatives.

No vocational choice. The cause of no vocational choice may include due to a lack of access to work shadowing opportunities and an inability to formulate viable career options and activate interest in activities other than career careers.

The discrepancy between interest and aptitudes. This discrepancy is sometimes between stated interest and aptitudes or, at other times between measured interest and aptitudes. Lack of opportunities to develop interest and test the reliability of such interest may lead to such discrepancy

Unwise career choice. People make unwise career choices if there is little or no evidence to support the likelihood of success in their chosen career. Factors related to unwise career choices may include personality traits that will make job adjustment difficult, goals that are unrelated to interest, choice of an occupation that offers little opportunity for entry, choices made based on pressure from parents and friends and choices made without adequate occupational information.

Though Roberts, as cited by Omotosho and Nyarko-Sampson (2014), is of the view that competition and rapid changes in the job market in contemporary times make it difficult for people to make choices that match their personality, thus, as people search in vain for what they can do, they fall for what they can get, sometimes much against their personality orientation, this postulated theory is still key to this research in these following ways.

The trait and factor theory which came from initial works of individual difference as stated by Namale (2012) insist on matching the unique traits of the individual with the requirement of a specific occupation. This consequently helps the individual, here in as students to solve their career-search problems. The idea is linked to the creation of different evaluation methods as well as the improvement of career decision making. Test instruments used to sample the required traits of the students will help a great lot in matching the appropriate personality traits with the appropriate job.

Finally, like Holland's theory, this school of thought has a significant impact on the research into career and work environment, which is done with the goal of attempting to predict future performance based on an assessment of characteristics that can be realistically linked to the criteria of different kinds of occupations. This will help students, particularly in the Jirapa Municipality to make their career choices based on an objective measure of their personality and various requirements of jobs.

Ann Roe's Needs Approach Theory of Career Development

Roe (1956) used the concept of parenting style as the basis for his research, and as a result, she created the idea of a need for a relationship between mom and dad or guardian and kids. This concept included a series of parenting methods, ranging from overly protective to overly demanding, and from avoiding to accepting children. According to Pietrofesa's theory, which was presented in Fabea (2012), overprotection, as described by Roe, leads to an increase in reliance while simultaneously inhibiting exploratory conduct. The phrase "overly demanding conduct" refers to expectations pertaining to one's safety and success. If you avoid something, you are either neglecting it or actively rejecting it. Neglect includes the additional weight of a lack of bodily touch or concern, while exclusion refers to an explicit or deliberate refuse to participate in any positive conduct. Rejection may be interpreted as an actual or conscious unwillingness to engage in any positive behaviour. However, a caregiver may shun their child emotionally while still providing them with physical needs. Acceptance, in contrast, denotes that a kid is regarded a part of the household and is neither emphasised nor neglected.

According to Roe (1956), the primary emphasis of Anne Roe's study has been on the early relationships inside the family and how those relationships subsequently influenced the path that a career took. In the context of the topic of professional decision-making, Anne Roe's theory is often alluded to as the need-theory method. The formation of a need hierarchy is determined by the interplay of early parent-child relationships, memories gained from the surrounding environment, and inherited characteristics. The person will then discover how to mainly fulfil these newly created demands via engagement with other people or through activities that do not entail contact with others. Roe stressed the significance of early formative circumstances in playing a role in the degree to which one finds fulfilment in their line of work. Her study prompted her to examine the ways in which different parenting styles might impact a child's need hierarchy as well as the relationship between these factors and subsequent adult lives. She explores this further by using Maslow's need hierarchy to develop her theory. Roe asserted that an individual will first fulfill basic psychological needs before thinking or striving for higher-order needs like education (Namale. 2012).

This theory contends that the child-rearing pattern that an individual experienced during childhood influences the kind of interaction he/she will finally establish with others. Such Influences can lead to the individual desiring to mingle with people or shy away from people. For instance, some children were raised in families where the parents or guardians were over-protective and very accommodating to the child. All the needs of the child are met in this kind of environment. When the child becomes older, this way or method of satisfying his early years grooms him to select a career in which he wants, as well as rely on other peoples' rewards and feedback for his satisfaction. Thus, the individual

who wishes to work around people is largely pulled in this tangent due to their urge to belong and show love. Such individuals are described as people-oriented and they are found in people-oriented occupations.

In another family, child-rearing is one in which parents or guardians reject or neglect children either physically or emotionally. When such children grow up they mostly tend to move towards things like objects and animals to find satisfaction since they have not been trained to get their gratification from human beings. Such children may end up in non-person-type occupations. In effect, Anne Roe postulated that persons who take pleasure in collaborating with others had been raised up by caregivers who were sympathetic and understanding or guardians and others who do not like working with people but rather things and animals were bread by cold and rejecting parents.

Classifications of Occupations According to Anne Roe

According to Namale (2012), Roe categorised jobs into two primary groups, namely, person-oriented and non-person-oriented professions. These major categories further contain eight occupational groups.

Person-oriented occupations.

Service-related occupations. Some careers include being of service to others while also catering to their unique preferences and looking out for their general well-being. They are individuals who enjoy working with people, helping and solving social problems. Included are such occupations as Guidance and Counselling, Human Resource Management, teaching, pastoral studies, nursing, social worker, salesperson, customer service officer, waiter, etc. The common characteristic in this group is that one person is doing something for another person.

Business contacts related occupations. The vocations include dealing directly with customers in the sales of goods and investments, as well as concerns pertaining to the contractions of businesses. Convincing someone to do a certain action is the most significant factor where the persuader benefits if his or her persuasion is taken.

Organisation-related occupations. Such are the management and white-collar positions that are available in the private sector and the public sector. This line of work is largely focused with the establishment and effective operation of corporate companies as well as governmental endeavours. Formalization has a significant role in determining the nature of an individual relationship.

General culture-related occupations. The primary focus of these professions is on the conservation and transfer of the cultural legacy of the general population. People who are interested in these vocations have more of an interest in the activities that people engage in than they do in particular people. The fields of education, linguistics, journalism, law, ministry, and the humanities are all included in this category of professions.

Art and entertainment-related occupations. Such jobs comprise those whose primary focus is on the application of specialised abilities in the performing and visual arts, as well as in the amusement industry. Individuals here like to do creative activities like acting, dramatization, craft, dance, music, decorating, and creative writing. The main concern here is the relationship between one person and the general public.

Non- person-oriented occupations

Technology-related occupations. In this category, we will find jobs that deal with the manufacture, upkeep, and delivery of various goods and services. In most cases, they are preoccupied with finding solutions to problems. The people that live here like working with their hands, engaging in hobbies such as construction, metalworking, and operating machines. They are more interested in doing things that require them to use tools and machines. Jobs in interactions and movement from places to other places, as well as those in the mechanical and electrical engineering professions, are included in this category of work. To some extent, they lack verbal and interpersonal skills.

Outdoor-related occupations. The category comprises all of the jobs that are mainly focused with the growing, preserving, and collecting of foodstuffs, coastal or inland water supplies, mineral reserves, and livestock. Relationships with other people don't really matter all that much.

Science-related occupations. These are the professions that are chiefly worried with scientific theory and its use in particular contexts. People here tend to be analytic, curious, methodic, and precise and like studying or solving mathematics or science problems. They prefer independent, abstract, and sometimes task-oriented individuals. According to the findings presented by Namale (2012), there are increasingly greater levels of functioning associated with each successive occupational categorization. The Roe occupational category is essentially a consequence of the human requirements framework, but the degree of accomplishment within the group is more reliant on factors such as the person's interest/aptitude, level of talent, socio - economic status, and a number of other factors.

Relevance of Roe's Theory to the Current Study

The theory of need and career choice development proposed by Anne Roe elucidates the part that families play in the formation of occupational identities and the decisions they make about their professional lives. It even hints at the ways in which the effect may be altered by racial and socioeconomic factors. This is important to the current study since it will add information to emphasize the need for families to consider the personality types developed by students as a result of their rearing patterns during childhood. These personality traits developed may influence their career choice.

Roe's theory like Holland's theory is a matching in practice. It offers an awareness of the classification of occupations and the different levels within which they can serve as a framework to use with the students. With this frame which is similar to the framework of the current study, families, teachers, and career guidance counselors will explore the students' situation, preferences, skills, and aptitudes and relate this to the classification of occupations.

Conceptual Framework

The conceptual underpinnings of the research are shown in Figure 3.

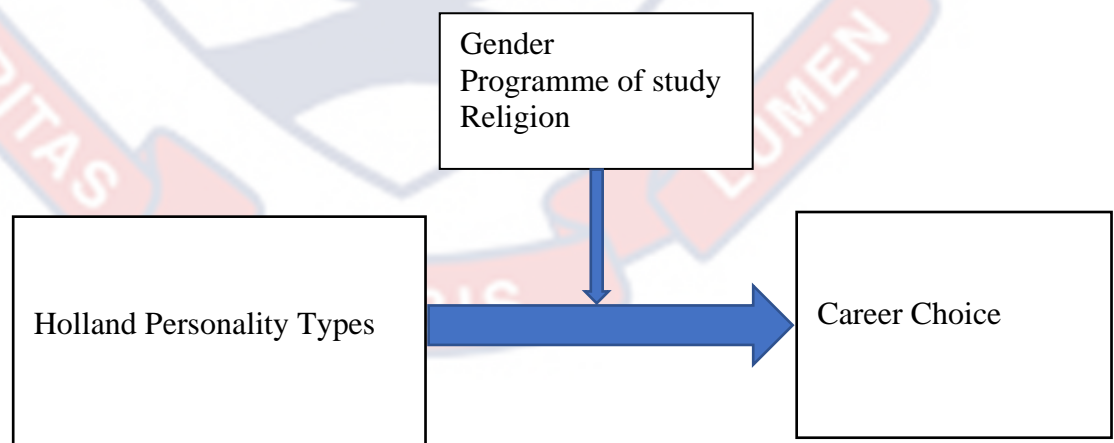


Figure 3- The Conceptual Model

Figure 3 shows the conceptual framework of the study. In the framework, the first assumption is that personality types will predict career choice. According to Holland's theory of vocational personalities and work environments, people with different personality types are more likely to choose careers that match their personality characteristics (Holland, 2017). This assumption was confirmed based on empirical studies in literature on the two variables in other parts of the world (Alkhelil, 2016; Lathifa, Yusuf, 2021; Ahmed, Ahmed and Salahuddin, 2019; Omotosho, 2014). Literature has shown that personality characteristics predict career choices in other parts of the world. The researcher intends to confirm this positive relationship or otherwise between the two variables (personality types and career choice) in the Jirapa Municipality. However, the relationship between personality types and career choice may be moderated by gender, programme of study and religion. The researcher is also curious to know and therefore hypothesized that there is no statistically significant difference between Holland's personality Types and senior high school students' career choice in their gender, programme of study and religion in the Jirapa Municipality. The information about the influence of gender, programme of study and religion on students' personality types and their career choices is what appears to be missing in personality psychology literature for which reason this study is being conducted.

Conceptual Review

This section dealt with the explanation of some concepts in the study.

Career

Scholars have defined careers in many ways. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) defines a career

as "the interplay of work roles and other life roles throughout the course of a person's lifetime," encompassing paid and unpaid employment. Gecikli (2002) offers a definition for it in which he describes it as the professional, marketable, or commercial activity that a person may engage in throughout his or her educational career or till passing. According to Vondraek, Lemer, and Schulenburg (1990), a professional life is a vocation, profession, or work opportunities through which a person generates his or her livelihood. More specifically, Vondraek, Lemer, and Schulenburg (1990) define a career as a vocation for which an ordinary person has received instruction in an educational setting or through an internship. (Latif, Aziz, and Ahmed, 2016) summed up that a person's career is a blueprint of the work that they will do throughout their whole life. It is possible to define a career as a long-term series of compensated and free jobs, responsibilities, actions, and encounters that a person has held or experienced during the course of their lives. In the context of this research, the term "career" might apply to any kind of vocational endeavour or experience students have acquired whether paid or unpaid in the course of their training in the school and which will make them marketable during their study and over their lifetime.

Personality

According to Bedu-Addo (2009), personality is a collective of traits that are fairly consistent in a person to make the person behave in a fairly predictable manner. To him, personality is a very important element in choosing an occupation because a personality that does not match a personality is likely to present the job holder with difficulties. According to Namale (2012), temperament may be seen as an individual's manifest expression of their interior

self. He stated one's personality as having a lot to do with one's happiness and success in a career. According to Perger and Takacs (2016), there is no clear path to follow when choosing a job. As a result, they recommended students to know their dispositions and correlate those traits with the occupations that are the best matches for those characteristics. Individuals should make career choices based on their personality orientation (Sheldon, Holliday, Titova, & Benson, 2020).

Several studies have been conducted across the globe about the influence of personality on decisions of career about the individual and for that matter SHS students. According to Bedu-Addo (2009), individuals with personality-oriented towards extroversion are out-going, sociable, optimistic and cannot stick to one thing at a time. He added that they are accident-prone, often quick in attending to activities but mostly inaccurate in results. This implies that a highly extroverted student will find certain jobs like surgeons rather difficult since he or she lacks attention and may make a lot of mistakes with patients. On the other hand, such an extroverted child can easily flourish well in occupations like politics, salesperson, or travel agent which do not require them to memorize too much or sit in one place for a long time. Bedu-Addo again maintained that people with introverted personalities tend to think deeply about the pros and cons of situations before acting. They prefer isolation to mixing with people, tend shy, and are serious about everyday activities. In terms of making a career choice, an individual that has the propensity towards introversion would feel at peace being a research scientist, pharmacist, or surgeon since such jobs will not bring them into contact with so many people (Bedu-Addo, 2009).

In a study by Ahmed, Ahmed and Salahuddin, (2019) that investigated how RIASEC personality traits crystallize occupational preferences among

adolescents in Pakistan, it is confirmed that the RIASEC personality traits of Holland played a significant role in career choice. Another study conducted by Alkhelil (2016) revealed that there is a statistically significant relationship between personality traits and career choice among secondary school students.

This study employed “The Big Five Model” to find out if certain personality types are better adapted for certain job types and if personality traits can affect the choice of a chosen career. Kemboi, Kindiki and Misigo (2016) in Kenya and Raveenther (2017) in Sri Lanka also asserted these findings. This implies that not only the student should know about their personality concerning their career choice, but parents, teachers, counselors and all the people involved in helping the students should be aware, to impose their opinions on the students’ career decisions. As maintained by Gwelo (2019), personality type is one of the critical factors that should be considered when choosing a career. The failure on the part of one to match one’s personality type with a career leads to lifelong mistakes and causes disappointment during the learning process and dissatisfactions one goes through in the job field.

Studies that adopted Holland’s theory have found that there is a relationship between personality types and career choice (Ahmed, Ahmed and Salahuddin, 2019; Onoyase & Onoyase, 2009; Zainudin, Rong, Nor, Yusop and Othman, 2020; Leung; Lathifa and Yusuf, 2021 and Soo, 2010). There have not been many studies on the relationship between personality types and students’ career choices in the Jirapa Municipality. It is on this note that this study is undertaken to establish the congruence between Holland personality types and career choices, particularly in the Jirapa Municipality.

Career Choice

Taylor and Buku (2006) define choice of vocation as something that involves deciding on the kind of work one wants to pursue in one's lifetime. In their view, many variables from the perspective of the home, the personality of the career seeker, and the society or the environment come into play when making such decisions. Stated in their work are factors such as abilities, needs, interests, stereotypes, values, school, and family or parental background which may influence the career decision of an individual. According to Maina (2013), chosen profession is the preference of a study programme that leads to a defined vocation based on an individual's enthusiasm, desire to engage, and capacity as impacted by variables such as household aspects, colleagues, and mentors. Maina defines vocation as the selection of a study path that leads to a predefined vocation. The authors of the aforementioned study, Lau, Chung, and Wang (2019), recommend that students choose a professional path long before they start looking for work. Despite this, choosing a path for one's professional life is a difficult endeavour that presents a significant conundrum, especially for young people (Kulcsár, Dobrean, & Gati, 2020).

A person will go through a series of processes before deciding on a specific line of work as a future vocation as part of the process known as “the choosing of a profession” (Kolawole, Osundina, James, & Abolaji, 2012). These procedures consisted of the following three parts: (1) deciding what you want to do, (2) taking the steps necessary to make your decision a reality, and (3) reaching a critical position and level of accomplishment that will determine the future paths and activities of one's career. What it means is that a successful decision in a particular career requires the career seeker to follow these steps.

Easy as these steps may appear, the many of external interwoven factors which probably ignores the internally motivated factors such as personality has made career selection by students rather difficult in this contemporary times though these internal influences have a vital effect in the decisions that individuals make (Saleem, Mian, Saleem, & Rao, 2014). Thus, the present study is conducted to study how personality as a variable affects the process by which students in the Jirapa Municipality take decisions about the kind of occupations they want to pursue in their lifetime.

Empirical Review

Factors of Career Choice

Family as a Determinant of Career Choice

The family in which the individual is raised communicates to the child certain values, demands, and expectations to the child and this can affect the individual's educational skill development and career selection, Namale (2012). This shows that the family plays a key role in the career decisions of the student. There is adequate literature that attests to the fact that family may influence the career choice of students in senior high school. Much of the research on family influence however focuses on individual parents' careers, such as the father or mothers influencing children to choose certain careers. This research considers family members in general and their influence on career choices which includes parents, siblings, and extended family members, for instance, in Pakistan (Baloch and Shah, 2014; Saleem, Hannan, Saleem and Shamshed, 2014; Abbasi and Sarwat, 2014), in America (Bates, 2015)

Mwaa, (2016) investigated the extent to which parental factors influence career choice among form four students in Nairobi County in Kenya. A total of

400 students were sampled for the study. The purposive sampling technique was used to sample 10 schools from Nairobi County for the survey while a simple random sampling technique is used to sample the students. The study results revealed that parental highest education level, parents' occupation, parental values and expectations, and parent-child relationships influence the career choice of children.

In Pakistan, Baloch and Shah (2014) study ascertain the significance of awareness about the selection process in students' career choices. Analyzed data from surveys were received from 572 students in both Urban and Rural areas. The results of the study showed a positive and significant relationship between students' knowledge of the selection and recruitment process and students' career decision-making and career choices. The impact of family influences on students' career decision-making and persistence in choices made observed. This implies that the information used by students in making career choices in the future is based on the information students receive from their family members such as their father, mother, guardians, and siblings.

In a contrary finding by Ukwueze and Obiefuna (2017), they investigated the influence of selected environmental determinants of career choice amongst secondary school students with specific emphasis on the influence of family and societal factors on the career choice of these students in Nigeria. A simple random sampling technique is employed to select 248. A structured questionnaire is developed and used to collect data, which is analysed using both descriptive and inferential statistics. The study results indicated that family factors such as parents' and siblings' wishes, parents' financial capacity, and family's social class do not influence the career choice of secondary school

students. Interestingly, however, it is indicated from the data that students' career choice is based on what their parents could afford to train them in and that their career choice is based on their parents' wish. So, while none of these family factors significantly influenced the students' career choice, it is noted that the parents' economic capacity and their wishes had some influence. Meaning, students chose careers based on the affordability of the cost of training to their parents.

This result is proudly supported by Wachira, (2018). The relationship between parental variables and career choices among students in secondary schools in Kenya is examined. A correlation design is adopted to gather both qualitative and quantitative data. Both stratified random sampling and random sampling techniques were used to obtain a sample size of 530 consisting of 276 students and 254 parents. The study used a questionnaire as the research instrument. The study indicated that parents are detached from their children when it comes to identifying and nurturing their talents and do not encourage them to consider varying educational and career options. The study also revealed that the relationship between parents and students is generally not inclusive of making career choices. This means that parents do not understand students' thoughts, feelings, and opinions and therefore do not encourage them to consider their varying educational and career options. Though these studies were conducted in some schools outside Ghana, they have established the fact that family members in one way or another influence the career choice of students. Due to differences in culture and child-rearing patterns, a similar study is necessary in the Jirapa Municipality to ascertain the consistency or otherwise in results.

Career Guidance Programmes as a Determinant of Career

Social Learning Theory proposes that the role of a career counsellor is to help clients develop their career choices and help explain beliefs that can obstruct or promote their career plans (Krumboltz, 1996). Study results by Upoalkpajor, Egglely, and Namale, (2018) revealed that students are aware of the presence of guidance and counseling services in their schools though the patronage of these services is low due to issues of confidentiality and counsellors being assigned to only teach. This study explored students' patronage of guidance and counselling services in Senior High Schools in Ghana. A cross-sectional survey design is employed and a sample size of 475 students is selected using a multi-stage sampling technique. The availability of the services shows that career guidance is also available since it is a sub-set of the school guidance programme.

Mtemeri, (2017) conducted a study to investigate factors that influence the choice of career pathways among high school students in the Midlands Province of Zimbabwe. The investigation is to serve as a springboard that will establish a career guidance model which would assist career guidance teachers in high schools in their endeavours to help students make career choices from a well-informed perspective. A survey design and a questionnaire of thousand and ten high school students and 20 career guidance teachers took part in the study. The study revealed that career guidance, especially school career days, has a positive impact on students' choice of careers.

In a consonant study by Orewere and Ojochogu, (2020), an investigation on the effect of guidance and counselling services on students' career choices in selected secondary schools in Nigeria, Jos Metropolis is precisely carried out. A

descriptive research design of the survey type is used. Adopting the Stratified random sampling technique, one hundred (100) senior secondary students were selected to form the sample size. The result from the study indicated that there is no significant difference based on guidance and counselling services offered to students and on the influence of career choice provided to students.

In Ghana, Amoah, Kwofie, and Kwofie (2015), in their study also examined the role school counsellors play in schools that influence students in their bid to choose a career. A sample size of 200 students is used to select final-year students using the proportional stratified sampling technique. Results from the study revealed that students strongly agreed that career guidance and counselling, career goal identification, organization of career days and conferences, and administration of occupational interest inventory on students were among career intervention roles by the school counselors which influence their choice of career. This means that career programmes delivered by counsellors, influence students' choice of career.

Lawer, (2015) in an initial study however yielded a contrary result. The researcher examined factors that inform students' choice of study and career in the Kumasi Metropolis. The results revealed among other things that the career guidance programme did not have any prominent influence on students' decision to tow a particular career path. Similarly, Frimpong, (2016) investigated influential factors on career choice among high school students in the Brong Ahafo Region, Ghana. Using a survey and questionnaire as the design and instrument respectively, simple random sample techniques were used to select 78 students from public second-cycle institutions in the district. The results revealed that there are no laid down steps students follow in making career

decisions and students do not attend any career workshop in selecting their desired careers. This shows that career guidance counselors do not organize career conferences and career days in the schools for students to select appropriate careers in the Tano District. Though the sample size is quite too small to make any major generalization, the lapse on the part of career guidance counsellors not organizing career workshops to enable students to choose their careers may be the same in the Jirapa Municipality and therefore requires a study among the students in that municipality to find out if indeed career programmes determine career choice among high school students.

Peer Group as a Determinant of Career Choice

In a study, Mtemeri, (2020) in Zimbabwe presented an overview of peer pressure as a factor that influences career decision-making among high school students. A total sample size of thousand and thirty participants is randomly selected for the study. Results from the study had it that students are influenced by their peers in making a career choice in several ways. The above revelation is in line with previous studies such as Alika (2010), Kimiti and Mwova (2012) in Kenya; Hashim, and Embong (2015) in Malaysia, who all investigated the relationship between peer pressure and career choice and asserted that career direction is influenced by peers.

A study by Duodu (2000) in Ghana found out how the choice of career is influenced among student peers rather gave a mid-way revelation. With a sample size of 375 in schools within the Sunyani municipality, he reported that 40% of the respondents chose careers their friends applauded. He stated further that, students discuss their future careers with their friends and listen to their comments and advice about their choice. Of course, the 40% score of all the

positive responses showed that there is no strong relationship between peer influences on the choice of career among students.

On the contrary, Akporobaro, Agboola, and Eibhale, (2020) in Nigeria investigated the influence of peer groups on secondary school students' career choices. The simple random sampling technique got the researcher a total sample size of 306 students. The findings revealed that students were not moved to choose a particular career because their friends were going into that profession; there is no significant correlation between peer group influence and students' career choices. Apart from the fact that some of these studies were conducted outside and cannot be generalisable to students in Ghana due to differences in cultural settings, the inconsistencies in their results demand that further study be conducted in Ghana and specifically in the Jirapa Municipality to ascertain the reliability or otherwise of the factors that determine the career choice of students in the senior high school.

Mass Media as a Determinant of Career Choice

A study in Kenya by Njogu, Kibaara and Gichohi, (2019) sought to examine the impact of mass media on the career choice of students in public secondary schools. A descriptive survey design is used. Through stratified, systemic, and purposive sampling, 460 participants were selected from 364 schools. The results revealed that when students have access to television, computers and mobile phones they can quickly and easily increase their knowledge about career choices. Information obtained from students confirmed that media personalities and celebrities influence their career paths to a great extent. The study took cognizance that nowadays students use mobile phones as

a medium of accessing all other mass media. Subsequently, the influence of mobile phones on career choice could not be underestimated.

Though the results indicated that TV is the most accessed and influential mass media in public secondary schools, programmes watched are fairly important to students. This means that most programmes watched on TV are not necessary to secondary school students and hence their influential role in career choice and their reliability as sources of information on careers may not be guaranteed. Though these authors contended that there is a positive and statistically significant relationship between mass media and the career choice of students, the results refer to Kenyan students. Also, the purposive sampling method used to sample the students may lower the reliability of the results. A similar study that will use the simple random sampling method to sample the students is needed in Ghana.

In a study, Saleem, Hanan, Saleem and Shamshed, (2014) conducted a study that explored the effects of media on students' career selection in Lahore. The authors used a systematic random sampling technique to collect data from first-semester students through an online survey. The study held that media is playing a significant role in career selection. The study showed that mass media in particular has an impact on students' career choices. Through the mass media, students are more empowered because of the information they gather through the usage of new information technology and basic education and skill set they have as well as influencing the perception and decision-making of students. That is to say, those career decisions made by students are influenced by social media. In contrast, Cooper, (2013) studied the impact of the media on college students' career aspirations in New York. This study found out if the media plays a

significant role in college students' career choices. The results showed that social media use among students is not directly related to students' career aspirations. Going by this contradiction in findings, a further study on the influence of social media on students' career choice needs is conducted in Ghana to ensure consistency.

In another study, Owusu-Acheaw and Larson, (2015) studied the use of social media and its impact on the academic performance of tertiary institution students in Koforidua, Ghana. The study result showed that the majority of the students had mobile phones with internet facilities and they also had knowledge of the existence of social media sites. Consequently, they visit their social media sites and spend between thirty minutes to three hours every day. The study result also emerged that the students have access to YouTube, Facebook, WhatsApp, Instagram, Wechat and Google+ at home and in school where they engage in sharing videos, chatting, sharing pictures, Facebooking, twitting and re-twitting among others. Bandura, (1977) in his social learning theory maintained that we learn through imitation, modeling, and observation, which require active motivation to pursue a goal, attention to the programme and memory of what is portrayed. What one imitates and observes is based on what he or she chooses is worth this active attention. This means that students have selective exposure which enables them to form opinions and views regarding their future potential success and for that matter, their career. Research has yet to show if the amount or type of exposure to media shapes the way students view themselves and how likely they translate these views and opinions into their career choice. Based on this background, there is a need to investigate the influence of social media on the career choice of Senior High School students in the Jirapa Municipality.

Personality and Career Choice

Career choice remains a critical decision that has an impact on the future life pattern of an individual. A study conducted by Alkhelil (2016), examined the relationship between personality traits and career choice among secondary school students in Damascus. The study aimed at finding out if certain personality types are better adapted for certain job types and if personality traits can affect the choice of a chosen career. 178 Damascus secondary school students were randomly selected for the research study. The Big Five Model is used. The findings were that a positive correlation existed between openness to experience as a personality type and research and science roles as a career choice; extraversion as a personality type and technical occupations as a career choice; conscientiousness as a personality trait and managerial roles as a career choice. Results indicate that there is a statistically significant relationship between personality traits and career choice in most cases as explored. Though the study used the Big Five Model for its theoretical finding, Blake and Sackett, (1999) in their rational-empirical analysis of Holland's Typology and the Five-Factor Model reported a pattern of empirical relationships between interest and personality scales that is consistent with Holland's description of his typology.

In Pakistan, Ahmed, Ahmed, and Salahuddin, (2019) confirmed that the RIASEC personality traits of Holland played a significant role in career choice. The study investigated how RIASEC personality traits crystallize occupational preferences among adolescents. The researcher used a sample size of 1,147 participants between the ages of 13 and 21 for the study. Findings from the study have male adolescents surfacing as more realistic (37%), enterprising (30%), and conventional (22%) than their female participants. On the other hand, female

participants were more investigative (10%), social (50%), and artistic (71%) as compared to males. The results using Holland's RIASEC Scale test (1997) depicted a significant impact of RIASEC personality traits on occupational preferences. This study is conducted in Pakistan. There is therefore the need for a similar study to be conducted in Ghana, specifically, the Jirapa Municipality to confirm or disconfirm the above findings.

Onoyase and Onoyase (2009), in Nigeria also investigated the relationship between personality types and career choice of secondary school students in colleges using the Students' Personality Questionnaire (SPQ) and Students' Career Choice Questionnaire (SCCQ). The results revealed significant relationships between the Artistic, Social, Enterprising, and investigative personality types and career choices. This study did not establish any relationships between the realistic and conventional personality types and career choices. There is therefore the need for further studies among senior high school students in the Jirapa Municipality context to ascertain the relationship or otherwise of the personality types that did not correlate positively with an appropriate career choice in their study.

Personality, Career Choice and Gender

A study by Durosaro and Nuhu (2012) investigated the relevance of subject selection of school-going adolescents about their career aspirations with particular emphasis on examining the influence of age and sex on career choice. The sample size comprised 515 male and female Senior Secondary students between the ages of 15 and 22 years. A questionnaire is used to collect the data. The data were analyzed descriptively. The study established among other things that gender is a very significant factor in the career choice of senior secondary

school students in Ilorin Metropolis. Their study implied that there is a type of sex stereotyping in the career choice of senior secondary school students. It equally revealed that female students were inclined toward careers that were feminist while their male counterparts opted for masculine careers. This study's objectives and focus are the same as the current study. The participants' characteristics are the same for both studies, thus the exploration stage as opined by Super in his stages of career development. Ghanaian students may however exhibit different career choice characteristics from their counterparts in Ghana hence, the need for a similar study in Ghana to ascertain the consistency in the two results for easy generalisability.

In another study, Migunde, Agak and Odiwuor, (2012) in Nigeria, explored gender differences in adolescents' career aspirations. The study was conducted on 348 form four secondary school students. The major findings of this study indicated that investigative and enterprising career-type careers are preferred by both males and females. The results further indicated that realistic career type is mostly preferred by males while the social career type is mostly chosen by females. Migunde and colleagues by this assertion are of the view that gender as a third variable influences the connection between personality traits and choice of career.

Personality, Career and Choice Programme of Study

According to Esseh, Ry-Kottoh and Owusu (2021), it is important for one to decide on the educational path to follow in order to arrive at one's desired career destination. As a result, they adopted a survey that adapted Germeijs and Verschueren's (2006) Study Choice Task Inventory (SCTI) to gather relevant data from 1,006 senior high school student participants on how they choose

programmes of study in higher institutions. From the findings, it is revealed that high school students in Ghana were well-oriented about the “study choice task” and it helps them to choose programmes to pursue in higher education. This implies that students know inventories that can help them choose their programmes of study. The current study will explore further to see whether the programmes chosen through the inventories influence the relationship between Holland Personality Types and choice of career among students in senior high school.

Durosaro and Adebanye (2012), in a study also investigated the relevance of subject selection of school-going adolescents about their career aspirations with particular emphasis on examining the influence of age and sex on career choice. The subjects for the study consisted of 515 male and female Senior Secondary 2 students drawn from ten mixed schools with ages ranging from 16-21 years. A questionnaire is used to collect the data. The data were subjected to descriptive analysis. The study revealed, among other things that students did not know the type of subject they were to offer if they wanted to pursue a certain career at higher levels.

Yamin-Ali, (2014) in a study in Trinidad explored how subjects are selected in secondary schools. Data were collected from 131 students. The results of the study indicated that students were not satisfied with their subject selection, and there is evidence of some misfits between students’ career preferences and their subject selection. This dissatisfaction is however attributed to parents for their advice on subject selection and limited subject offerings for many of the students. Generally, students felt they needed more options in the subject offerings. The mismatch between the students’

programmes of study and their career preferences could be influenced by a mismatch between certain personality traits and their choice of career. The researcher however did not explore that. The current study will therefore explore the relationship between personality types and career choice based on programme of study.

Personality, Career Choice and Religion

McCullough, Tsang, and Brion, (2003) studied personality traits in adolescence as predictors of religiousness in early adulthood. The authors examined the associations of the Big Five personality factors with religiousness in adulthood for a 19-year longitudinal sample of 492 adolescents age 12 to 18. Subjects were undergraduate students enrolled in an introductory psychology class at a major southwestern university. Among the Big Five, Conscientiousness in adolescence is uniquely related to higher religiousness in early adulthood. The significant unique association of Conscientiousness with religiousness shines through in the multiple regression analyses. These findings, along with data indicate that religious people tend to be more conscientious than their less religious counterparts. In another study, Saroglou (2002) in a Meta-analysis study, using the five factors model of personality as a framework, found that general religiosity is related to extroversion, agreeableness and conscientiousness.

Malgorzata (2019) in a study “Big Five Personality traits and life satisfaction: the mediating role of religiosity”, verified whether the relationship between personality and satisfaction in life is mediated by religiousness. The sample consisted of 213 participants. The NEO Five-Factor inventory, the Religiosity Scale was used to gather data. Results among other things found

a trend of positive correlations between personal religious choice and agreeableness and extraversion. This shows that there is a relationship between personality and choice of religion. This study is however conducted using the NEO Five-Factor Inventory. Having established this relationship, the current study will employ the Holland Personality Types to explore the extent of influence of Holland Personality Types on the religion of senior high school students in the Jirapa Municipality.

Although the previous studies have mainly confirmed the positive relationships between personality traits and religious orientation, the study employed the “Big Five Personality Model” as a framework. There is therefore the need to conduct further studies using the Holland Personality Types in the Jirapa Municipality.

Chapter Summary

It became clear from the several researches that were examined that the elements that affect an individual's career are diverse. This aspect of the work provided a literature analysis on several perspectives of the decision-making process behind job choices. Holland developed a theory of career selection based on the notion that an individual's arrival of vocation is a reflection of their unique personality. Holland's theory places a significant amount of emphasis on a person's particular personality type as well as the working conditions that enable the individual to fully express that temperament type. The idea promotes people to choose profession choices that are similar to their dominant personality orientation for them to have a personality/occupational match. Specifically, the theory urges individuals to choose careers that are comparable to the following: The Trait and Factor Hypothesis of Career Choice is an additional theory that is

used. It all started with Parsons (1909), who put out the idea that an individual's personality is made up of a variety of characteristics and aspects.

First and foremost, having an accurate awareness of oneself. The second aspect is to have an in-depth familiarity with the requirements outlined for the position. In the last consideration, an individual should be able to properly match their knowledge of themselves with their understanding of the work requirements. This skill is known as the capacity to self-assess. The Needs Approach Theory of Career Development developed by Ann Roe is going to be discussed as the last theory. Roe thinks that the development of a need structure, which the individual then learns to satisfy primarily through interaction with people or through activities that are not related to other people, is determined by a combination of encounters with the external surroundings, early interactions of caregivers and wards, and genetic characteristics. This can be found in Roe's article. Roe considers the formation of early relationships within the family and the influence these relationships have on a person's choice of vocation to be the primary focus of her work.

In addition, a literature analysis on the elements that SHS students in Jirapa Municipality take into consideration while choosing a professional path was presented. It has been observed that the level of education of the mom and dad, the desires of the entire household, and the quality of the relationship between wards and primary care givers are the family characteristics that have the most impact on profession choice. It has been shown that the function that schools play in terms of providing career advice officials is a factor that influences the professional paths that SHS students select. The investigator also spoke about how gender problems and the effect of peers might have on the

decisions that students make about the jobs they aspire to do. It has also been shown that the mass media has an impact on the students' vocational targets or aspirations to some level. A review of literature on programmes of study and career choice showed that students are aware of inventories that guide them to choose the programmes though the programmes are limited to their interests. Some students in senior high school also consider their personalities when making choices relating to their careers.



CHAPTER THREE

RESEARCH METHODS

Introduction

The primary objective of this research is to determine the relationship between Holland's Personality Types and careers chosen by SHS students in the Jirapa Municipality located in the Upper West Region of Ghana. The chapter discusses the research design, study area, population, sampling procedure, data collection instruments, data collection procedure, data processing and analysis and chapter summary.

Research Design

This study adopted a descriptive research design. This method was applied in the gathering of data from the field to respond to the questions and hypotheses concerning the relationship of Holland Personality Types on career Choice among senior high school students in the Jirapa Municipality. Asamoah-Gyimah and Duodu (2007) assert that the descriptive design is liable to distortions that may arise from the introduction of biases in the measuring instruments. The respondents are also less likely to provide accurate responses if they suspect questions are assessing intimate matters. That notwithstanding, this design is still preferred because it involves hypotheses formulation and testing, or questions and answers describing a situation. Jacobs as cited in Afful (2019), said this type of research makes use of visual aids such as tables, charts and graphs and will be suitable for this study.

Study Area

The study area is the Jirapa Municipality which is among the eleven Districts and Municipalities that make up the Upper West Region. The northern portion of the district was afterward divided to establish Jirapa-Karni District on

29th February 2008; hence the fraction of the neighbourhood was later named as Jirapa District, which was subsequently elevated to Municipal Assembly status on 15th March 2018 to become Jirapa Municipality. The Municipality is located in the northwest part of the Upper West Region and has Jirapa as its capital town. It has a total land area of 1,191km² area. Jirapa Municipality is bordered to the south by the Nadowli-Kaleo District, to the north by the Lambussie-Karni district, to the West by Lawra District and to the east by the Sissala West District. The municipality has a total population of 91,279 out of which 43,021 are males and 48,258 females with an average household size of 5.9 persons. (Source: Ghana Statistical Service, 2021).

In terms of religious affiliation, the majority of the population are Christians (65.9%) followed by Traditionalists, who represent 18.8% of the population and Muslims (10.4%). The municipality accounts for a low adult literacy rate with 75% of them who have received no formal education. Only 7.8% went through primary school while 17.10% made it further to SHS.

The Jirapa Municipality has three SHS. These are; St. Francis of Assisi Girls' SHS, Ullo SHS and Jirapa Senior High School. Jirapa Midwifery Training School, St. Joseph's Nursing Training College, and Jirapa Community Health Training School are the health training institutions. Other two tertiary educational study centers are; Jirapa Study Centre of University of Business Integrated Development Studies (UBIDS) and Jirapa Study Centre of University of Development Studies. Information gathered in the municipality indicates that SHS students need career information to benefit from the numerous tertiary institutions in the municipality.

Population

The population for this study consisted of all senior high school students in the Jirapa Municipality. The target population for this study which is the population the researcher would ideally like to generalize his findings (Asamoah-Gyimah & Duodu, 2007) was all senior high school students in the Jirapa Municipality. According to provisional data from GES, Jirapa Municipality (2021), the target population for this study was 3,137 students. The accessible population of the study was 2,249 consisting of form one to form three students in the two mixed schools SHS (Jirapa SHS and Ullo SHS). The only single-sex school (St. Francis of Assisi Girls' SHS) was not included in the study because it would make the study sample female-gender-dominated. The various senior high schools in the Jirapa Municipality and their populations are shown in the table below.

Table 1- Population Distribution of Respondents by School and Gender

Name of School	Class	No. of Boys	No. of Girls	Total
Jirapa Senior High School	SHS1	265	246	511
	SHS2	235	223	458
	SHS 3	189	175	364
St. Francis Assisi Girls	SHS1	0	257	257
	SHS2	0	255	255
	SHS 3	0	376	376
Ullo Senior High School	SHS1	156	149	305
	SHS2	198	146	344
	SHS 3	136	131	267
Total		1,179	1,958	3,137

Source: Jirapa Municipality Education Directorate, 2021/2022

Sampling Procedure

A total sample size of 327 students were selected from the two mixed SHSs with a combined enrollment of 2,249 students. The Table for Determining Sample Size that Krejcie and Morgan (1970) served as a guide for the selection of the sample. Muijs, cited in Delice, (2018) in his caution for sampling maintained that an unbiased selection of the sample is important in quantitative research which has a concern for generalization. Krejcie and Morgan's sample size table is standardized and does not encourage biases in sampling.

The study employed multi-stage sampling methods to select the sample. The purposive sampling procedure was used to select only Jirapa Senior and Ullo Senior High School in the municipality for the study. These schools are mixed and gave a fair representation of gender in the sample size. The proportional sampling method was used to select 194 (59%) and 133(41%) from Jirapa SHS and Ullo SHS respectively for the study. To get an equivalent proportion of student participants from the schools, Babbie's (2001) formula was used to determine the sample for each school, gender, programme of study and religion. The formula is quoted as " $s = (n/N) \times k$ ".

Where 's' is the sample size that was chosen to reflect each gender and shape; (n) refers to the total number of students enrolled in the schools.

The numeric value N denotes the size of the population that is being studied (2,249), and

The letter K denotes the size of the sample (327)

To calculate for the number of boys in Jirapa Senior High School as participants, "s" represents the sample size to include in the study,

$$"n" = 1,333 \text{ students}$$

'N' = 2,249 students

'K' = 327 students

Having Babbies formula as $s = (n/N) \times K$

This implies $s = 1,333/2,248 \times 327$

$s = 435,891/2,249$

$s = 193.8$

Therefore, to the nearest whole number, $s = 194$ students as proportion from Jirapa Senior High School.

This calculation is repeated in getting the proportions for Ullo SHS.

Table 2- Distribution of the Sample Size by Schools

School	Sample from each school
Jirapa Senior High School	194
Ullo Senior High School	133
Total	327

Source: Researcher's field survey, 2021/2022

The selected students were put into a stratum of gender (boys and girls), programmes of study (Business, General Art, General Science, Home Economics, Visual Art and Agricultural Science) and religion (Christianity, Islam and African Traditional Religion) based on the proportional allocation of the sample size in each school. Simple random sampling, thus the lottery method was used to select from each stratum based on the proportions allocated to each stratum. Using the Babbie's formula, samples for gender, programme of study and religion were proportionately calculated. This is presented in Table 3.

Table 3- *Sample Size Distribution by Gender, Programme of Study and Religion*

Variables	Number of students	Percentage (%)
Gender		
Male	171	52.3
Female	156	47.7
Programme of Study		
Business	53	16.2
General Arts	36	11.0
General Science	55	16.8
Home Economics	78	23.9
Visual Arts	52	15.9
Agricultural Science	53	16.2
Religion		
Christianity	235	71.9
Islam	85	26.0
Traditional	7	2.1

Source: Field survey (2022)

The samples from the strata were then combined to create the representative sample of 327 of the population as a whole. In the process, the researcher wrote “Yes” and “No” on a piece of paper and put them in a container and shook them vigorously. Students were then made to pick from the container.

All those who picked “Yes” were part of the study. In handling the issue of non-response, the calculated sample of 327 was proportionately rounded up to 350. As a result, a sample of 350 respondents was used in this research.

Data Collection Instruments

A questionnaire was used to collect data for the study. Kusi (2012) is of the view that it is difficult to use a questionnaire to explore the feeling and experiences of respondents due to the structured nature of the responses. That notwithstanding, the instrument could enquire into the opinions, views and

behaviours of students in the study more than other instruments. Also, data collected through questionnaires are easily analysed compared to qualitative data collected through instruments such as unstructured interviews and observation (Kusi, 2012). Johnson and Christensen (2014), assert that questionnaire is a survey instrument that can gather data about oneself. It was therefore considered a valid and reliable tool for collecting first-hand accurate data from the students. The questionnaire also gave the students greater assurance of anonymity and confidentiality.

This researcher adapted the Career Choice Determinants Questionnaire (CCDQ) by Asantewaa (2020). Also, the Career Decision-Making Difficulties Questionnaire (CDDQ) by Otuei (2017) was also adapted and structured based on Holland's (1970) categorization of personality types and occupational environments. This adaptation was necessary because Otuei's instrument contained an uneven number of items for the various Holland Personality Types and Personality Environments.

The questionnaire was made up of four sections, A to D. Section A took demographic information of the student, section B looked at factors that determine the career choice of senior high school students in the Jirapa Municipality, section C identified the personality types of students in the municipality based on Holland's Personality Types and section D found out the career environment of senior high school students in the municipality based on Holland's categorization of job environment. Apart from section A which took the demographic data about respondents, sections B to D contained items that were measured using the four-point Likert scaled items. The items were scored

as Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1.

Validity of the Instrument

To ensure a higher-level validity, the questionnaire was structured to reflect the research questions and hypotheses. Gall, Borg and Gall as stated in Otuei (2017), are of the view that instrument validation is enhanced through expert judgment, hence to improve the content and face validity, the instruments were given to two experts in the Guidance and Counselling Department and my supervisor who gave his expert judgment about their adequacy. Response to the comments and recommendations from the experts and supervisory scrutiny established the basis for the instruments' validation.

Reliability of the Instrument

Hucks as indicated in (Otuei, 2017) contended that testing for reliability is important as it sets the consistency across the parts of a measuring tool. Consistency of the instrument was achieved through several initiatives. A pre-test of the instrument was carried out at Queen of Peace Senior High school in the Nadowli-Kaleo District to check the reliability of the instrument. Queen of Peace Senior High School was chosen based on the premise that it shared a geographical area with the schools in Jirapa Municipality and has similar characteristics in terms of gender, programmes of study and religion.

Pilot testing

The adapted instrument was pilot-tested with 35 randomly selected students from Queens of Peace SHS within the Nadowli-Kaleo District of the Upper West Region. One named Connelly (2008) in reports claims sample size for pilot studies as 10 percent of the project for the mother research. As a result,

a draft copy of the questionnaire was given to 35 respondents. The students in the Nadowli-Kaleo District were chosen for the pilot testing since they possessed similar attributes as those selected for the actual research and could equally serve as respondents for the study. The pilot testing was done to determine whether the items on the questionnaire portray the intended meanings by the original researchers in the Ghanaian context since the scale was adapted from several authors.

To determine the reliability of the items on the questionnaires, Cronbach Alpha (α) was used to estimate the internal consistency of the sub-sections of the instruments. According to Whitley, (2002) the Cronbach Alpha is the most appropriate measure of reliability when making use of Likert Scales. This helped in determining the internal consistency of the items on the various sub-sections of the questionnaire. An alpha value of .70 or above is considered appropriate (Karagoz, 2016). Details of the reliability coefficients are presented in Table 4.

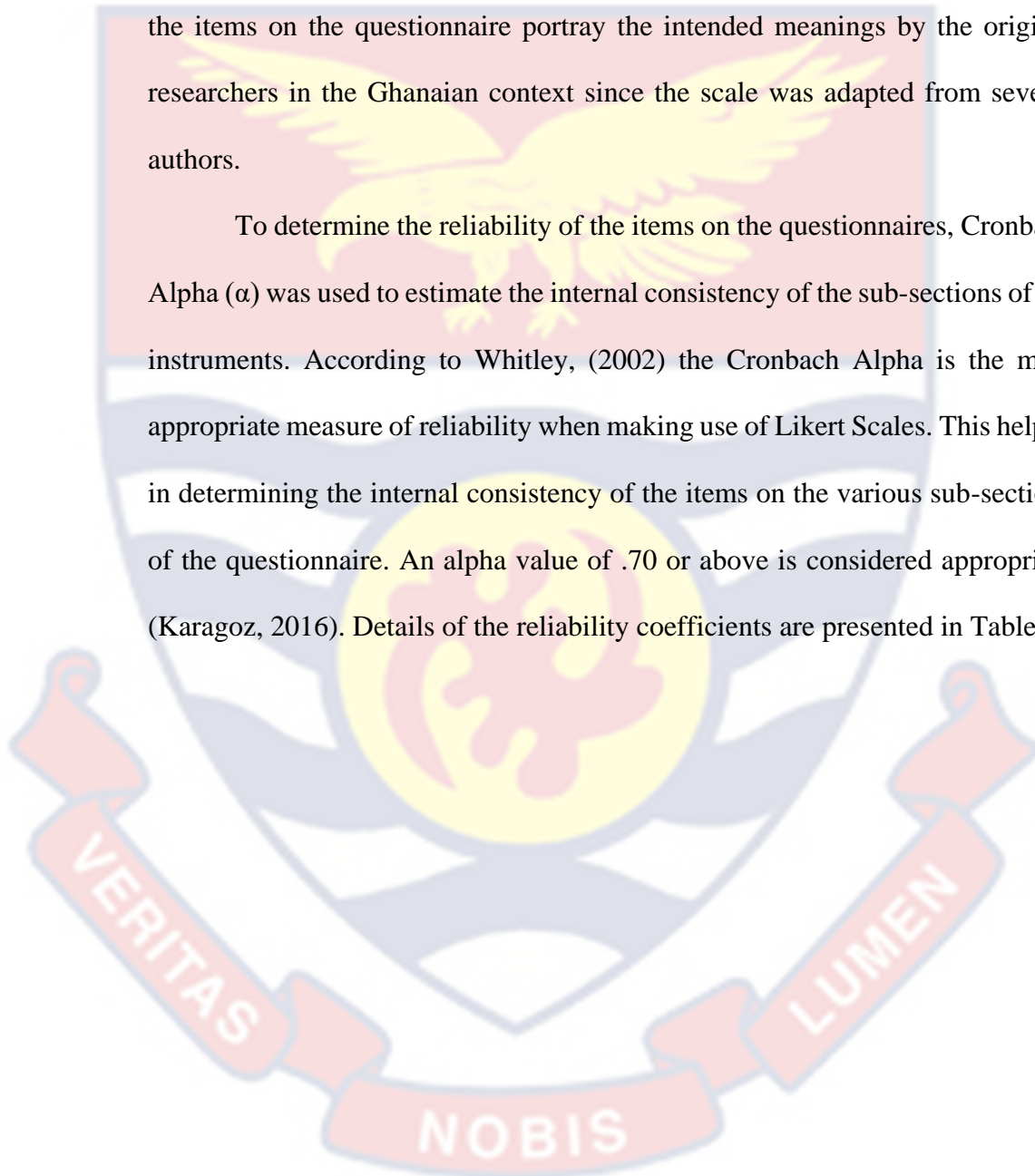


Table 4-Internal Consistency of Scales/Sub-scales

Construct/dimension	No. items	Alpha
Holland Personality Types		
Realistic Personality Types	6	.72
Investigative Personality Types	6	.84
Artistic Personality Types	6	.79
Social Personality Types	6	.76
Enterprising Personality Types	6	.85
Conventional Personality Types	6	.76
Overall	36	0.79
Holland's Career Environment		
Realistic occupational environment	6	.77
Investigative occupational environment	6	.83
Artistic occupational environment	6	.72
Social occupational environment	5	.73
Enterprising occupational environment	6	.85
Conventional occupational environment	6	.73
Overall	35	0.84

The results in Table 4 show that the Cronbach's alpha coefficients ranged from .72 to .85. According to Pallant (2010), a reliability coefficient of .70 or above is appropriate, hence the coefficients obtained for the instrument fell within the accepted range. Aside the aforementioned constructs, the reliability coefficient was also computed for items that sought to measure "factors that determine students' career choice". A Cronbach's alpha coefficient of .77 was obtained for the four (4) items that sought to measure the factors that determine students' choice of career. Generally, since the reliability coefficients of the

various scales were above .70, the scales on the questionnaire can be referred to as highly reliable (Karagoz, 2016).

Data Collection Procedure

An introductory letter and Ethical Clearance Certificate from the Department of Guidance and Counselling and the Ethical Clearance Committee respectively were obtained. Copies of the introductory letters and Ethical Clearance Certificates were given to the heads of the selected senior high schools to seek their approval. This proved the authenticity of this research work to the heads of the schools. Also, the content of the introductory letter, consent form and purpose of the study were read to all the participants who fell within the domain of the study seeking their consent to participation. The essence was to enable the participants to familiarize themselves with the issues for discussion. Nsowah-Nuamah (2005) asserts that explaining the purpose of the study to the respondents is aimed at obtaining meaningful responses that will help in the decision-making process. After explaining the rationale for the study to them, the instruments were administered personally to the respondents in their classrooms with the help of three colleague teachers from each of the schools. This ensured convenient distribution, identification of respondents, clarification of some items and a high retrieval rate of the instruments. The students were allowed ample time to independently respond to the items. The instruments were retrieved that same day for sorting and analysis.

Data Processing and Analysis

After data collection, the completed questionnaires were serially edited, numbered and coded into the Statistical Package for Social Science (SPSS) software version 25.0. The analysis involves coding, organizing, describing,

interpreting, cross tabulating and drawing conclusions. Inferential analysis was done using a confidence interval of 95% and an alpha level of .05. For inferential analysis, the researcher checked for the normality assumptions together with other significant assumptions depending on the type of statistical analysis. In testing for the normality, multiple indicators were used since only one test cannot be relied on. The normal Q-Q plot, together with mean and median were used to test for the normality of the data.

Research Questions 1, 2 and 3

Data for research question 1, 2 and 3 were answered using means and standard deviations. Means scores of 2.5 was chosen as the standard for comparison.

Hypothesis 1

Data on hypothesis 1 was tested using multivariate regression analysis. The predictor variable was personality types which had six dimensions measured on a continuous basis. Similarly, the dependent variable was career choice which was also multi-dimensional. The dependent variable was also measured on a continuous basis. The multivariate regression analysis was deemed appropriate because the dependent variable (career choice) for the aforementioned hypothesis had six dimensions (realistic occupation, investigative occupation, artistic occupation, social occupation and conventional occupation). For an excellent interpretation of the results, it was impossible to put these dimensions together, hence the need for multivariate regression analysis.

Hypotheses 2, 3 and 4

Hypotheses 2, 3 and 4 were tested using one-way multivariate analysis of variance (MANOVA). MANOVA was performed to compare the mean scores for the six dimensions of personality types (realistic personality, investigative

personality, artistic personality, social personality, enterprising personality and conventional personality) in terms of gender, programme of study and religion respectively. Composite scores were computed for each of the dimensions and the means were compared based on gender, programme of study and religion for each of the aforementioned hypotheses. MANOVA was used because of its efficacy in controlling for type I error. MANOVA sets a stringent alpha level called the Bonferroni's adjustments, and this helps to control for type I error. In this study, Bonferroni's adjustment alpha of .008 was used (.05 divided by 6, where 6 represents the number of personality traits). Assumptions surrounding the use of MANOVA such as normality, outliers, linearity and equality of covariance, were duly tested.

Chapter Summary

In summary, this chapter highlighted the methodology employed in the conduct of the study. The descriptive research design was adopted in carrying out the study. The target population of this study comprised SHS students in the Jiripa Municipality. A multi-stage sampling technique was employed to sample respondents for the study. Data was gathered from respondents using a questionnaire. The data collected were analysed using means and standard deviations, multivariate regression, as well as one-way multivariate analysis of variance (MANOVA).

CHAPTER FOUR

RESULTS AND DISCUSSION

The study examined the relationship between Holland's personality types and Senior High School (SHS) students' career choices in the Jirapa Municipality. This investigation was carried out using a descriptive survey design. Out of the three-hundred and fifty (350) questionnaires administered, three-hundred and thirty-three (333) of them were completely responded to and returned. This led to a response rate of 95%. Hence, all the analyses in this chapter were based on 333 respondents. This chapter presents the results and a discussion of the results. In terms of the results, the demographic characteristics of the respondents were presented first, and this was subsequently followed by the results of the research questions and hypotheses as well as the discussion of the results.

Demographic Characteristics of Respondents

The demographic covered the gender, programme of study and religion of respondents. Table 5 provides details on the demographic characteristics of respondents.

Table 5- *Demographic Characteristics of Respondents* (n = 333)

Demographic Factors	Frequency	Percentage (%)
Gender		
Male	170	51.1
Female	163	48.9
Programme of Study		
Business	54	16.2
General Arts	37	11.1
General Science	56	16.8
Home Economics	79	23.7
Visual Arts	53	15.9

Agricultural Science	54	16.2
Religion		
Christianity	241	72.4
Islam	85	25.5
Traditional	7	2.1

Source: Field survey (2022)

As shown in Table 5, the majority of the respondents 170 (51.1%) were males, while the remaining 163 (48.9%) were females. This suggests that there are more male senior high school students compared to female senior high students within Jirapa Municipality. The results in Table 4 further revealed that most of the students 79 (23.7%) pursued Home Economics as a programme of study whereas only 37(11.1%) of students in the Jirapa Municipality pursued General Arts as a programme of study. Regarding the religion of the respondents, majority of the respondents 241(72.4%) were Christians, 85(25.5%) were Muslims whereas only 7(2.1%) of the respondents practiced traditional religion as a way of worship.

Results and Discussion of Main Data

This section presents the results and discussion of the main data. The analysis was done in addressing the following definite study aims. The subsequent paragraphs present analysis of the results of the study together with the findings in line with the research questions.

Research Question 1

What factors determine the career choices of senior high school students' in the Jirapa Municipality?

This purpose of this research question was to investigate the variables that influence senior high school students' career choices in the Jirapa Municipality. Descriptive statistics (i.e., means and standard deviation) helped

in analysing the data collected on this research question. Considering the scale used (i.e., Strongly Agree-4, Agree-3, Disagree-2, Strongly Disagree-1), a mid-point of 2.5 served as the basis for comparison. Thus, in interpreting the score of a particular respondent, the mean score of the respondents is compared with 2.5 (thus, $[1+2+3+4]/4 = 2.5$). That is, a mean value exceeding 2.5 implies that a greater proportion of the respondents agreed with the statement. Conversely, a mean value below 2.5 means that a greater proportion of the respondents disagreed with the statement. Table 6 outlines the details of the results.

Table 6- *Factors that Determine Students' Career Choices*

Statements	Mean	SD
My family members (father, mother, siblings) influence my career choice	2.9279	1.16716
Career guidance and counselling programmes helped me to choose my career	2.3904	1.14235
I made my career choice based on the advice, encouragement and choices of my friends	2.6153	1.08368
Information from mass media tools such as television, internet, and newspapers influenced my career choice	2.4054	1.07864
Overall Mean	2.509	0.547

Source: Field survey (2022); SD- Standard Deviation

As shown in Table 6, all the respondents agreed to the fact that several factors influenced their choices of careers ($M = 2.51$, $SD = 0.55$). Specifically, most of the respondents reported that “the influence from family members” informed their career choices ($M = 2.93$, $SD = 1.18$). The respondents also agreed to the fact that “advice and encouragement from friends” were factors that influenced their choices of career ($M = 2.62$, $SD = 1.08$). Respondents however reported “career guidance and counselling programmes” ($M = 2.39$, $SD = 1.14$) as well as “Information from the mass media” ($M = 2.41$, $SD = 1.08$) as not in

any way influenced their choices of career.

The findings of the study revealed that several factors generally informed students' choice of careers ($M= 2.51$, $SD = 0.55$). Some of these factors include the influence of family members as well as advice and encouragement from friends. It was however discovered that factors such as "career guidance and counselling programmes" as well as "mass media information" did not inform students' career choices. The findings of the study suggest that SHS students in the Jirapa Municipality often consider the counsel of their immediate family members as well as encouragement from friends when deciding on their careers. The study however discovered that career guidance and counselling programmes, as well as information from the mass media, did not influence students' career choices.

Research Question 2

What are the personality types exhibited by SHS students in the Jirapa Municipality?

This research question sought to find out the personality types of SHS students in the Jirapa Municipality. Means and standard deviations helped in analysing the data gathered on this research question. In using a four-point likert type scale (i.e., Strongly Agree-4, Agree-3, Disagree-2, Strongly Disagree-1), a mid-point of 2.5 was used to judge the responses of the respondents. Based on this criterion mean values exceeding 2.5 indicated that a greater proportion of the respondents agreed with the statement. Conversely, an average below 2.5 implies that the respondents disagreed with the statement. A mean of 2.5 however depicted that, a greater proportion of the respondents were neutral about

the statement. The mean of means was estimated for each of the dimensions of personality and the analysis are presented in Table 7.

Table 7- Personality Types

Types of Personality Traits	Mean	SD
Realistic personality trait	2.552	0.734
Investigative personality trait	2.607	0.648
Artistic personality trait	2.598	0.742
Social personality trait	2.992	0.672
Enterprising personality trait	2.626	0.760
Conventional personality trait	2.592	0.701

Source: Field survey (2022); SD- Standard Deviation.

Respondents exhibited all personality traits as displayed in Table 7. Topmost among these personality traits included social personality trait ($M = 2.99$, $SD = 0.67$), enterprising personality trait ($M = 2.63$, $SD = 0.76$), investigative personality trait ($M = 2.61$, $SD = 0.61$), artistic personality trait ($M = 2.60$, $SD = 0.74$), conventional personality trait ($M = 2.59$, $SD = 0.70$) as well as realistic personality trait ($M = 2.55$, $SD = 0.73$). By implication, the findings of this study suggest that SHS students within the Jirapa Municipality were predominantly dominated by social personality traits. On the contrary, SHS students within the Municipality exhibited realistic personality traits.

Research Question 3

What are the career choices of SHS students in the Jirapa Municipality?

This research question intended to examine the career choices of SHS students in the Jirapa Municipality. Means and standard deviations helped in analysing the data collected on the research question. This was because the items were measured on a four-point scale (i.e., Strongly Agree-4, Agree-3, Disagree-

2, Strongly Disagree-1), and a mid-point of 2.5 served as the basis for comparison. Essentially, an average score exceeding 2.5 indicates that a greater proportion of the respondents agreed with the statement. Conversely, an average score below 2.5 means that a greater proportion of the respondents disagreed with the statement and vice versa. Table 8 presents the results.

Table 8- *Career Choices of SHS Students*

Carer Choice	Mean	SD
Realistic occupation	2.484	0.821
Investigative Occupation	2.612	0.662
Artistic Occupation	2.414	0.768
Social Occupation	2.699	0.604
Enterprising Occupation	2.532	0.597
Conventional Occupation	2.446	0.706

Source: Field survey (2022); SD- Standard Deviation.

Results in Table 8 revealed that respondents exhibited interest in several careers. Topmost among these choices include social related occupations ($M = 2.70$, $SD = 0.60$), investigative occupation ($M = 2.61$, $SD = 0.66$) as well as enterprise-related occupations ($M = 2.53$, $SD = 0.60$). The results further revealed that respondents had less interest in realistic occupations ($M = 2.48$, $SD = 0.82$), conventional occupations ($M = 2.44$, $SD = 0.71$) as well as artistic occupations ($M = 2.41$, $SD = 0.77$).

The findings of the study revealed that SHS students in the Jiripa Municipality had interest in many careers. Some of these career choices include social-related occupations, investigative occupations and enterprise-related occupations. Individuals who engage in social-related occupations often offer social and humanitarian services to the general public. Such individuals take on

occupations such as counselling, offering health assistants to patients, engaging in social work, teaching as well as serving as human resource managers. Similarly, individuals who engage in investigative occupations take to professions such as journalism, whereas those who engage in enterprise-related occupations take to professions such as marketing managers or engaging in business activities.

Hypotheses Testing

The study tested four (4) hypotheses. Before testing these hypotheses, the normality assumption, which was fundamental to all parametric assumptions was tested using mean, median, 5% trimmed mean, and the normal Q-Q plot. Details of the results are presented in Tables 9 and 10.

From Table 9, the mean scores, 5% trimmed mean and median for a realistic personality trait, investigative personality trait, artistic personality trait, social personality trait, enterprising personality trait and conventional personality trait were equivalent, and this suggests a normally distributed data. These results were equally confirmed by the histogram and Q-Q plots of the variables (see Appendix D). The plots indicate the data on the variables were linear and there were no major outliers (Appendix D).

Table 9- Test for Normality (Personality Types)

Parameters	Real.	Inves.	Art.	Soc.	Ent.	Con.
Mean	15.312	15.639	15.586	17.952	15.757	15.549
Standard deviation	4.405	3.886	4.451	4.032	4.563	4.206
5% Trimmed mean	15.342	15.751	15.657	18.137	15.711	15.644
Median	15.000	16.000	16.000	19.000	16.000	16.000

Source: Field survey (2022)

Note:

Real. – Realistic Personality Trait

Inves. – Investigative Personality Trait

Art. – Artistic Personality Trait
Soc. – Social Personality Trait
Ent. – Enterprising Personality Trait
Con – Convention Personality Trait

Table 10- *Test for Normality* (Career Choice)

Parameters	R.O.	I.O.	A.O.	S.O	E.O.	C.O.
Mean	14.907	15.673	14.484	13.493	15.192	14.676
Standard deviation	4.956	3.970	4.609	3.021	3.581	4.237
5% Trimmed mean	14.825	15.761	14.491	13.561	15.237	14.724
Median	15.000	16.000	14.000	13.000	15.000	15.000

Source: Field survey (2022)

Note:**R.O – Realistic Occupation****I.O – Investigative Occupation****A.O – Artistic Occupation****S.O – Social Occupation****E.O – Enterprising Occupation****C.O – Convention Occupation**

As presented in Table 10, the mean, median, and 5% trimmed mean of realistic occupation, investigative occupation, artistic occupation, social occupation, enterprising occupation and conventional occupation were approximately equal. In line with this, the distribution of scores of the aforementioned variables followed a normally distribution (Pallant, 2010). Additionally, the normal Q-Q plots and histograms for all the variables were also examined (see Appendix D). The plots indicate the data on the variables were linear and there were no major outliers (Appendix D).

Hypothesis 1

H₀: Holland's personality types will not significantly predict students' career choices.

H₁: Holland's personality types will significantly predict students' career choices.

This hypothesis found out whether Holland's typology had effect on students' career choices. Multivariate multiple regression analysis was used to test this hypothesis. The predictor variable (Personality types) had six dimensions and this was measured on a continuous basis. Similarly, the criterion variable (career choice) also had six dimensions and this was equally measured on a continuous scale.

Also, it is important to stress that certain specific assumptions underlying the use of multivariate regression analysis were explored to ensure that this statistical procedure could be used. From the results in Tables 9 and 10, Appendix D, and Appendix E, assumptions such as normality, linearity and homoscedasticity were duly satisfied for the conduct of this analysis. Table 11 presents details of the results.

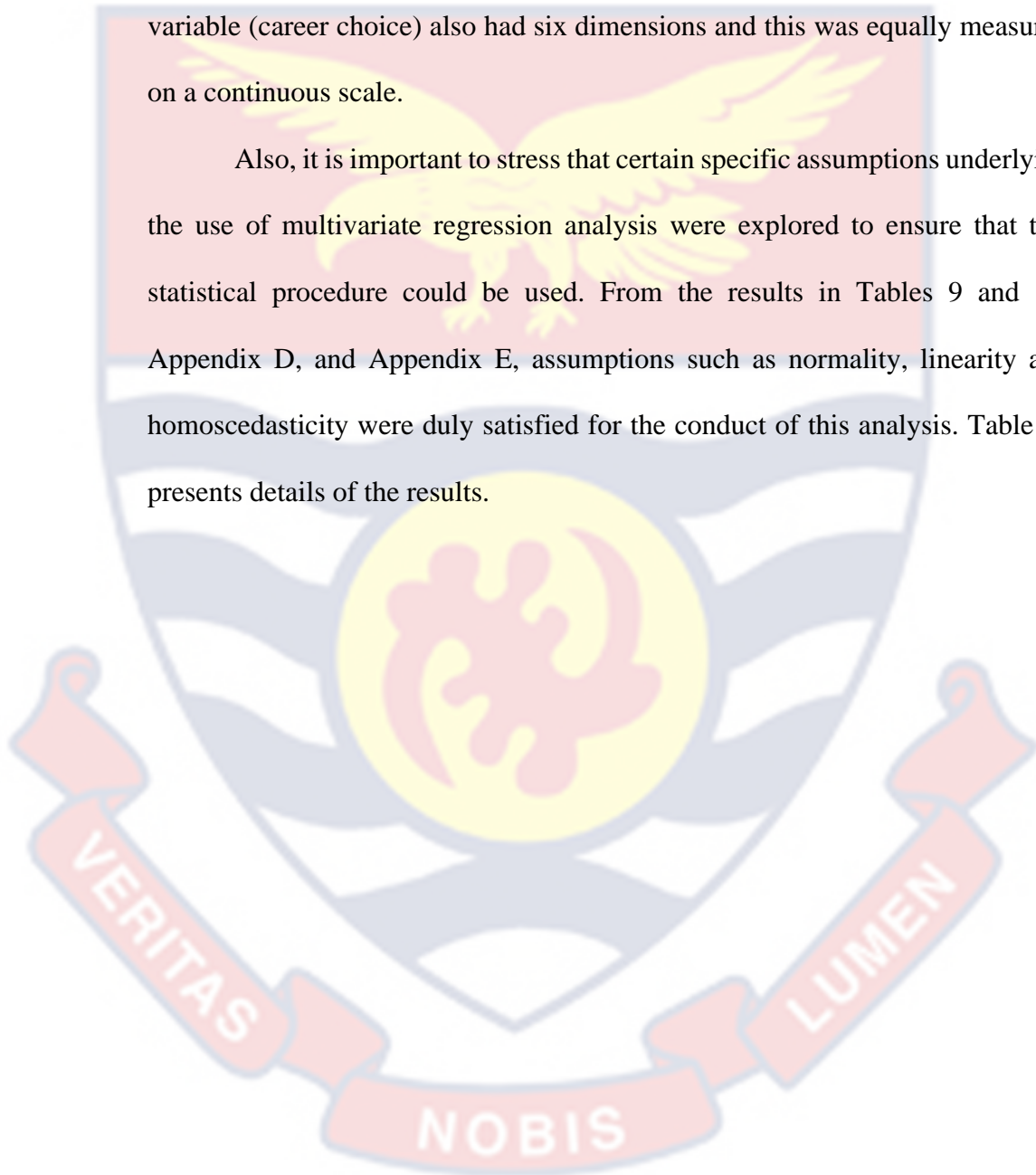


Table 11-*Influence of Holland Personality Type on Students 'Career Choice*

Dependent Variable	Parameter	B	Std. Error	T	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Realistic occupation	Intercept	3.964	1.370	2.892	.004	1.268	6.659
	Realistic Personality	.542	.059	9.207	.000	.426	.658
	Investigative Personality	.175	.066	2.657	.008	.046	.305
	Artistic Personality	.146	.061	2.402	.017	.026	.265
	Social Personality	-.198	.066	-2.992	.003	-.328	-.068
	Enterprising Personality	.029	.057	.509	.611	-.084	.142
	Conventional Personality	.046	.063	.728	.467	-.078	.170
Investigative Occupation	Intercept	3.763	1.014	3.710	.000	1.768	5.758
	Realistic Personality	.154	.044	3.541	.000	.069	.240
	Investigative Personality	.587	.049	12.026	.000	.491	.683
	Artistic Personality	.020	.045	.446	.656	-.068	.108
	Social Personality	-.062	.049	-1.273	.204	-.158	.034
	Enterprising Personality	.059	.043	1.391	.165	-.025	.143
	Conventional Personality	.015	.047	.321	.748	-.077	.107
Artistic Occupation	Intercept	.595	1.059	.562	.575	-1.489	2.678
	Realistic Personality	.109	.046	2.401	.017	.020	.199
	Investigative Personality	-.096	.051	-1.878	.061	-.196	.005
	Artistic Personality	.669	.047	14.273	.000	.577	.761
	Social Personality	-.018	.051	-.361	.719	-.119	.082
	Enterprising Personality	.139	.044	3.121	.002	.051	.226
	Conventional Personality	.092	.049	1.891	.060	-.004	.188
Social Occupation	Intercept	5.341	.913	5.848	.000	3.544	7.137
	Realistic Personality	.033	.039	.848	.397	-.044	.111
	Investigative Personality	-.006	.044	-.133	.894	-.092	.081

	Artistic Personality	-.076	.040	-1.881	.061	-.156	.003
	Social Personality	.345	.044	7.840	.000	.259	.432
	Enterprising Personality	.065	.038	1.697	.091	-.010	.140
	Conventional Personality	.109	.042	2.598	.010	.027	.192
Enterprising Occupation	Intercept	2.750	.960	2.866	.004	.862	4.637
	Realistic Personality	-.010	.041	-.241	.809	-.091	.071
	Investigative Personality	.095	.046	2.046	.042	.004	.185
	Artistic Personality	.137	.042	3.221	.001	.053	.220
	Social Personality	.139	.046	3.016	.003	.048	.230
	Enterprising Personality	.193	.040	4.786	.000	.113	.272
	Conventional Personality	.222	.044	5.017	.000	.135	.309
Conventional Occupation	Intercept	.418	1.027	.407	.684	-1.602	2.438
	Realistic Personality	-.034	.044	-.782	.435	-.121	.052
	Investigative Personality	.118	.049	2.377	.018	.020	.215
	Artistic Personality	.186	.045	4.083	.000	.096	.275
	Social Personality	.001	.049	.024	.981	-.096	.099
	Enterprising Personality	.081	.043	1.878	.061	-.004	.166
	Conventional Personality	.563	.047	11.918	.000	.470	.656

Source: Field Survey (2022); *Significant, $p < .05$.

R^2 of realistic occupation = .413, R^2 of investigative occupation = .505, R^2 of artistic occupation = .600.

R^2 of social occupation = .307, R^2 of enterprising occupation = .456, R^2 of conventional occupation = .555.

The results in Table 11 show that realistic personality, investigative personality, artistic personality, social personality, enterprising personality and conventional personality, all together explained 41.3% of the variance in realistic occupation. The results further revealed that realistic personality ($B = .54, t = 9.21, p < .001$), investigative personality ($B = .18, t = 2.66, p = .008$), and artistic personality ($B = .15, t = 2.40, p = .01$) were significant positive predictors of realistic occupation. The results imply that a unit increase in realistic, investigative and artistic personality traits would equally lead to a unit increase in realistic occupation. The result however revealed that social personality trait was a significant negative predictor of realistic occupation. This result implies that a unit increase in social personality traits would lead to a unit decrease in realistic occupation.

The implication of this result suggests that students who have realistic, investigative and artistic personality traits are likely to take up realistic occupations that involve planning, designing and construction. Realistic occupation often allows students to work on activities that involve the use of their hands and the use of machines. Such students prefer to operate electronic equipment and also repair faulty electrical appliances whenever they have the opportunity to do so. The findings of this study also imply that students who have social personality traits are less likely to choose realistic-related occupations.

Similarly, the results in Table 11 indicate that realistic, investigative, artistic, social, enterprising, and conventional personality traits, all together explained 50.5% of the variance in investigative occupation. It was further evident in the results that realistic personality traits ($B = .15, t = 3.54, p < .001$) and investigative personality traits ($B = .59, t = 12.03, p < .001$) were significant positive predictors of investigative

occupation. The results imply that a unit increase in realistic and investigative personality traits would lead to a respective unit increase in investigative occupation. By implication, the finding of this study suggests that students who possess realistic and investigative personality traits are more likely to engage themselves in investigative occupations. Such individuals are likely to take up occupational roles in the area of investigative journalism, judicial services, and criminal investigation, among others.

From Table 11, the study further revealed that realistic, investigative, artistic, social, enterprising, and conventional personality traits, all together explained 60% of the variance in artistic occupation. It was also evident in the results that realistic personality trait ($B = .11, t = 2.40, p = .017$), artistic personality trait ($B = .67, t = 14.27, p < .001$) and enterprising personality trait ($B = .14, t = 3.12, p = .002$) were significant positive predictors of artistic occupation. Thus, a unit increase in realistic, artistic and enterprising personality traits would lead to a respective increase in students' artistic occupations. The implication of these results suggests that students who are dominated by realistic, artistic and social personality traits are more likely of choosing artistic occupations that involve creative arts. Such individuals have the desire to take up occupations such as musician, actor, graphic designer, artist, poet among others.

In furtherance, the results in Table 11 revealed that realistic, investigative, artistic, social, enterprising, and conventional personality traits, all together explained 30.7% of the variance in social occupation. The results also indicate that social personality traits ($B = .35, t = 7.84, p < .001$) as well as conventional personality ($B = .12, t = 2.60, p < .010$) were significant positive predictors of social occupation. That is to say, a unit increase in social and conventional personality traits would to a

respective unit increase in students' social occupations. The implication of this result suggests that students who possess social and conventional personality traits are more likely of venturing into social occupations. Individuals who engage in social-related occupations often offer social and humanitarian services to those in need of such services. Such individuals take on occupations such as counselling, offering health assistance to patients, engaging in social work, teaching as well as serving as human resource managers in an organisation.

As shown in Table 11, the study further revealed that realistic, investigative, artistic, social, enterprising, and conventional personality traits, all together accounted for 45.6% of the variance in enterprising occupations. The results further revealed that investigative personality ($B = .10, t = 2.05, p = .042$), artistic personality ($B = .14, t = 3.22, p = .001$), and social personality ($B = .14, t = 3.02, p = .003$) were significant positive predictors of enterprising occupation. The results imply that a unit increase in investigative, artistic, and social personality traits would lead to a respective unit increase in students' enterprising occupations. By implication, the findings of this study suggest that students who are dominant with investigative, artistic and social personality traits are more likely of venturing into enterprising occupations. Such individuals have aspirations of taking up occupations such as business tycoons, marketing managers, and politicians, among others.

The results in Table 11 finally revealed that realistic, investigative, artistic, social, enterprising, and conventional personality traits, all together accounted for 55.5% of the variance in conventional occupations. The results also indicate that investigative personality ($B = .12, t = 2.38, p = .018$), artistic personality ($B = .19, t = 4.08, p < .001$), and conventional personality ($B = .56, t = 11.91, p < .001$) were

significant positive predictors of conventional occupation. Thus, a unit increase in investigative, artistic and conventional personality traits would lead to a unit increase in students' conventional occupations. The implication of this result suggests that students who possess investigative, artistic and conventional personality traits are more likely of venturing into conventionally related occupations. Individuals who have conventional occupational interests enjoy work activities that follow a set of procedures and routines. That is to say, such individuals prefer working with data and details rather than using their ideas. Examples of such occupations include administrative assistants, accountants, and bookkeepers, among others.

The findings of the study revealed that Holland's personality type was a significant predictor of students' career choices. Thus, realistic personality, investigative personality and artistic personality were significant positive predictors of realistic occupation. On the contrary, social personality trait was a significant negative predictor of realistic occupation. Similarly, the findings of the study revealed that realistic personality traits and investigative personality traits were respective significant positive predictors of investigative occupation. Regarding the issue of artistic occupation, the findings of this study revealed that realistic personality traits, artistic personality and enterprising personality traits were respective significant positive predictors of artistic occupation. The findings of the study further revealed that social personality traits as well as conventional personality were significant positive predictors of social occupation. The study also indicated that investigative personality, artistic personality, and social personality were respective significant positive predictors of enterprising occupation. Concerning the issue of conventional occupation, the findings of the study revealed that investigative personality, artistic

personality, as well as conventional personality was respective significant positive predictors of conventional occupation. Put together, the findings of this current study revealed a positive relationship between Holland's personality types and students' career choices.

Hypothesis 2

H₀: There is no statistically significant gender difference in the personality types of SHS students and their career choices in the Jirapa Municipality.

H₁: There is a statistically significant gender difference in the personality types of SHS students and their career choices in the Jirapa Municipality.

Hypothesis 2 sought to examine gender differences in personality types and their career choices as exhibited by respondents. In testing this hypothesis, a multivariate analysis of variance (MANOVA) analysis was conducted. The independent variable was gender which had two levels (i.e., male and female). The dependent variable on the other hand was the six dimensions of personality types namely: realistic personality, investigative personality, artistic personality, social personality, enterprising personality and conventional personality. All the dependent variables used in this hypothesis were measured on an interval scale. Before the analysis, the normality of the variables was checked (see Tables 9 and 10 as well as Appendix D). Subsequently, the homogeneity of variance-covariance matrices assumption was checked. The result of Box's M test for variance-covariance was statistically significant, Box's M = 106.929, $F(21, 401464.370) = 4.994$, $p = .000$. This indicates that the assumption was not met hence, the Pillai's Trace test was used. Results of the multivariate test are presented in Appendix F.

As shown in Appendix F, the multivariate test for personality differences with respect to gender revealed a substantial variation in the combined personality types, $F(5, 326) = 7.77, p = .000$; partial eta squared = .13; Pillai's Trace = .13. Based on the result in Table 12, there is the need to examine gender differences on each of the dimensions of personality using the univariate tests. Separate univariate ANOVAs were performed using Bonferroni's alpha correction of .008. Table 12 presents the results of the univariate tests.

Table 12- *Tests of Between-Subjects Effects*

Source	Dependent Variable	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	Realistic	1	77770.383	4361.655	.000	.929
	Investigative	1	81297.911	5472.761	.000	.943
	Artistic	1	80952.484	4117.143	.000	.926
	Social	1	107450.306	6807.334	.000	.954
	Enterprising	1	82736.775	4000.207	.000	.924
	Conventional	1	80616.577	4646.050	.000	.933
Gender	Realistic	1	539.632	30.265*	.000	.084
	Investigative	1	95.749	6.446	.012	.019
	Artistic	1	68.592	3.488	.063	.010
	Social	1	172.565	10.933*	.001	.032
	Enterprising	1	65.183	3.152	.077	.009
	Conventional	1	131.040	7.552*	.006	.022
Error	Realistic	331	17.830			
	Investigative	331	14.855			
	Artistic	331	19.662			
	Social	331	15.784			
	Enterprising	331	20.683			
	Conventional	331	17.352			
Total	Realistic	333				
	Investigative	333				
	Artistic	333				
	Social	333				
	Enterprising	333				
	Conventional	333				

Source: Field Survey (2022); *Significant, $p < .008$.

The findings as shown in Table 12, indicated that male and female students had significantly different levels of realistic personality, with $F(1, 331) = 30.265, p$

=.000 and partial eta squared =.08. In light of this, it may be deduced that gender accounts for 8% of the variation in the realistic personality characteristic shown by respondents. In addition, the findings demonstrated a statistically significant gender gap in terms of the social personalities of male and female students, with $F(1, 331) = 10.933$, $p = .001$ and partial eta squared =.03.

This suggests that gender accounts for 3% of the variation in the social personality attribute among the people who responded to the survey. In a similar vein, the findings presented in Table 12 demonstrated that there is a statistically significant gap between the conventional personalities of male and female students ($F(1, 131) = 7.552$, $p = .006$; partial eta squared =.02).

This shows that gender accounts for 2% of the variation in traditional personality characteristics shown by respondents. Results however showed no statistically significant gender difference in investigative personality trait, artistic personality trait and enterprising personality trait ($p > .008$). This implies that male and female students exhibit similar traits in relation to investigative, artistic and enterprising personalities. The descriptive statistics are presented in Table 13.

Table 13- *Descriptive Statistics*

Dimensions	Gender	N	Mean	Std. Deviation
Realistic Personality	male	170	16.5588	4.12663
	female	163	14.0123	4.32048
	Total	333	15.3123	4.40479
Investigative Personality	male	170	16.1647	3.30267
	female	163	15.0920	4.35580
	Total	333	15.6396	3.88570
Artistic Personality	male	170	15.1412	4.49234
	female	163	16.0491	4.37276
	Total	333	15.5856	4.45081
Social Personality	male	170	17.2471	4.02479
	female	163	18.6871	3.91818
	Total	333	17.9520	4.03196
Enterprising Personality	male	170	15.3235	5.17802
	female	163	16.2086	3.78015
	Total	333	15.7568	4.56258
Conventional Personality	male	170	14.9353	4.19375
	female	163	16.1902	4.13589
	Total	333	15.5495	4.20643

Source: Field Survey (2022)

From the results in Table 13, males ($M = 16.56$, $SD = 4.13$) exhibited more of realistic personality trait than females ($M = 14.01$, $SD = 4.32$). On the contrary, females ($M = 18.69$, $SD = 3.92$) displayed more of social personality traits compared to their male counterparts ($M = 17.24$, $SD = 4.02$). Similarly, female students ($M = 16.19$, $SD = 4.14$) exhibited more of conventional personality trait relative to their male counterparts ($M = 14.93$, $SD = 4.19$). The results imply that while males were dominated by realistic personality traits, females were dominated by both social and conventional personality traits respectively. Based on this result, the null hypothesis which stated that “There is no statistically significant gender difference in the personality types of SHS students in the Jirapa Municipality” was rejected in favour of the alternate hypothesis.

Hypothesis 3

H₀: There is no statistically significant difference in SHS students' personality types in career choice on the basis of programme of study.

H₁: There is a statistically significant difference in SHS students' personality types in career choice on the basis of programme of study.

The purpose of this hypothesis was to determine whether significant differences exist in students' personality types in career choice with regards to their programme of study. The mean scores of personalities for the various programme of studies were compared. To test this hypothesis, a multivariate analysis of variance (MANOVA) was performed to liken the mean scores in terms of programme of study for the six dimensions of personality types (realistic personality, investigative personality, artistic personality, social personality, enterprising personality, and conventional personality). All the dependent variables used in this hypothesis were measured on an interval scale. Before the analysis, the normality test was checked (see Appendix D). Subsequently, the homogeneity of variance-covariance matrices assumption was also checked. The result of Box's M test for variance-covariance was statistically significant, Box's M = 475.957, $F(105, 127713.401) = 4.313$ $p = .000$. Since the equality of covariance violated the variance-covariance matrices assumption, the Pillai's Trace test was reported. Results of the multivariate test are presented in Appendix F

From Appendix F, the multivariate test for personality differences with programme of study revealed a significant difference in the combined personality types, $F(30, 1630) = 8.070$, $p = .000$; partial eta squared = .13; Pillai's Trace = .13. Based on the result in Table 14, there is the need to examine whether differences exist

in each of the dimensions of personality with respect to programme of study. To achieve this, univariate analysis of variance (ANOVA) was performed using Bonferroni's alpha correction of .008. Table 14 displays the outcome of the univariate tests.

$F(5, 327) = 4.006, p = .002$; partial eta squared = .058 are the results that show a statistically significant difference in investigative personality among students who pursue different forms of programmes. These results are presented in Table 14, and they show that there is a difference in investigative personality among students who pursue different types of programmes. This implies that programme of study explains 5.8% of the variance in the investigative personality of respondents. The results of the study further revealed a statistically significant difference in artistic personality among students who pursue different forms of programmes, ranging from General Arts to Agricultural Science, $F(5, 327) = 46.434, p = .000$; partial eta squared = .42.

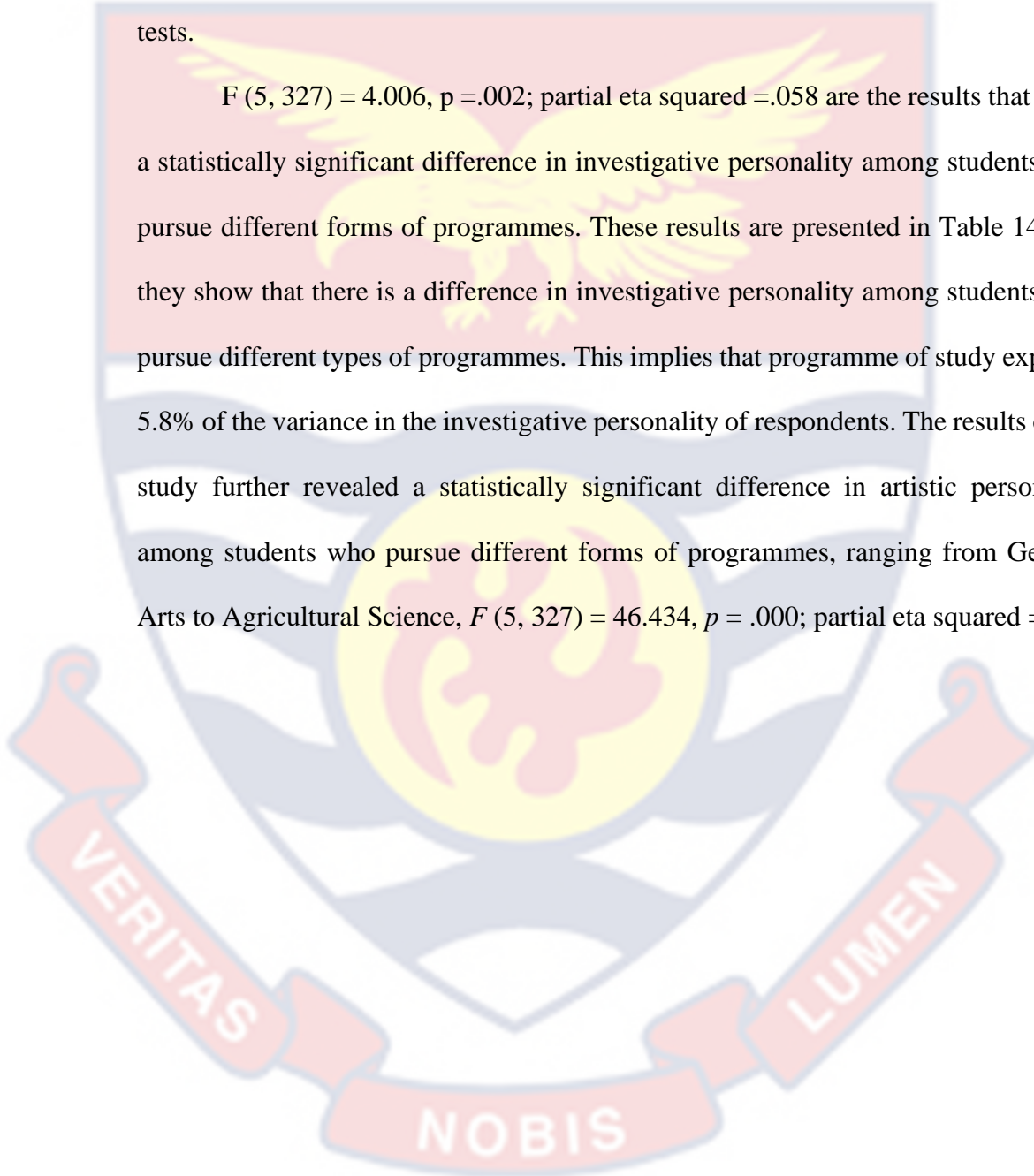


Table 14- *Tests of Between-Subjects Effects (Univariate Test)*

Source	Dependent Variable	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	Realistic	1	75005.249	36.786	.000	.923
	Investigative	1	78381.989	126.316	.000	.943
	Artistic	1	6094.007	169.625	.000	.952
	Social	1	101824.003	372.085	.000	.958
	Enterprising	1	8679.044	54.286	.000	.934
	Conventional	1	6617.544	540.455	.000	.944
Programme of study	Realistic	5	2.277	.219	.052	.033
	Investigative	5	7.862	.006	.002	.058
	Artistic	5	46.145	5.434	.000	.415
	Social	5	76.135	12.752	.000	.163
	Enterprising	5	76.696	5.368	.000	.200
	Conventional	5	70.486	19.560	.000	.230
Error	Realistic	327	9.052			
	Investigative	327	4.445			
	Artistic	327	1.762			
	Social	327	3.812			
	Enterprising	327	6.905			
	Conventional	327	3.829			
Total	Realistic	333				
	Investigative	333				
	Artistic	333				
	Social	333				
	Enterprising	333				
	Conventional	333				

Source: Field Survey (2022); *Significant, $p < .008$.

This suggests that programme of study explains 42% of the variance in artistic personality. Similarly, the results in Table 14 revealed a statistically significant differences in three other dimensions of personality type; social personality, $F(5, 327) = 12.752$, $p = .000$; partial eta squared = .16, enterprising personality, $F(5, 327) = 16.368$, $p = .000$; partial eta squared = .2, and conventional personality, $F(5, 327) = 19.560$, $p = .000$; partial eta squared = .23 among students who pursue different forms

of programmes, ranging from General Arts to Agricultural Science. This suggests that programme of study respectively explains 16%, 20% and 23% of the variances in social personality, enterprising personality and conventional personality.

The results in Table 14 however revealed no statistically significant difference in realistic personality among students who pursue different forms of programmes, ranging from General Arts to Agricultural Science, ($p > .008$). The implication of this result suggests that SHS students who pursue different programmes in the Jirapa Municipality exhibit similar traits in relation to realistic personality. The descriptive statistics are presented in Table 15.

From the results in Table 15, students who pursued General Arts as a programme of study ($M = 17.73$, $SD = 3.34$) exhibited the highest form of investigative personality trait compared with General Science students ($M = 14.57$, $SD = 3.39$) who exhibited the least form of investigative personality traits. Similarly, students who offered Visual Arts ($M = 19.57$, $SD = 2.71$) exhibited more artistic personality traits relative to Agricultural Science students ($M = 11.54$, $SD = 3.60$) who exhibited the least form of artistic personality traits.

The results in Table 15 also showed that Home Economics students ($M = 19.52$, $SD = 3.02$) exhibited the highest form of social personality traits compared to Agricultural Science students ($M = 14.93$, $SD = 5.42$) who exhibited the least form of social personality traits. Again, most of the students who took Visual Art as a programme of study ($M = 17.81$, $SD = 6.59$) displayed more enterprising personality traits relative to Agricultural students ($M = 12.70$, $SD = 2.91$) who displayed the least form of enterprising personality traits.

Table 15- *Descriptive Statistics*

Dimensions	Programme of Study	N	Mean	SD
Realistic Personality	Business	54	15.1296	3.56633
	General Arts	37	15.8919	4.08781
	General Science	56	13.9286	4.67433
	Home Economics	79	15.0633	3.64214
	Visual Art	53	16.5094	3.62482
	Agricultural Science	54	15.7222	6.19622
	Total	333	15.3123	4.40479
Investigative Personality	Business	54	15.4074	3.09301
	General Arts	37	17.7297	3.33873
	General Science	56	14.5714	3.93057
	Home Economics	79	16.1519	2.99610
	Visual Art	53	15.6604	3.16193
	Agricultural Science	54	14.7778	5.73854
	Total	333	15.6396	3.88570
Artistic Personality	Business	54	15.2778	3.38931
	General Arts	37	16.3514	4.28315
	General Science	56	12.3571	3.72914
	Home Economics	79	17.8228	3.08744
	Visual Art	53	19.5660	2.71399
	Agricultural Science	54	11.5370	3.59619
	Total	333	15.5856	4.45081
Social Personality	Business	54	18.2037	3.52018
	General Arts	37	19.3243	3.71225
	General Science	56	16.7321	3.81619
	Home Economics	79	19.5190	3.01645
	Visual Art	53	18.7736	2.39102
	Agricultural Science	54	14.9259	5.41783
	Total	333	17.9520	4.03196
Enterprising Personality	Business	54	16.6111	3.35011
	General Arts	37	17.1351	3.88131
	General Science	56	13.0893	3.32088
	Home Economics	79	17.1266	3.71196
	Visual Art	53	17.8113	6.59270
	Agricultural Science	54	12.7037	2.91146
	Total	333	15.7568	4.56258
Conventional Personality	Business	54	17.4630	3.66376
	General Arts	37	16.4865	4.72947
	General Science	56	13.8036	4.01098
	Home Economics	79	16.5316	3.18182
	Visual Art	53	17.1132	3.00423
	Agricultural Science	54	11.8333	4.03171
	Total	333	15.5495	4.20643

Source: Field Survey (2022); SD: Standard Deviation.

Evidence from Table also 15 indicates that students who pursued Business as a programme of study ($M = 17.46$, $SD = 3.66$) exhibited the highest form of conventional personality traits whereas Agricultural Science students ($M = 11.83$, $SD = 4.03$) exhibited the least form of conventional personality traits.

This result implies that, while Visual Arts students were dominated by artistic and enterprising personality traits, General Arts students, Home Economics students, and Business students were dominated by investigative, social and conventional personality traits respectively. Based on this result, the null hypothesis which stated that “There is no statistically significant difference in SHS students’ personality types with respect to programme of study” was rejected in favour of the alternate hypothesis.

Hypothesis 4

H₀: There is no statistically significant difference in SHS students’ personality types and their career choices on the basis of religion.

H₁: There is a statistically significant difference in SHS students’ personality types and their career choices on the basis of religion.

The purpose of this hypothesis was to investigate whether there are distinctive personality patterns that can be attributed to one’s choice of a religion. Multivariate analysis of variance (MANOVA) was carried out. The religion was the independent variable, and it had three different levels (i.e., Christianity, Islam and Traditional religion). The six dimensions of personality types, namely realistic personality, investigative personality, artistic personality, social personality, enterprising personality, and conventional personality, used as the dependent variable in this study. When testing this hypothesis, all of the dependent variables that were employed were

assessed on an interval scale. All the dependent variables used in this hypothesis were measured on an interval scale. Before the analysis, the normality of the variables was checked (see Tables 8 and 9 as well as Appendix D). Subsequently, the homogeneity of variance-covariance matrices assumption was checked. The results of Box's M test for variance-covariance was statically significant, Box's $M = 98.823$, $F(42, 774.126) = 1.777$, $p = .002$. This indicates that the assumption was not met hence, the Pillai's Trace test was used. Appendix F presents details on the multivariate analysis.

As shown in Appendix F, the multivariate test for personality differences in terms of religion revealed a significant difference in the combined personality types, $F(12, 652) = 2.15$, $p = .01$; partial eta squared = .04; Pillai's Trace = .08. Based on the result in Table 17, there is the need to examine whether differences exist in each of the dimensions of personality in terms of religion. To achieve this, a separate univariate analysis of variance (ANOVA) was performed using Bonferroni's alpha correction of .008. Table 16 presents the results of the univariate tests.

Table 16-Tests of Between-Subjects Effects (Univariate Test)

Source	Dependent Variable	Df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	Realistic	1	13751.756	709.591	.000	.683
	Investigative	1	13860.339	912.624	.000	.734
	Artistic	1	14719.492	767.797	.000	.699
	Social	1	18470.891	1190.086	.000	.783
	Enterprising	1	14393.649	700.329	.000	.680
	Conventional	1	14113.539	822.234	.000	.714
	Religion	Realistic	2	23.087	1.191	.305
	Investigative	2	.465	.031	.970	.000
	Artistic	2	125.177	6.529	.002	.038
	Social	2	137.711	8.873	.000	.051
	Enterprising	2	64.452	3.136	.045	.019
	Conventional	2	105.013	6.118	.002	.036
Error	Realistic	330	19.380			
	Investigative	330	15.187			
	Artistic	330	19.171			
	Social	330	15.521			
	Enterprising	330	20.553			
	Conventional	330	17.165			
	Total	Realistic	333			
Investigative		333				
Artistic		333				
Social		333				
Enterprising		333				
Conventional		333				

Source: Field Survey (2022); *Significant, $p < .008$.

The results in Table 16 show a statistically significant difference in artistic personality among students who practice different forms of religions (i.e., Christianity, Islam and Traditional religion), $F(2, 330) = 6.529$, $p = .002$; partial eta squared = .038. This implies that religion explains 3.8% of the variance in artistic personality of respondents. The results further revealed a statistically significant differences in two other dimensions of personality types; social personality, $F(2, 330)$

= 8.873, $p = .000$; partial eta squared = .05 and conventional personality, $F(2, 330) = 6.118$, $p = .002$; partial eta squared = .036 among students who practice different forms of religion, ranging from Christianity to Traditional religion. This suggests that the religion of respondents respectively explains 5% and 3.6% of the variances in social personality and conventional personality.

The results in Table 16 however revealed no statistically significant difference in realistic personality, investigative personality and enterprising personality among students who practice different forms of religion, ranging from Christianity to Traditional religion, ($p > .008$). The implication of this result suggests that SHS students who practice different forms of religion in the Jiripa Municipality exhibit similar traits with realistic personality, investigative personality, and enterprising personality. The descriptive statistics are presented in Table 17.

Regarding the descriptive statistics, which indicates univariate test for personality types at various levels of significance, the results in Table 20 indicate that students who practice African tradition as a religion ($M = 18.14$, $SD = 3.39$) exhibited the highest form of artistic personality traits compared to Islamic students ($M = 14.20$, $SD = 4.86$) who exhibited the least form of artistic personality. The results in Table 19 also show that students who practice African tradition as a religion ($M = 19.29$, $SD = 1.70$) exhibited the highest form of social personality traits relative to their counterparts who practice Islamic religion ($M = 16.41$, $SD = 4.75$). Evidence from Table 20 further revealed that students who practice African tradition as a religion ($M = 17.14$, $SD = 2.67$) displayed the highest form conventional personality traits compared with Islamic students ($M = 14.22$, $SD = 4.67$) who displayed the least form of conventional personality traits.

Table 17- *Descriptive Statistics*

Dimensions	Religion	Mean	SD
Realistic Personality	Christianity	15.0830	4.33606
	Islam	15.9294	4.59241
	Traditional Religion	15.7143	4.30946
Investigative Personality	Christianity	15.6100	3.68405
	Islam	15.7294	4.36269
	Traditional Religion	15.5714	5.09435
Artistic Personality	Christianity	16.0000	4.21900
	Islam	14.2000	4.86190
	Traditional Religion	18.1429	3.38765
Social Personality	Christianity	19.2857	1.70434
	Islam	16.4118	4.74666
	Traditional Religion	18.4564	3.65821
Enterprising Personality	Christianity	16.0871	4.68471
	Islam	14.7176	4.01667
	Traditional Religion	17.0000	5.16398
Conventional Personality	Christianity	15.9710	3.97429
	Islam	14.2235	4.66848
	Traditional Religion	17.1429	2.67261

Source: Field Survey (2022); SD: Standard Deviation.

By implication, this suggests that students who practice African tradition as a religion were dominated by artistic and conventional personality traits compared to their counterpart students who practice other forms of religion. Similarly, students who practice the Christian religious faith were dominated by social personality types while students in the Islamic religion were seen to have possessed realistic personality traits. On the grounds of this information, the alternative hypothesis, which noted that "There is no statistically significant difference in the personality types of SHS students based on the basis of religion," was chosen in place of the null hypothesis, which asserted that "There is no statistically significant difference in the personality kinds of SHS students based on religion."

Discussions

The discussion was done in line with the specific objectives.

1. Determinants of Students' Career Choices
2. Personality Types of Students
3. Students' Career Choices
4. Holland's Personality Types and SHS students' Career Choice
5. Demographic Characteristics (gender, programme of study, and religion) and Students' Personality Types

Determinants of Students' Career Choices

The findings of the study revealed that many factors generally informed students' choice of careers. Some of these factors include the influence of family members as well as advice and encouragement from friends. It was however discovered that factors such as "career guidance and counselling programmes" as well as "mass media information" did not inform students' career choices. The findings of the study suggest that SHS students in the Jirapa Municipality often consider the counsel of their immediate family members as well as encouragement from friends when deciding on their careers.

The findings support the work of Namale (2012). According to him, the family in which the individual is raised communicates certain values, demands, and expectations to the child and this can affect the individual's educational skill development and career selection. Similarly, the findings agree with the study of Baloch and Shah (2014) in America who opine that information used by students in making career choices in the future is based on the information students receive from their family members such as their father, mother, guardians, and siblings.

This finding however contradicts Ukwueze and Obiefuna (2017) in Nigeria and Wachira, (2018) in Kenya. They maintained that family factors such as parents' and siblings' wishes, parents' financial capacity, and family's social class are not generally inclusive of deciding on a career and do not influence the career choice of secondary school students. Concerning the influence of friends, the results further support the findings of Mtemeri, (2020), Alika (2010), Kimiti and Mwova (2012) and Hashim, and Embong (2015). Results from the study had it that students are influenced by their peers in making a career choice in several ways. As stated by Williamson as cited in Namale, (2012) they make these uncertain choices for fear of failure and worry about pleasing friends.

Regarding the issue of mass media influence on career choice, the finding is not in support of Njogu, Kibaara and Gichohi (2019) findings in Kenya. The findings revealed that when students have access to television, computers and mobile phones and media personalities and celebrities, they can quickly and easily increase their knowledge about career choices.

Career guidance and counselling programmes did not find favour in the factors which determine the career choice of students in the municipality. This finding is also at par with Lawer, (2015); Frimpong, (2016) and Orewere and Ojochogu, (2020) who concluded that students do not attend any career workshops in selecting their desired careers and so career guidance programmes did not have any prominent influence on students' career decision. Amoah, Kwofie and Kwofie (2015) in their study revealed that career guidance and counselling, career goals identification, organization of career days and conferences, and administration of career interest inventories among students are some of the roles counsellors play that influence the career choice of

students. That notwithstanding, students' low patronage of the services is due to issues of confidentiality and counsellors being assigned to teach (Upoalkpajor, Eggley, & Namale, 2018). The study further agrees with Ahiagble, Atuahene, and Asiamah, (2018) study. They stated that lack of adequate guidance and resources for making informed career decisions result in students struggling to choose the right path, leading to a high rate of unguided career choices.

Regarding the influence of mass media on students' career choices, the finding is in line with Cooper (2013) in New York and Njogu, Kibaara and Gichohi, (2019) finding in Kenya. The study results showed that social media use among students is not directly related to students' career aspirations.

Personality Types of Students

It was depicted that students within the Jirapa Municipality exhibited some personality types. Topmost among these personality types include social personality traits, enterprising personality traits, investigative personality traits, artistic personality traits, conventional personality traits, as well as realistic personality traits. By implication, the outcome of the research suggested that SHS students in the Jirapa Municipality were predominantly dominated by social personality traits. On the contrary, SHS students within the Municipality did not predominantly exhibit realistic personality traits.

The outcome of the research agrees with Bedu-Addo (2009) on the basis that personality is an individual's collective traits that are fairly consistent in a person to make the person behave in a fairly predictable manner. The author explained that personality is a very important element in choosing an occupation because a personality that does not match a particular job is likely to present the job holder with

difficulties. This argument is also in line with Perger and Takacs (2016) who indicated that no definite direction in making a career choice exist and so students are encouraged to accept their personalities and pair them with their most compatible careers. That is to say, individuals have to arrive at a Career choice based on their personality orientation.

Students' Career Choices

It was depicted that SHS students at Jirapa Municipality displayed interest in many career choices. Some of these career choices include social-related occupations, investigative occupations and enterprise-related occupations. Individuals who engage in social-related occupations often offer social and humanitarian services to the general public. Such individuals take on person-oriented occupations such as counselling, offering health assistance to patients, engaging in social work, teaching as well as serving as human resource managers. Similarly, individuals who engage in investigative occupations take on professions such as journalism, whereas those who engage in enterprise-related occupations take on professions such as marketing managers or engaging in business activities.

The outcome of the research shares conclusions with the assertions of Taylor and Buku (2006) who indicated that career choice as a process involves the act of deciding on the kind of work one wants to pursue in one's lifetime. In their view, the authors explained that many variables from the perspective of the home, the personality of the career seeker, and the society or the environment come into play when making such decisions. This argument also supports the assertion of Maina (2013) who indicated that career choice is the selection of a course of study which

leads to a specific profession according to one's interest, passion, and ability as influenced by factors such as parental factors, peers, and role models

Holland's Personality Types and Students' Career Choice

The findings of the study revealed that Holland's personality type was a significant predictor of students' career choices. Thus, realistic personality, investigative personality and artistic personality were significant positive predictors of realistic occupation. Similarly, the findings of the study revealed that realistic personality traits and investigative personality traits were respective significant positive predictors of investigative occupation.

Regarding the issue of artistic occupation, the findings of this study revealed that realistic personality traits, artistic personality and enterprising personality traits were respective significant positive predictors of artistic occupation. The findings of the study further revealed that social personality trait as well as conventional personality was significant positive predictors of social occupation. The study also indicated that investigative personality, artistic personality, and social personality were respective significant positive predictors of enterprising occupation.

Concerning the issue of conventional occupation, the findings of the study revealed that investigative personality, artistic personality, as well as conventional personality was respective significant positive predictors of conventional occupation. Put together, the findings of this current study revealed a positive relationship between Holland's personality types and students' career choices.

The findings of the current study are in line with Onoyase and Onoyase (2009) who discovered a significant impact of RIASEC personality traits on occupational preferences. Based on the findings the authors recommended that counsellors should

give importance to career guidance in schools to enable students to align their personality types with intended careers. Though the findings generally depict a positive prediction between personality types and career choice, students still complain about being unhappy about their career choices. For instance, a study by Durosaro and Nuhu (2012) revealed that students did not know the type of subject they were to offer if they wanted to pursue a certain career at higher levels. Another study by Yamin-Ali (2014) shows that students show dissatisfaction with their subject selection. This poor knowledge or dissatisfaction about subject selection may be attributed to parents and friends who students often contact for their advice on subject selection. It could also be a mismatch between the students' programmes of study and their personality traits resulting from the low impact of Guidance Counsellors in the municipality.

Personality Types, Career Choices and Gender, Programme of study and Religion

This study explored students' personality types, career choices and gender, programme of study and religion.

Students' Personality Types, Career Choice and Gender

Regarding the issue of gender, the findings of this study discovered that male students in the municipality exhibited more realistic personality traits than female students. On the contrary, females displayed more social personality traits compared to their male counterparts. Similarly, it was discovered that female students exhibited more conventional personality traits relative to their male counterparts. The results imply that while males were dominated by realistic personality traits, females were dominated by both social and conventional personality traits respectively.

This finding agrees with the findings of Ahmed, Ahmed, and Salahuddin, (2019) who conducted a study in Pakistan. The findings of the aforementioned authors revealed that male adolescents have realistic personality types (37%) and enterprising (30%) compared to their female participants. On the other hand, female participants were dominated by social personality traits (50%) compared to male respondents. Similarly, the findings support the study of Migunde, Agak and Odiwuor, (2012) in Nigeria. Migunde and colleagues explored gender differences in adolescents 'career aspirations and revealed that the realistic career type is mostly preferred by males while the social career type is mostly chosen by females.

Students' Personality Types Career Choice and Programme of Study

Regarding students' programme of study, the findings of the study revealed that students who pursued General Arts as a programme of study exhibited the highest form of investigative personality trait compared with General Science students who exhibited the least form of investigative personality trait. The study also discovered that students who offered Visual Arts exhibited more artistic personality traits relative to Agricultural Science students who exhibited the least form of artistic personality traits.

It was also evident in the findings of this study that Home Economics students exhibited the highest form of social personality traits compared to Agricultural Science students who exhibited the least form of social personality traits. Again, the study discovered that most of the students who took Visual Art as a programme of study displayed more enterprising personality traits relative to Agricultural students who displayed the least form of enterprising personality traits. It was further discovered in the findings of the current study that students who pursued Business as

a programme of study exhibited the highest form of conventional personality traits whereas Agricultural Science students exhibited the least form of conventional personality traits. This result implies that, while Visual Arts students were dominated by artistic and enterprising personality traits, General Art's students, Home Economics students, and Business students were dominated by investigative, social and conventional personality traits respectively.

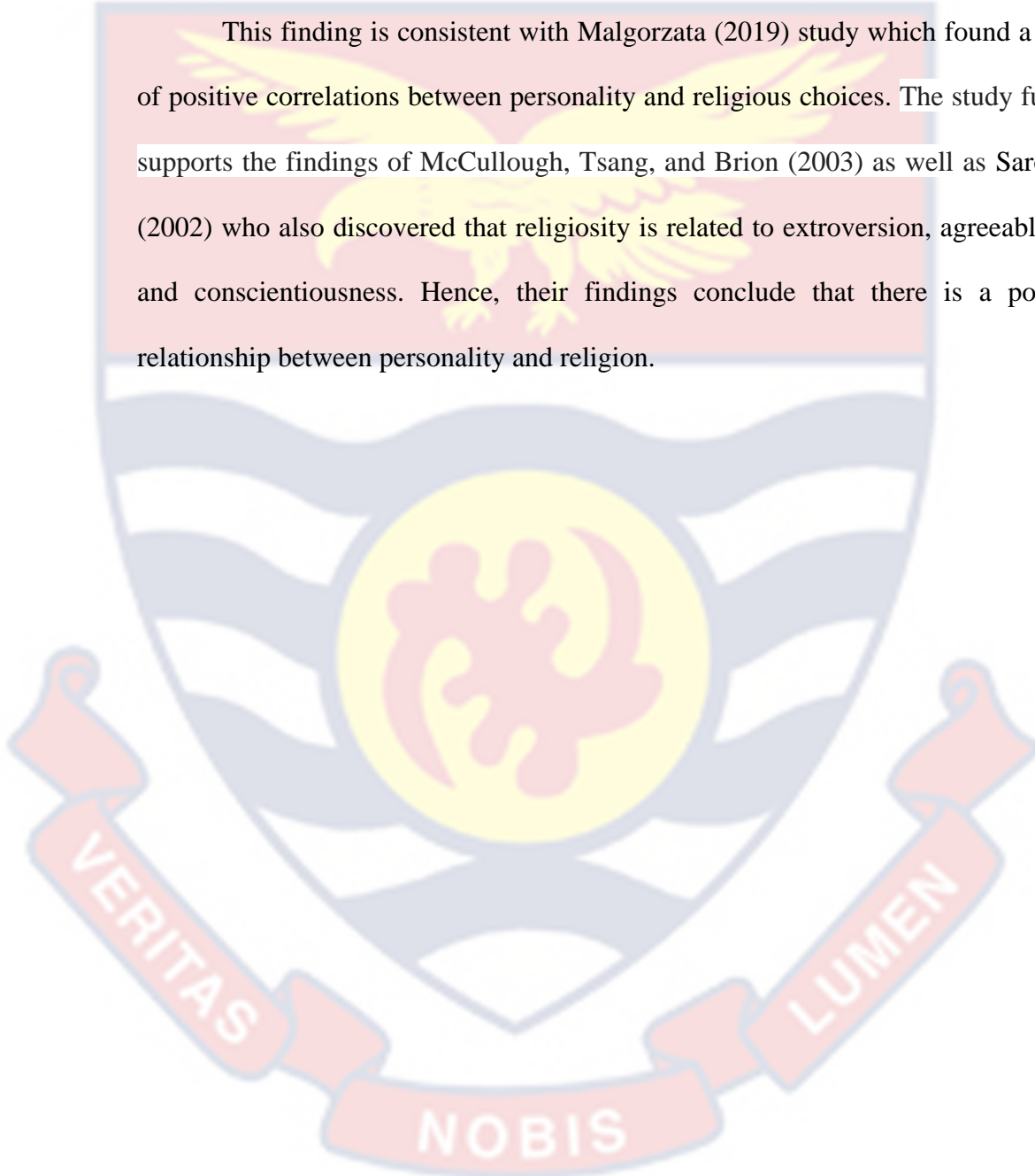
The finding of this study is at par with Esseh, Ry-Kottoh and Owusu (2021). Esseh, Ry-Kottoh and Owusu used Study Choice Task Inventory (SCTI) to gather data on how senior high school students choose programmes of study at higher institutions. Their findings revealed that high school students in Ghana were well-oriented about the "study choice task" and it helps them to choose programmes to pursue in higher education. However, the low impact recorded by career guidance and counselling programmes revealed by this study indicates that students in the Jirapa Municipality do not have access to such inventories to use in their career decision process.

Students' Personality Types, Career Choice and Religion

It was discovered in the findings of the current study that students who practice African tradition as a religion exhibited the highest form of artistic personality traits compared to Islamic students who exhibited the least form of artistic personality. The results again revealed that students who practice Christianity as a form of worship exhibited the highest form of social personality traits relative to their counterparts who practice the Islamic religion. The findings of this study further discovered that students who practice Islam as a religion displayed the highest form of realistic personality traits compared with Christian students who displayed the least form of

realistic personality traits. By implication, the findings of this study suggest that students who practice African tradition, Christianity and Islam as a religion were dominated by artistic, social and realistic personality traits respectively.

This finding is consistent with Malgorzata (2019) study which found a trend of positive correlations between personality and religious choices. The study further supports the findings of McCullough, Tsang, and Brion (2003) as well as Saroglou (2002) who also discovered that religiosity is related to extroversion, agreeableness and conscientiousness. Hence, their findings conclude that there is a positive relationship between personality and religion.



CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The study examined the relationship between Holland's Personality Types and Senior High School (SHS) students' career choices in the Jirapa Municipality. This chapter presents the summary of the study, conclusions from the study, recommendations, implications for counselling and suggestions for further studies.

Summary

The study investigated the relationship between Holland's personality types and Senior High School (SHS) students' career choices in the Jirapa Municipality. The study was guided by seven (7) objectives which were transformed into three (3) research questions and four (4) hypotheses. Literature was reviewed based on the theories that guided the study, the conceptual framework of the study and the empirical review of the study. The descriptive survey design, specifically with a quantitative approach was employed in the conduct of the study. The study's population consisted of students in Senior High school in the Municipality, totaling 3137. Multistage sampling techniques were used to engage 350 respondents in the study. A standardized questionnaire on career choice determinants and career decision-making difficulties questionnaire was used to gather data from respondents. The instrument was pilot-tested using thirty-five (35) respondents from Queen of Peace Senior High School situated in the Nadowli- Kaleo District. The questionnaire was refined based on the responses provided by respondents. Copies of the restructured questionnaire were administered personally with the assistance of two colleague teachers in each of the two senior high schools. The data was collected

within two months. The completed questionnaires were retrieved, edited, coded and analyzed with the Statistical Product for Service Solution (SPSS) Version 25 software. Means and standard deviations were used to analyse data on research questions 1, 2 and 3. Similarly, data on hypothesis 1 was tested using multivariate regression. Data on hypotheses 2, 3 and 4 were however tested using one-way multivariate analysis of variance (MANOVA).

Key Findings

The research produced the following findings:

1. The findings of the study revealed that factors such as the influence of family members as well as advice and encouragement from friends informed students' career choices within the Jirapa Municipality. It was however discovered that factors such as "career guidance and counselling programmes" as well as "mass media information" did not inform students' career choices.
2. The findings of this study discovered that students within the Jirapa Municipality exhibited several personality types. Key among these personality types include social personality traits, enterprising personality traits, investigative personality traits, artistic personality traits, conventional personality traits, as well as realistic personality traits.
3. The findings of the study revealed that SHS students within the Jirapa Municipality displayed interest in many career choices. Some of these career choices include social-related occupations, investigative occupations and enterprise-related occupations. The findings of the study however discovered that students within the Municipality did not express interest in conventional and artistic-related occupations.

4. The findings of the study revealed that Holland's personality type was a significant predictor of students' career choices. Thus, the findings of this current study revealed a positive relationship between Holland's personality types and students' career choices.
5. The findings of the study revealed that while males were dominated by realistic personality traits, females were dominated by both social and conventional personality traits in their career choices respectively.
6. The findings of the study revealed that Visual Arts students were dominated by artistic and enterprising personality traits. Similarly, it was discovered that General Arts students, Home Economics students, and Business students were dominated by investigative, social and conventional personality traits respectively.
7. The findings of this study further revealed that students who practice African tradition, Christianity and Islam as a form of religion were dominated by artistic, social and realistic personality traits respectively.

Conclusions

Based on the findings, it can be concluded that family and friends have a significant influence on students' career choices, while career guidance and counselling programmes and mass media information have a limited impact. Also, the findings of this study provide evidence to conclude that though career guidance and programmes play a key role in guiding students to make reputable career choices, the impact of career guidance and counselling programmes on the career choice of students was very low. The low impact of guidance and counselling programmes on students' career choices could also be that the counsellors are; not adequate career for

the SHS level, not including guidance topics for first year students', not organizing career days/conferences for students and not using appropriate psychometric tools, or not engaging in a counsellor-parent consultation concerning the career choices of students. These findings suggest that there is a need to improve career guidance and counselling programmes for students and to consider the impact of family and peer influence on career choices.

Again, it can be concluded that senior high school students in the Jirapa Municipality exhibit a variety of personality types, with social personality traits being the most common. Similarly, it can be concluded that students in the Municipality display a diverse range of career interests, but tend to overlook conventional and artistic-related occupations.

It is also concluded that personality types based on Holland's theory appear to play a significant role in predicting students' career choices, with realistic, investigative, and artistic personality traits correlating positively with respective career choices. These conclusions suggest that career guidance programmes should take into account students' personality types in the career decision process.

Based on the findings of this study, it can be concluded that there are differences in personality traits exhibited by male and female students in their career choices. Male students tend to prioritize realistic personality traits while female students prioritize both social and conventional personality traits. Counsellors and educators should therefore be mindful of gender related factors that can influence the personality types and career choices of students in the municipality.

Additionally, the choice of programme of study also has an impact on personality traits and career choice. Students pursuing General Arts tend to exhibit

investigative traits, while Visual Arts students display more artistic traits, and Home Economics students exhibit higher levels of social traits. These findings suggest that certain personality traits play a role in career choices, and that individuals with certain personality traits may be more suited for certain academic programmes or occupations. It is important for individuals to recognize and understand their own personality traits when making career decisions.

It can still be concluded that religion plays a significant role in shaping the personality traits of SHS students in the municipality and their career choices. African traditional religion seems to be associated with artistic and conventional traits, while Christianity is associated with social traits. On the other hand, Islam appears to be linked with realistic traits. Therefore, it is important for counsellors and educators to be aware of these differences when providing career guidance for students from different religious backgrounds.

Recommendations

The following recommendations were developed on the basis of the results and overall conclusion of the research as follows:

1. Teachers, career guidance and counselling coordinators and all significant others should educate parents/guardians to be aware of the potential impact their decisions can have on their children's future career choices. Parents should further be encouraged to participate in the career decision-making process of their children to help them make informed career decisions.
2. Ghana Education Service through senior high school guidance and counselling coordinators, educational NGOs (CAMFED GH. and World Vision) should

implement comprehensive career guidance programmes that highlight the importance of personality types in career decision making process of students.

3. Policy makers particularly Ministry of Education and Ghana Education Service should consider personality types a part of the SHS curriculum to improve career decision making among senior high school students.
4. Guidance and Counselling professionals in senior high schools in the Jirapa Municipality should form a guidance committee. This committee should have a semester-based scheme of activities that are ran simultaneously in the senior high schools. These activities should include: career days, seminars and conferences. These activities would widen the scope of career information given to students and also reduce the rate at which family and friends can influence their career decisions.
5. The Jirapa Municipal Education Directorate Guidance and Counselling unit should periodically visit junior high schools in the municipality to give career guidance to the junior high school pupils on how to select senior high school programmes/courses that are congruent with their personality types. They should employ the support of appropriate psychometric instruments in this exercise.
6. Ghana Education Service should train school counsellors to recognize and support students whose career choices may be influenced by their gender stereotypes, programme of study and religious beliefs. Such training should include strategies to effectively and efficiently demystify misconceptions about career decisions students make based on these factors.

Implications for Counselling

1. School counsellors should recognize the significant role parents and guardians play in students' career decision making and involve them in the career guidance and counselling process.
2. Counselors should use Holland's personality types to guide students in making informed career decisions that align with their interests, abilities, and personality traits. Guidance and counselling professionals in the municipality should be prepared to address issues of religious influence on students' career choices and provide resources that cater to diverse religious backgrounds.
3. Counselling practitioners in the municipality should collaborate with policymakers and stakeholders to implement career guidance programs that prioritize personality types.

Suggestions for Future Research

1. Future research focuses on exploring the reasons behind the family influence on the career choices of senior high school students in the Jirapa Municipality.
2. Future research could be conducted to investigate the significance of tailoring career guidance programmes on personality types in career choices of senior high school students in the Jirapa Municipality.
3. Finally, research could be carried out in other districts/municipalities in the country to widen the scope of its generalization

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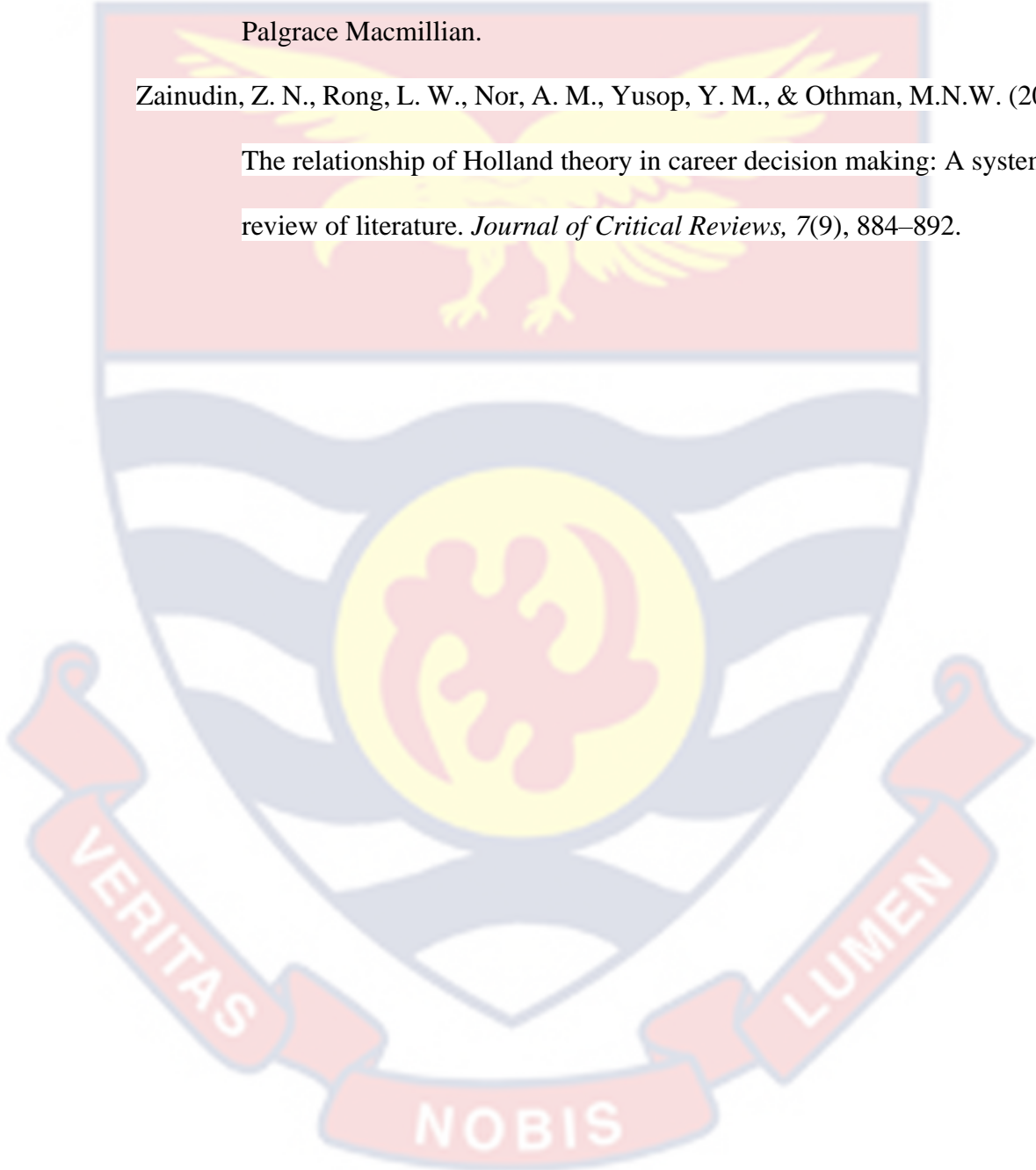
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APPENDIX A

INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS**DEPARTMENT OF GUIDANCE AND COUNSELLING**

Telephone: 0332091854

E-mail: dgc@ucc.edu.ghUNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: DGC/L.2/VOL.1/185

14th April, 2022

Your Ref:

TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION

We introduce to you, Emmanuel Kampigee a student pursuing an M.Phil. Programme in Guidance and Counselling at the Department of Guidance and Counselling of the University of Cape Coast. As a requirement, he is to submit a Thesis on the topic: *"relationships of Holland's Personality Types on Career Choice Among Senior High School Students in the Jirapa Municipality, Ghana"*. We are by this letter affirming that, the information he will obtain from your Institution will be solely used for academic purposes.

We would be most grateful if you could provide him the necessary assistance.

Thank you.

Dr. Stephen Doh Fia
HEAD OF DEPARTMENT

APPENDIX B

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA



Our Ref: CES-ERB/ucc.edu/16/22-36
Your Ref:

Date: 25th April, 2022

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680

The bearer, Immanuel Kampigee, Reg. No. 4462/2008 is
M.Phil. / ~~Ph.D.~~ student in the Department of Guidance and
Counselling in the College of Education Studie
University of Cape Coast, Cape Coast, Ghana. He / ~~She~~ wishes to
undertake a research study on the topic:

Relationships of Holland's personality types
on career choice among senior high school
students in the Tirapa Municipality, Ghana.

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/~~her~~ proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/~~her~~ study. The ERB would be grateful if you would give him/~~her~~ the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

APPENDIX C

QUESTIONNAIRE FOR STUDENTS

The purpose of this study is to obtain information on factors that influence the career choice of students in senior high schools in the Jirapa Municipality. I, therefore, solicit your cooperation and consent to participate in this study. The confidentiality of your responses is guaranteed. There is no right or wrong answer. Please indicate your choice by **ticking** (✓) or **circling** response where necessary.

SECTION A**Demographic Information**

1. Gender: Male [] Female []
2. Programme/Course of study: Business [] General Art [] General Science [] Home Economics [] Visual Art [] Agricultural Science []
3. Religion : Christianity [] Islam [] African Traditional Religion [] Other []

SECTION B**Factors that determine the career choice of senior high school students in the Jirapa Municipality**

To help the researcher better understand your perspective, could you please indicate the degree to which you Strongly Agree-SA, Agree-A, Disagree-D, and Strongly Disagree-SD with the following statements?

Directions: Mark with a check mark (O) the ones that apply to how these aspects affect the decision you make on your professional path.

Where: *SA = Strongly Agree, (4), A = Agree, (3) D = Disagree, (2) and SD = Strongly Disagree (1)*

S/N	STATEMENT	SA	A	D	SD
4.	My family members (father, mother and siblings) influenced my career choice	4	3	2	1
5.	Career guidance and counselling programmes helped me to choose my career	4	3	2	1
6.	I made my career choice based on the advice, encouragement and choices of my friends	4	3	2	1
7.	Information from mass media tools such as television, the internet and newspapers influenced my career choice	4	3	2	1

SECTION C

In this section, there are statements showing various “**HOLLAND’S PERSONALITY TRAITS**” Please indicate by circling the number which signifies the level to which you Strongly Agree-SA (4), Agree-A (3), Disagree-D (2), and Strongly Disagree-SD (1) to the statements below as applying to you.

REALISTIC PERSONALITY TRAITS		SA	A	D	SD
8.	I like planning, designing and construction works like building, welding, electrical wiring and plumbing	4	3	2	1
9.	I like to use tools like screwdrivers, pliers and spanners to repair things	4	3	2	1
10.	I like to repair faulty electrical appliances in the house such as fans, torchlights, wireless and sockets	4	3	2	1
11.	I like to learn how to apply fertilizers in different ways to get a good yield	4	3	2	1
12.	I like to set up and operate electronic equipment	4	3	2	1
13.	I like working on activities that involve the use of my hands	4	3	2	1

INVESTIGATIVE PERSONALITY TRAITS		SA	A	D	SD
14.	I enjoy working alone on activities	4	3	2	1
15.	I like to solve mathematics and scientific problems	4	3	2	1
16.	I like to study or learn about the work of judges and how to argue in court	4	3	2	1
17.	I like to research diseases in plants and animals to find treatments for them	4	3	2	1
18.	I like to interview people and publish stories in newspapers and social media	4	3	2	1
19.	I like to study how animals and plants live together	4	3	2	1

ARTISTIC PERSONALITY TRAITS		SA	A	D	SD
20.	I like to draw and paint pictures	4	3	2	1
21.	I like to study how to play a musical instrument or sing	4	3	2	1
22.	I like to do clay molding or wood carving or dressmaking	4	3	2	1
23.	I like to study music, drama or Theater Art or Visual Art	4	3	2	1

24.	I like to entertain people through singing, reciting poems, dancing and acting in plays	4	3	2	1
25.	I like to advise people on cosmetics and other beauty treatments	4	3	2	1

SOCIAL PERSONALITY TRAITS		SA	A	D	SD
26.	I like trying to help people find better ways to solve their problems	4	3	2	1
27.	I like assisting the disabled and caring for the sick to help them get well	4	3	2	1
28.	I like to speak to people who feel lonely and worried to feel happy in society	4	3	2	1
29.	I like to give religious education, spiritual guidance and moral counseling to members of a religious group	4	3	2	1
30.	I like to identify, talk to and bring new people to join a club or society	4	3	2	1
31.	I like to teach or train people	4	3	2	1

ENTERPRISING PERSONALITY TRAITS		SA	A	D	SD
32.	I like to convince people to buy things/goods	4	3	2	1
33.	I like to persuade people to vote for a particular party	4	3	2	1
34.	I would like to start or go into my own business	4	3	2	1
35.	I would like to start my own business	4	3	2	1
36.	I like supervising and monitoring others.	4	3	2	1
37.	I like to lead or influence my colleagues during group activities	4	3	2	1

CONVENTIONAL PERSONALITY TRAITS		SA	A	D	SD
38	I like to organize and store information and prepare reports for clubs and societies	4	3	2	1
39	I like to see beds, tables and chairs in the class or dormitory organized in an orderly manner	4	3	2	1
40	I like to collect monies and enter all financial transactions for groups and societies	4	3	2	1
41	I like to advise people on financial issues and keep their monies without spending it	4	3	2	1

42	I like to work in a place where I will be answering calls, typing information, filling forms and serving meetings and keeping all information and documents	4	3	2	1
43	pay attention to details and follow them with all my mind	4	3	2	1

SECTION D

In this section, there are statements showing various “**HOLLAND’S OCCUPATIONAL ENVIRONMENTS**” Please indicate by circling the number which signifies the level to which you Strongly Agree-SA (4), Agree-A (3), Disagree-D(2), and Strongly Disagree-SD(1) to the statements below as applies to you

REALISTIC OCCUPATIONAL ENVIRONMENT		SA	A	D	SD
44.	I like to be an Agricultural Technician, Carpenter, Plumber, Electricians	4	3	2	1
45.	I like to be an Audio and Video Equipment Technician	4	3	2	1
46.	I like to be a Civil Engineer	4	3	2	1
47.	I like to be a Computer Programmer	4	3	2	1
48.	I like to be an Agric Extension Officer	4	3	2	1
49.	I like to be a Farmer	4	3	2	1

INVESTIGATIVE OCCUPATIONAL ENVIRONMENT		SA	A	D	SD
50.	I like to be a Surveyor	4	3	2	1
51.	I like to be an Investigative journalist	4	3	2	1
52.	I like to be a Mathematician or Statistician	4	3	2	1
53.	I like to be a Lawyer or a Judge	4	3	2	1
54.	I like to be a Medical Researcher	4	3	2	1
55.	I like to be a Criminal Investigator	4	3	2	1

ARTISTIC OCCUPATIONAL ENVIRONMENT		SA	A	D	SD
56.	I like to be an Actor, a Musician, or a Dancer	4	3	2	1
57.	I like to be a Comedian	4	3	2	1
58.	I like to be a Graphic Designer	4	3	2	1

59.	I like to be a Clothes Designer	4	3	2	1
60.	I like to be a Painter or Artist	4	3	2	1
61.	I like to be a Poet	4	3	2	1

SOCIAL OCCUPATIONAL ENVIRONMENT		SA	A	D	SD
62.	I like to be a Counsellor, a Teacher, or Social Worker	4	3	2	1
63.	I like to be a Health Assistant or a Nurse	4	3	2	1
64.	I like to be a Human Resource Manager	4	3	2	1
65.	I like to be a Coordinator	4	3	2	1
66.	I like to be a Priest/Imam	4	3	2	1

ENTERPRISING OCCUPATIONAL ENVIRONMENT		SA	A	D	SD
67	I like to be a Businessmen	4	3	2	1
68	I like to be a Sales/Purchasing Agent	4	3	2	1
69	I like to be a Life Insurance Agent	4	3	2	1
70	I like to be a Politician	4	3	2	1
71	I like to be a Marketing Manager	4	3	2	1
72	I like to be a Group Leader	4	3	2	1

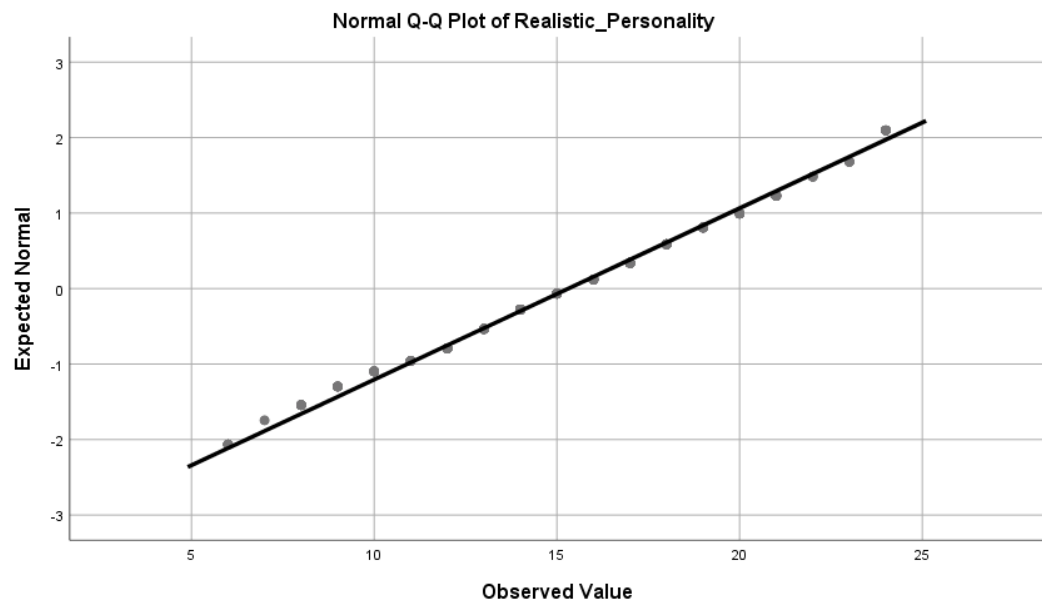
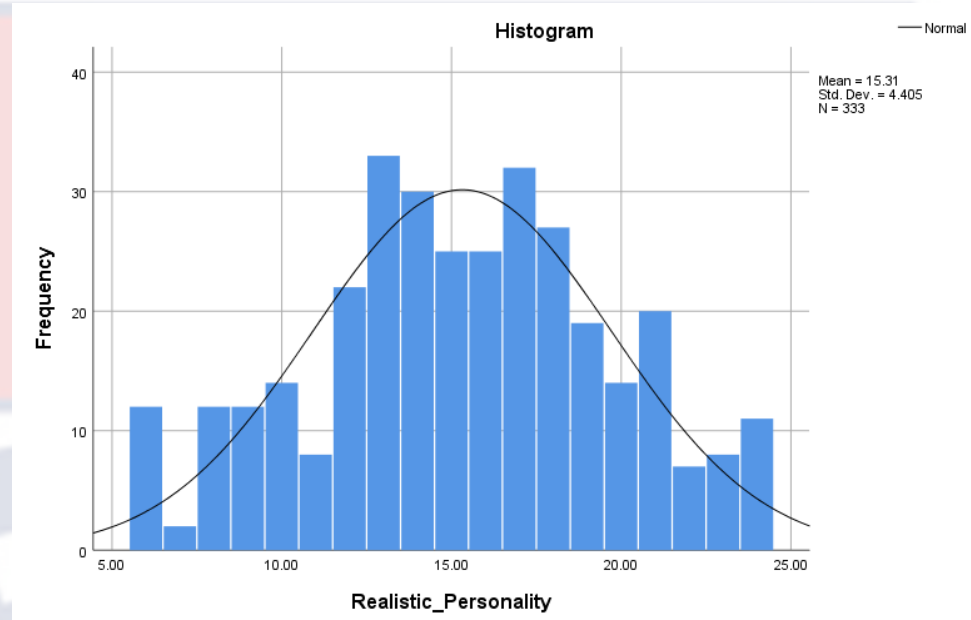
CONVENTIONAL OCCUPATIONAL ENVIRONMENT		SA	A	D	SD
73	I like to be an Administrative Assistant	4	3	2	1
74	I like to be an Auditor	4	3	2	1
75	I like to be a Banker	4	3	2	1
76	I like to be an Office Manager (Secretaries, Stenographer)	4	3	2	1
77	I like to be a Ticket Agent	4	3	2	1
78	I like to be a book Bookkeeper	4	3	2	1

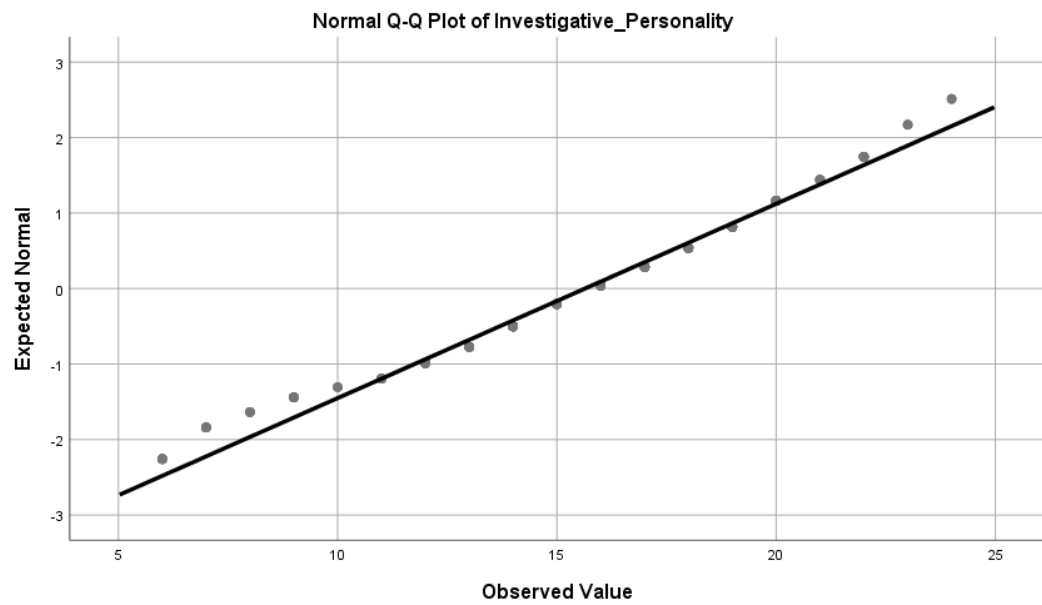
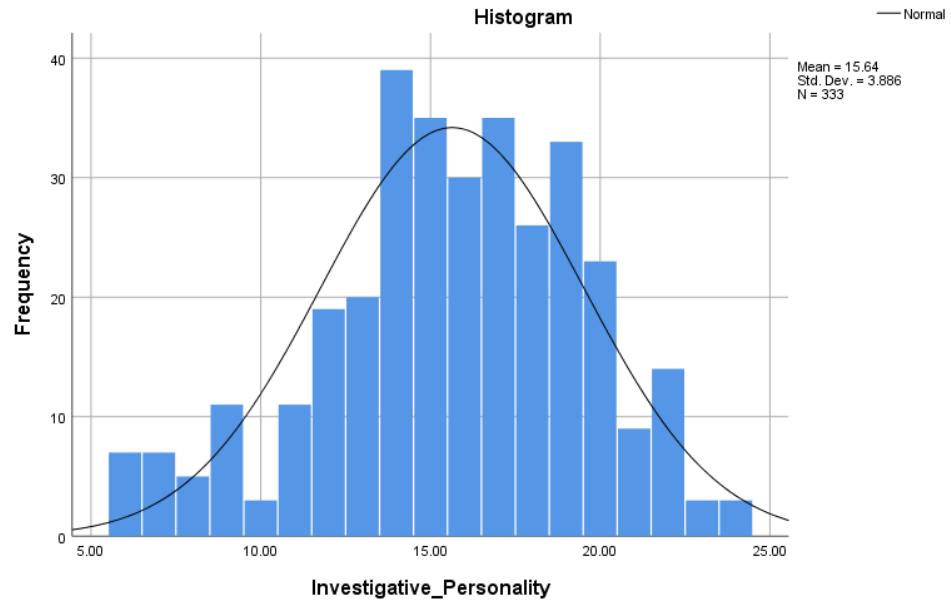
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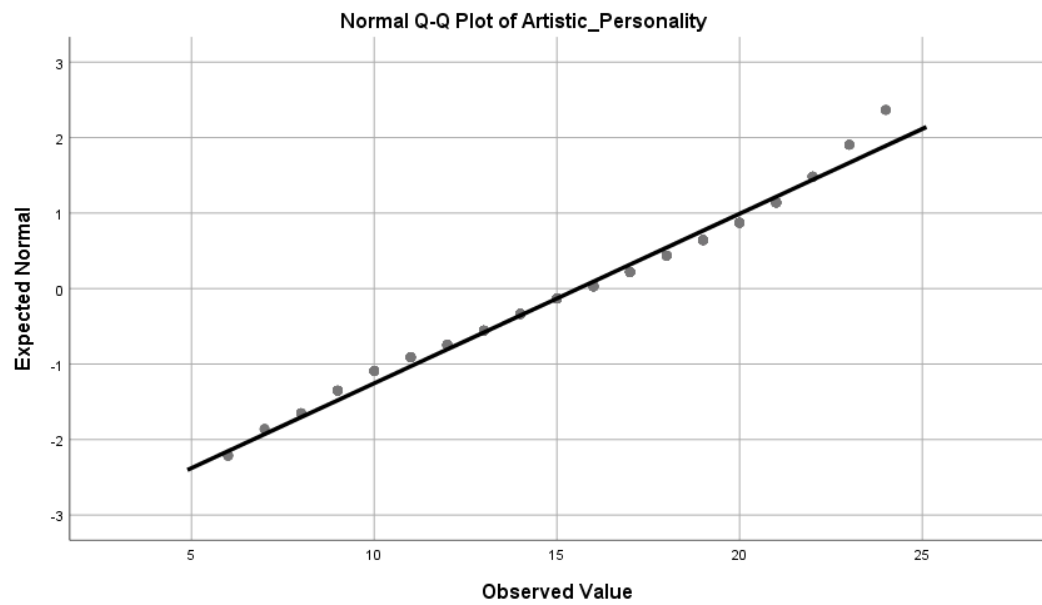
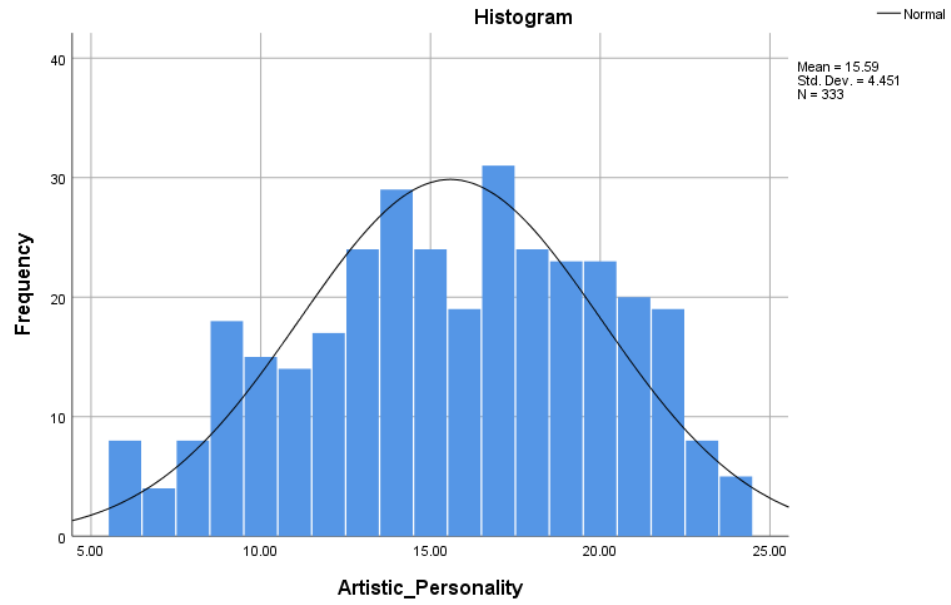
APPENDIX D

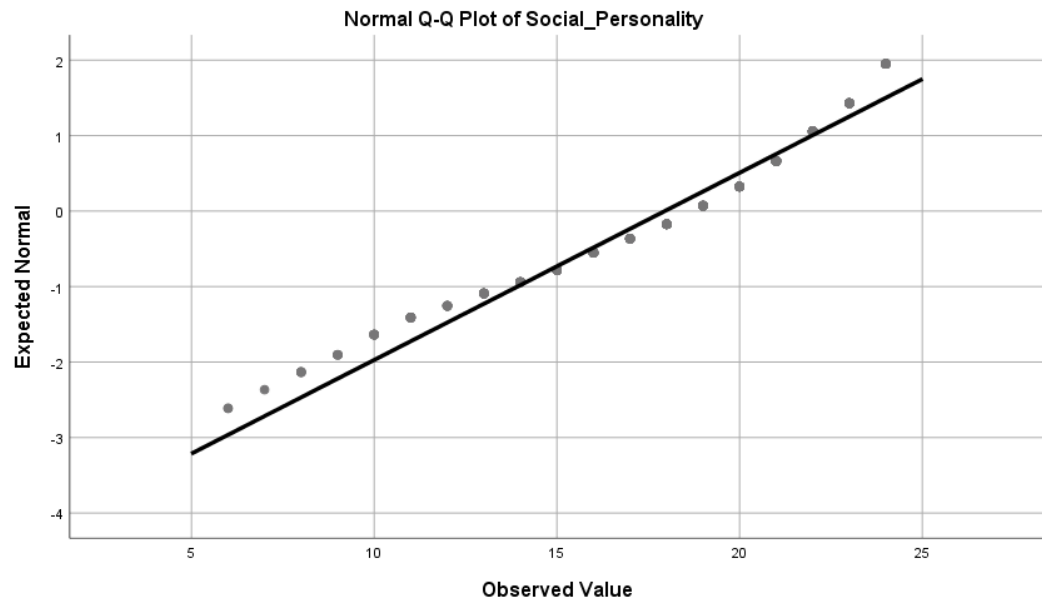
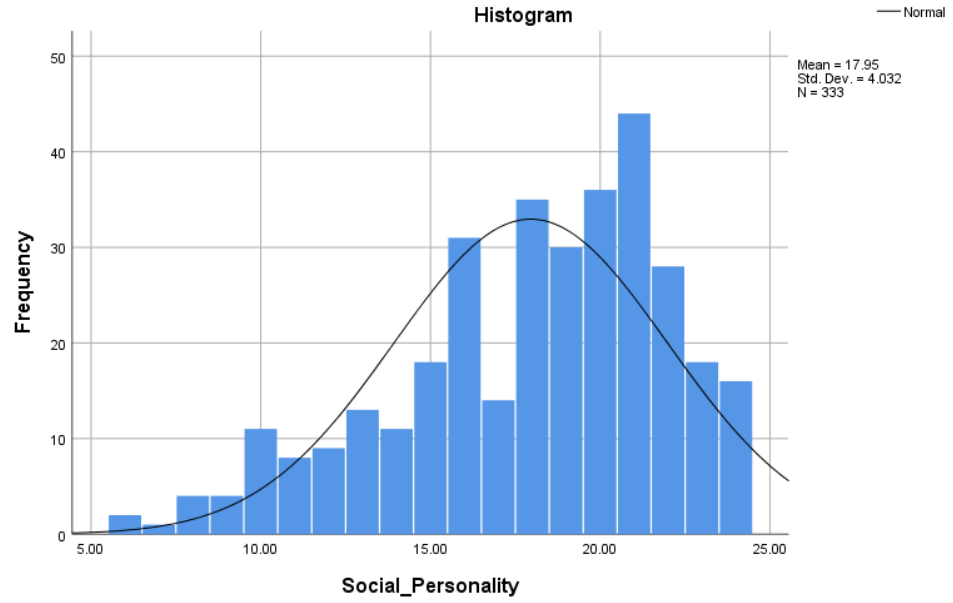
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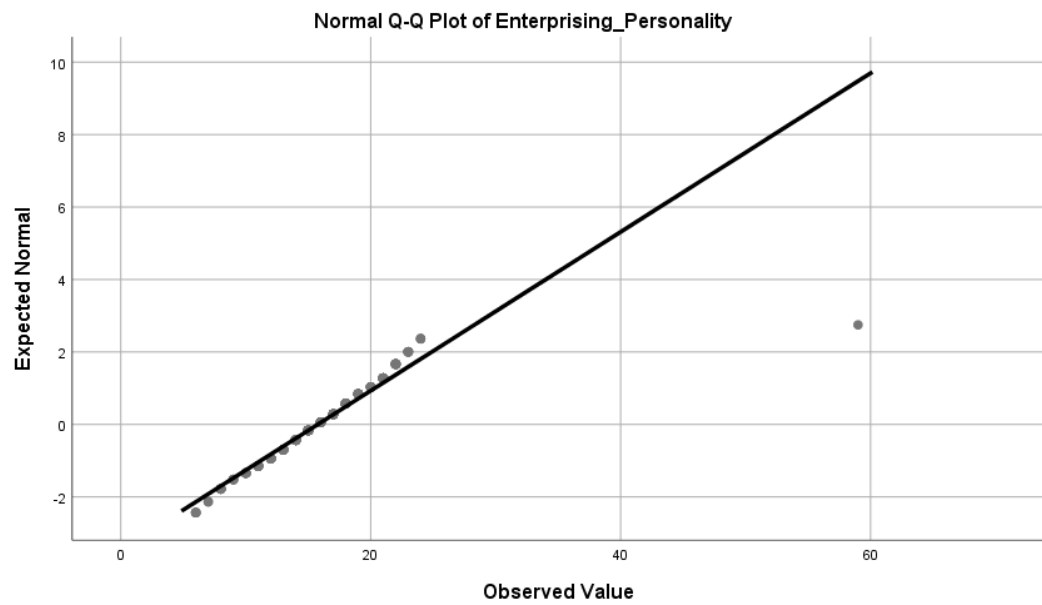
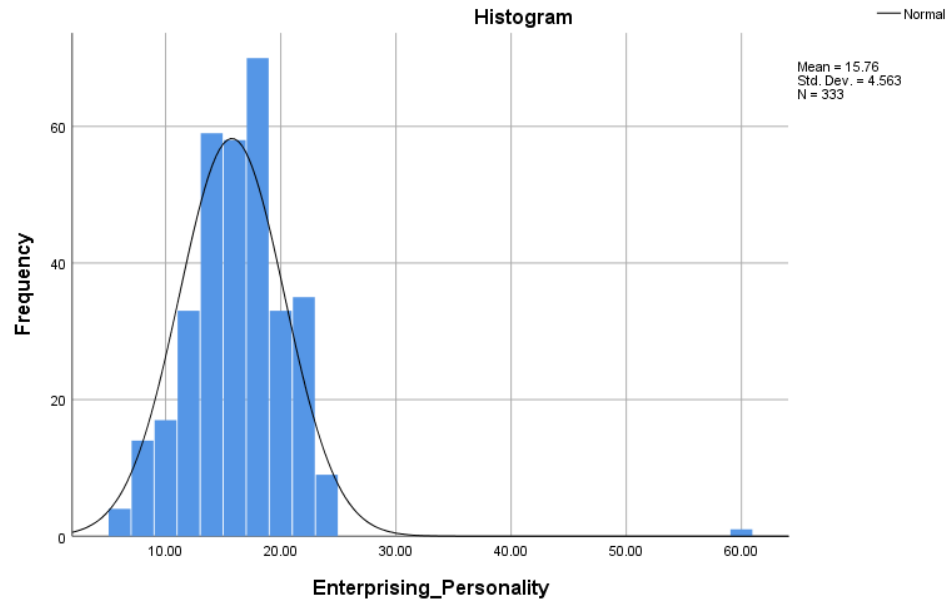
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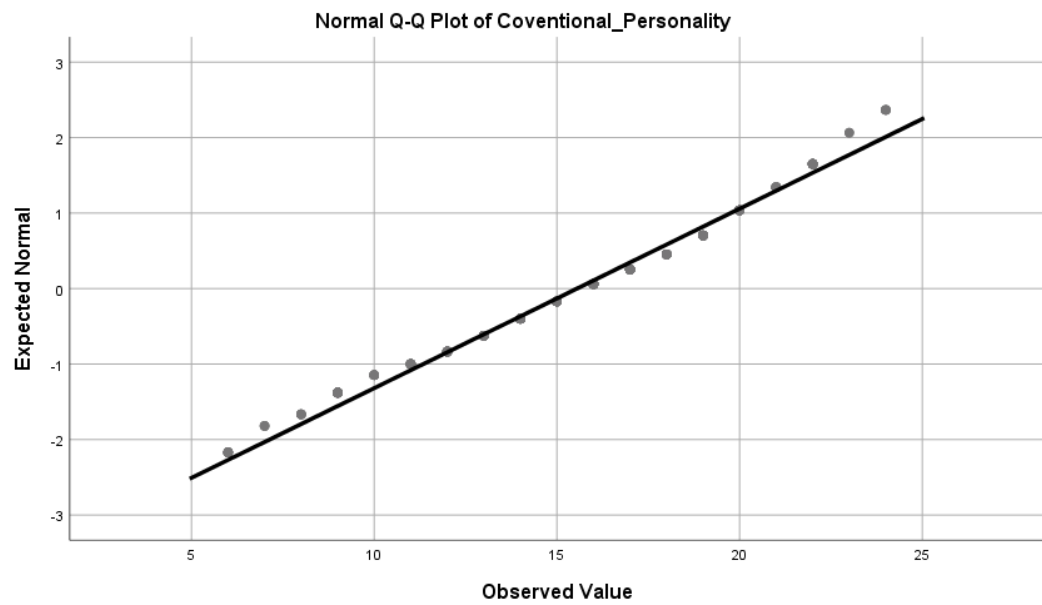
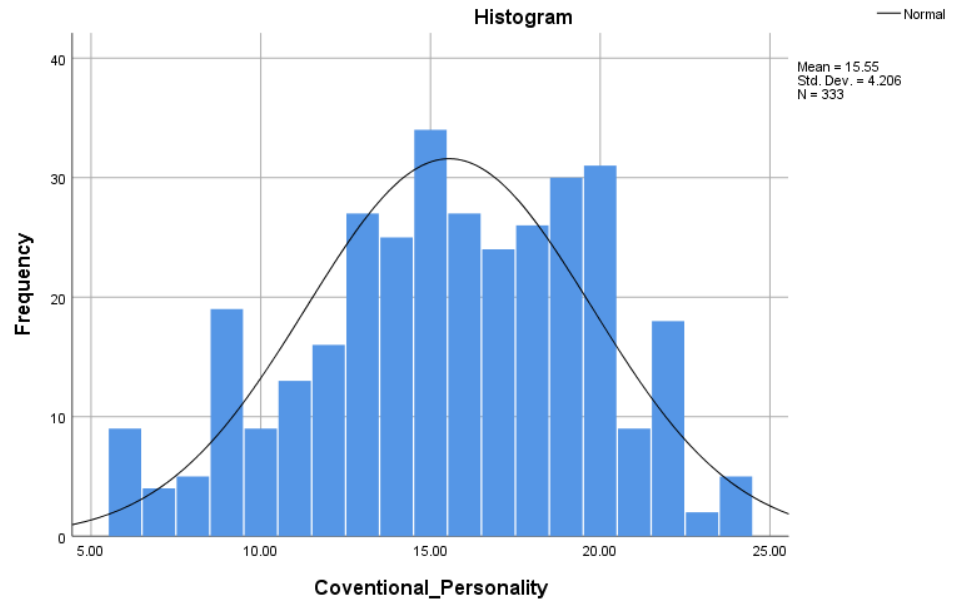




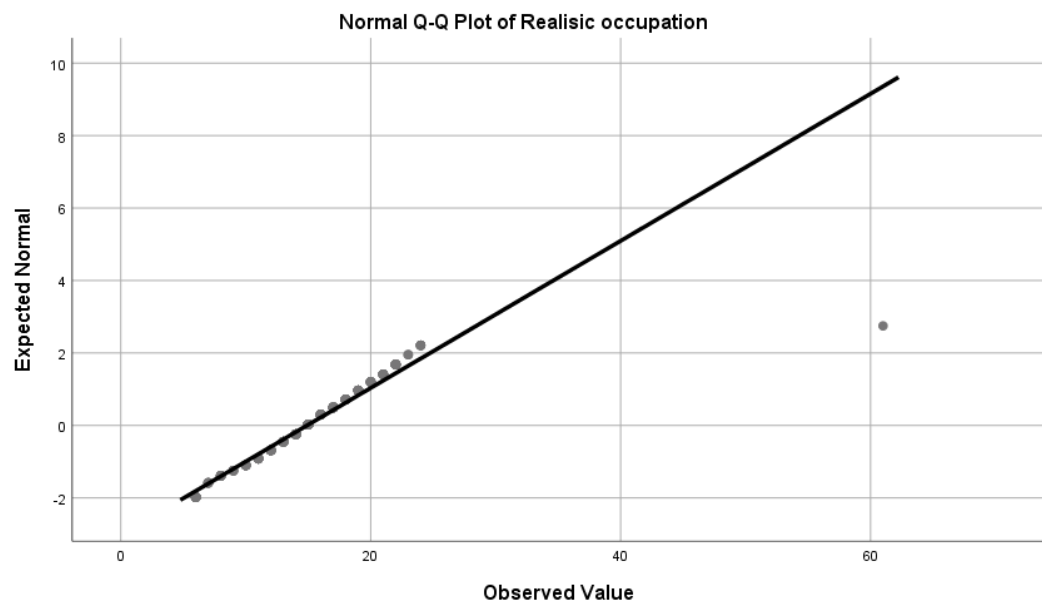
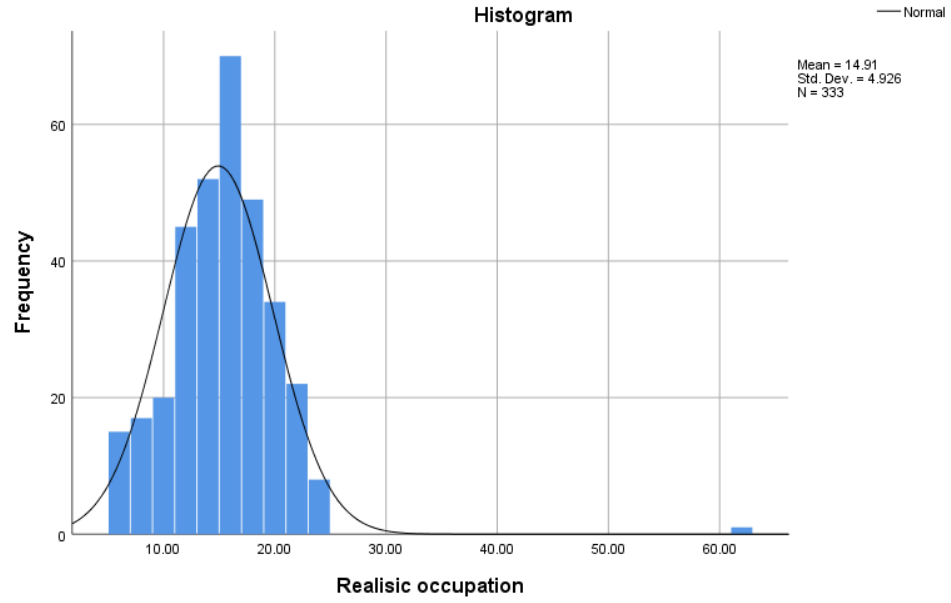


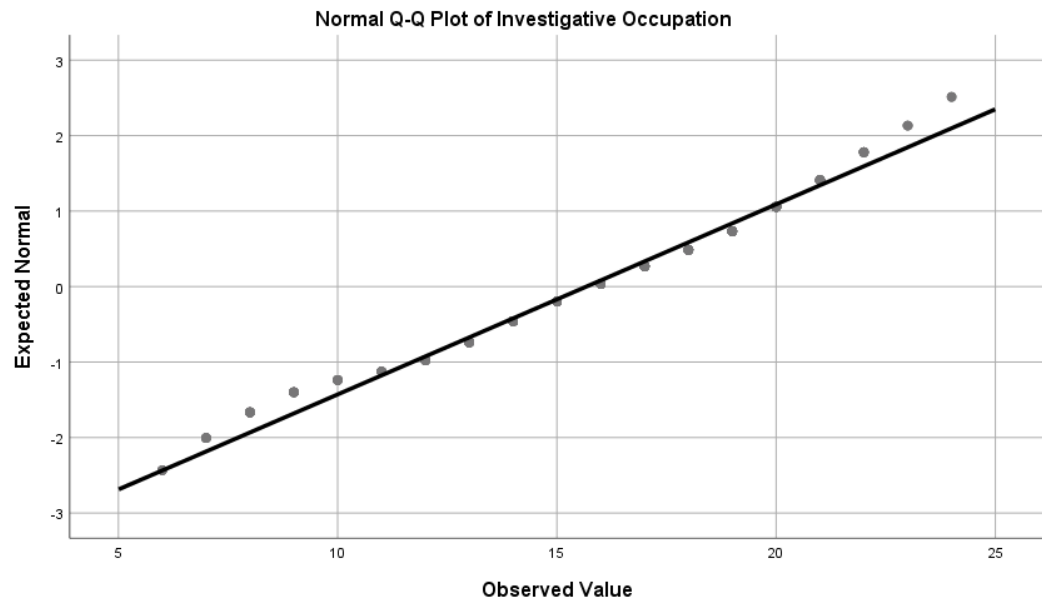
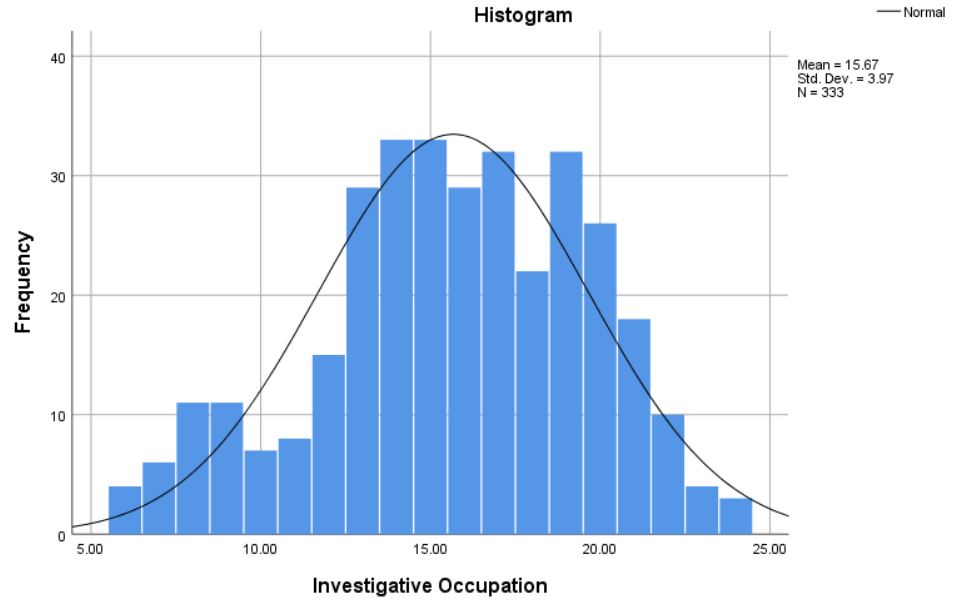


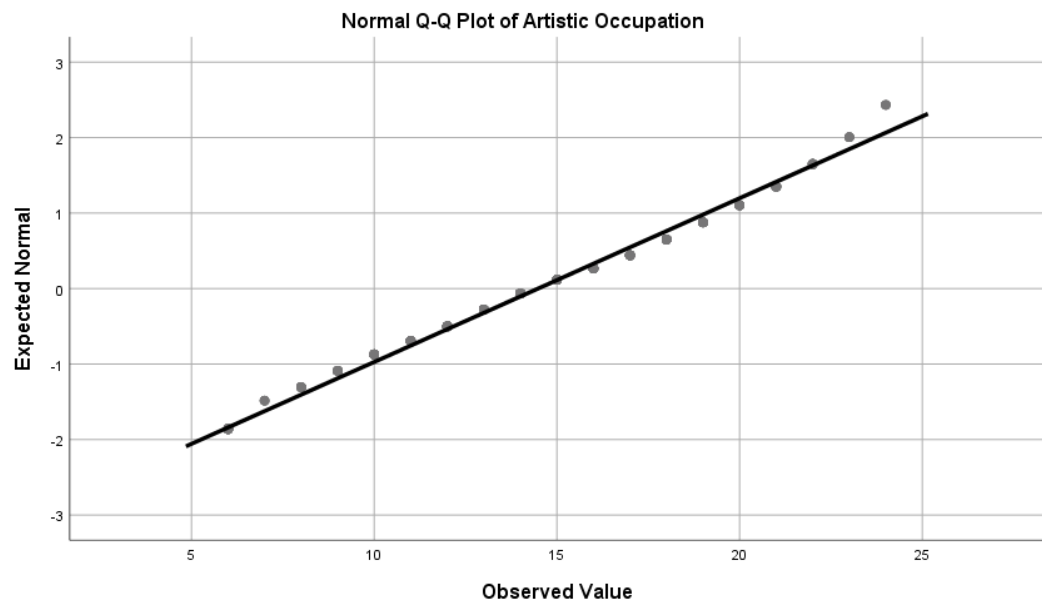
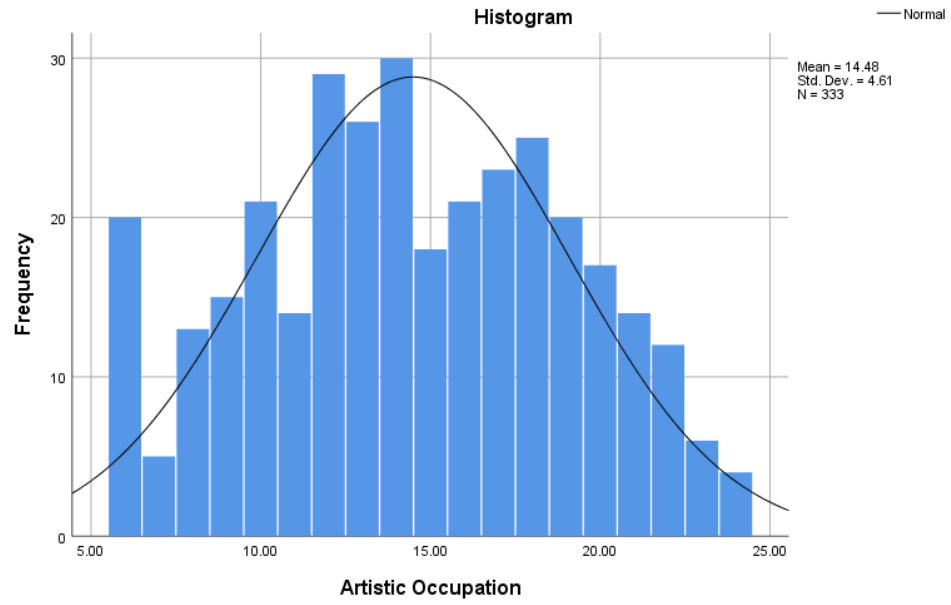


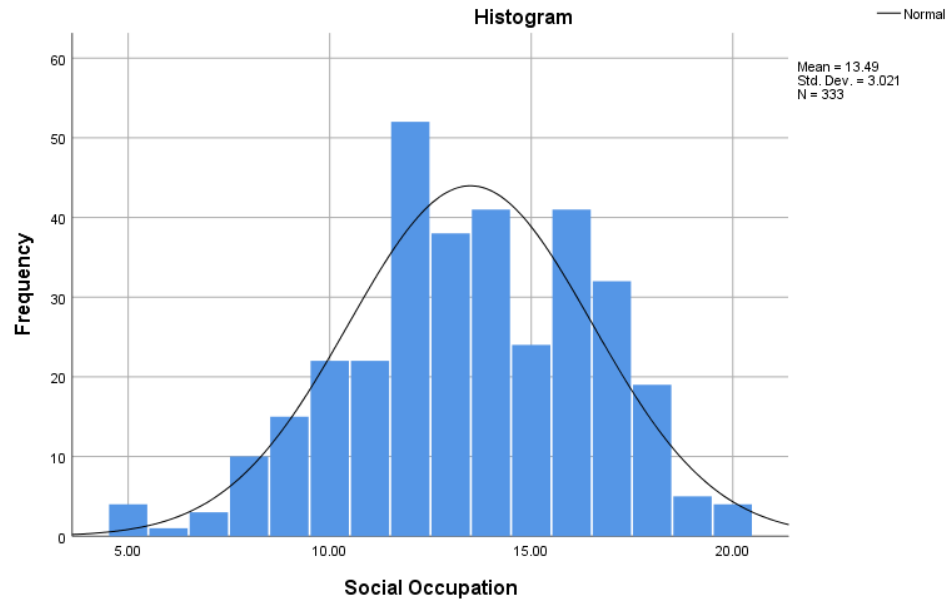


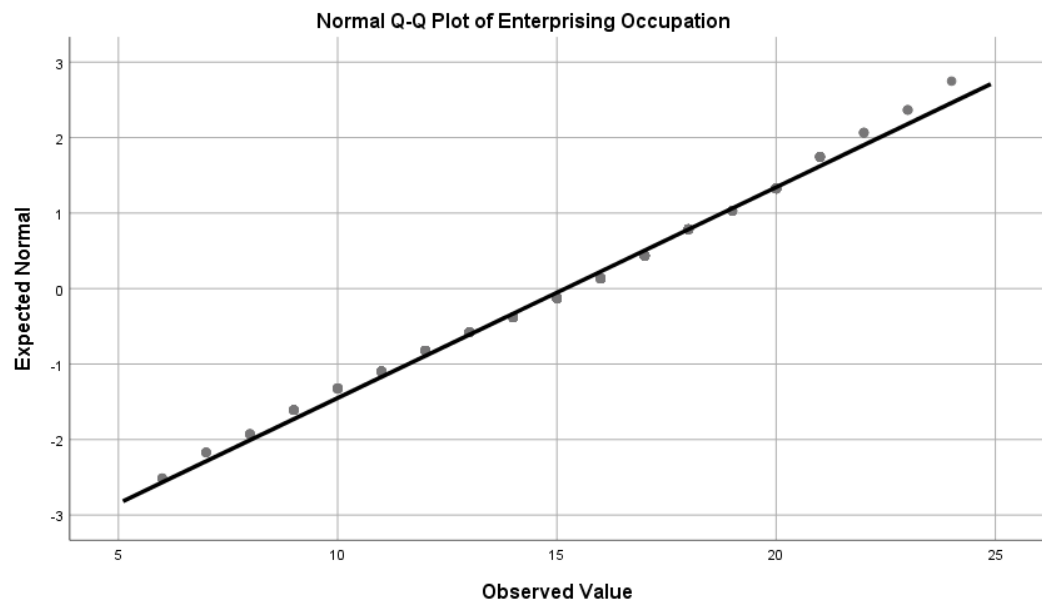
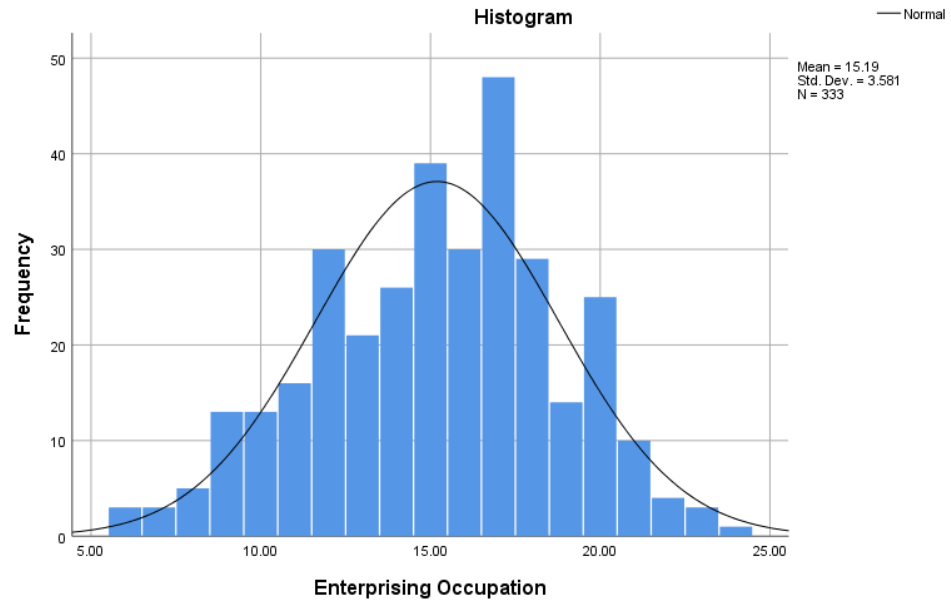
Career Choices

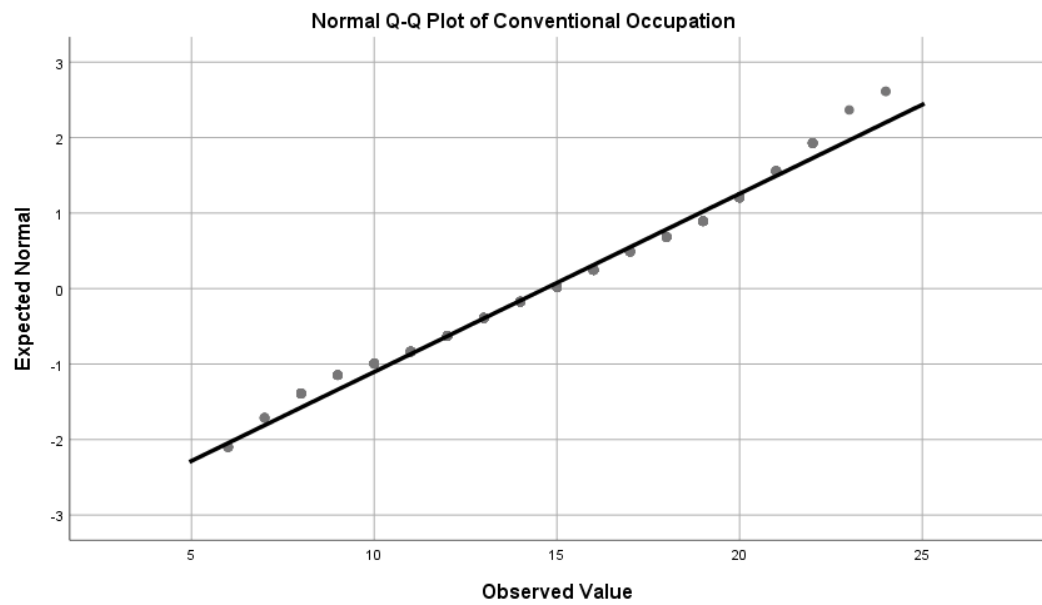
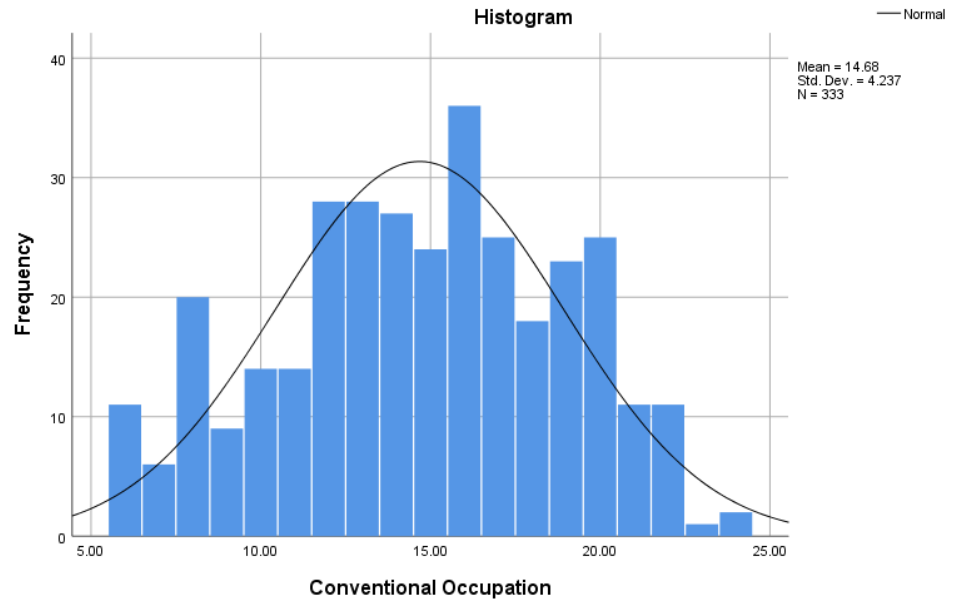








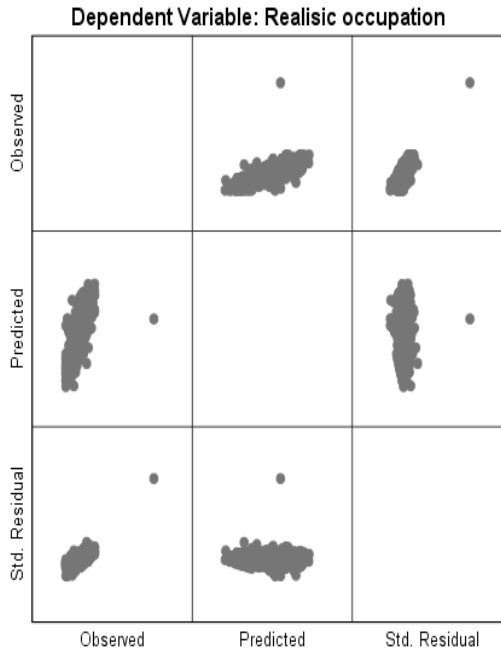




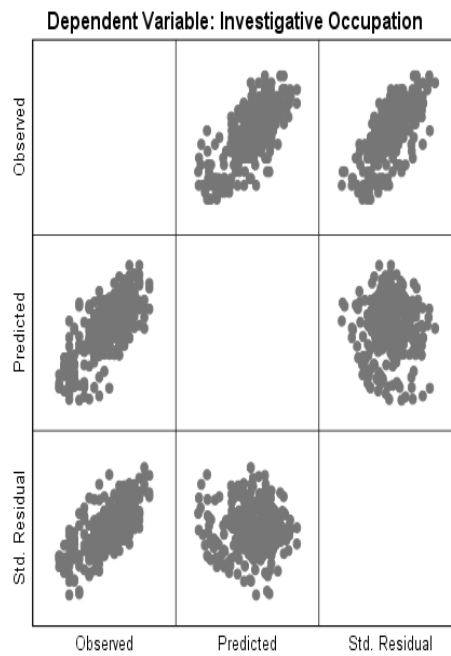
APPENDIX E

LINEARITY AND HOMOSCEDASTICITY

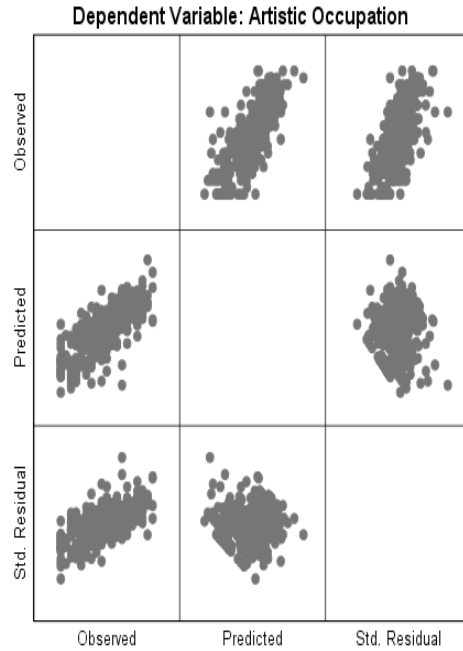
OUTPUT FOR HYPOTHESIS ONE



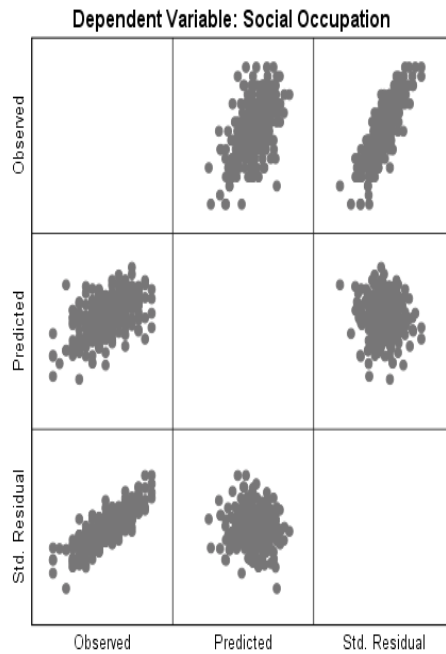
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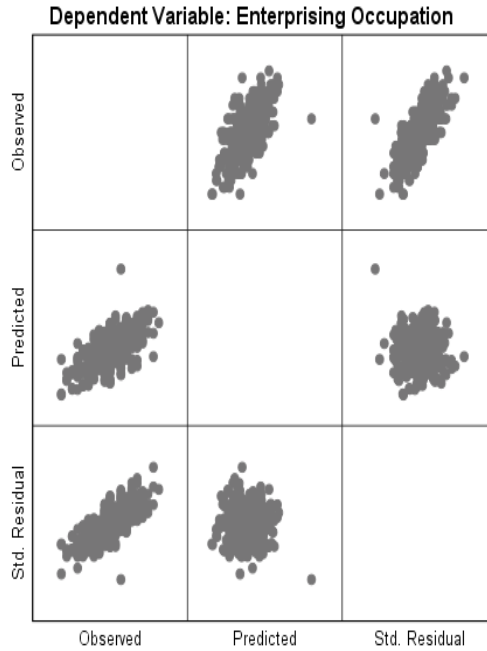
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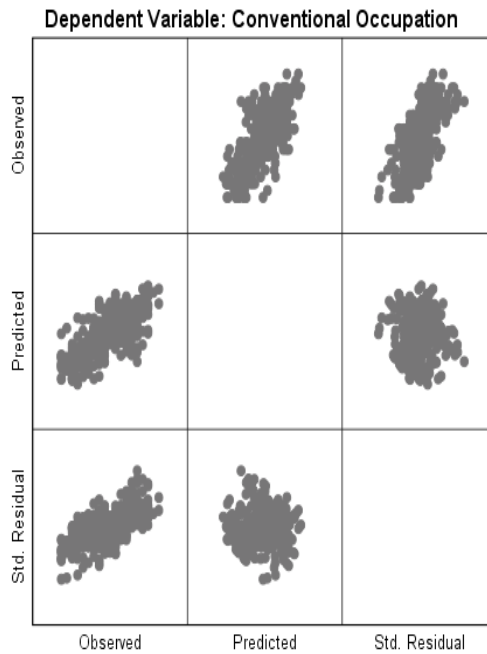
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Model: Intercept + Realistic_Personality + Investigative_Personality + Artistic_Personality + Social_Personality + Enterprising_Personality + Conventional_Personality



Model: Intercept + Realistic_Personality + Investigative_Personality + Artistic_Personality + Social_Personality + Enterprising_Personality + Coventional_Personality



Model: Intercept + Realistic_Personality + Investigative_Personality + Artistic_Personality + Social_Personality + Enterprising_Personality + Coventional_Personality

APPENDIX F

MULTIVARIATE ANALYSES ON HYPOTHESES 2, 3 and 4

Hypothesis 2

Multivariate Test for Gender Differences in Students' Personality Types

	Value	F	df1	df2	Sig.	Partial Eta Squared
Intercept						
Pillai's	.977	2288.240	6.000	326.000	.000	.977
Trace						
Wilks'	.023	2288.240	6.000	326.000	.000	.977
Lambda						
Hotelling's	42.115	2288.240	6.000	326.000	.000	.977
Trace						
Roy's	42.115	2288.240	6.000	326.000	.000	.977
Largest						
Root						
Gender						
Pillai's	.125	7.767	6.000	326.000	.000	.125
Trace						
Wilks'	.875	7.767	6.000	326.000	.000	.125
Lambda						
Hotelling's	.143	7.767	6.000	326.000	.000	.125
Trace						
Roy's	.143	7.767	6.000	326.000	.000	.125
Largest						
Root						

Source: Field Survey (2022); df1 = Hypothesis df; df2 = Error df

Hypothesis 3

Multivariate Test for Differences in Students' Personality Types with respect to Programme of Study

	Value	F	df1	df2	Sig.	Partial Eta Squared
Intercept						
Pillai's	.982	2883.555	6.000	322.000	.000	.982
Trace						
Wilks'	.018	2883.555	6.000	322.000	.000	.982
Lambda						
Hotelling's	53.731	2883.555	6.000	322.000	.000	.982
Trace						
Roy's	53.731	2883.555	6.000	322.000	.000	.982
Largest						
Root						
Programme						
of Study						
Pillai's	.647	8.070	30.000	1630.000	.000	.129
Trace						
Wilks'	.450	9.499	30.000	1290.000	.000	.148
Lambda						
Hotelling's	1.019	10.884	30.000	1602.000	.000	.169
Trace						
Roy's	.797	43.324 ^c	6.000	326.000	.000	.444
Largest						
Root						

Source: Field Survey (2022); df1 = Hypothesis df; df2 = Error df

Hypothesis 4

Multivariate Test for Differences in Students' Personality Types and their career choice with regards to Religion

	Value	F	df 1	df 2	Sig.	Partial Eta Squared
Intercept						
Pillai's Trace	.881	402.878	6.000	325.000	.000	.881
Wilks' Lambda	.119	402.878	6.000	325.000	.000	.881
Hotelling's Trace	7.438	402.878	6.000	325.000	.000	.881
Roy's	7.438	402.878 ^b	6.000	325.000	.000	.881
Largest Root						
Religion						
Pillai's Trace	.076	2.151	12.000	652.000	.013	.038
Wilks' Lambda	.924	2.180 ^b	12.000	650.000	.011	.039
Hotelling's Trace	.082	2.210	12.000	648.000	.010	.039

Source: Field Survey (2022); df1 = Hypothesis df; df2 = Error df