

**DEMOGRAPHIC FACTORS, CAREER PERSONALITY TYPES AND
SELF-EFFICACY AS PREDICTORS OF CAREER INDECISION AMONG
COLLEGE STUDENTS IN MACHAKOS COUNTY, KENYA**

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DECLARATION

I declare that this research project is my original work and has not been presented in any other university/institution for consideration. The research project has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, the sources are specifically accredited through referencing in accordance with anti-plagiarism regulations.

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I confirm that the work reported in this project was carried out by the candidate under my supervision as the University supervisor.

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DEDICATION

To my adorable children; Jediael, Jedidah and Jermaine, your steadfast encouragement in all that I do continues to inspire me daily! May the love we share continually deepen as we continue to share the beautiful gift of life together. You are precious gems in my life!

I love you!

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ABBREVIATIONS AND ACRONYMS

ICT	Information and Computer Technology
KMTC	Kenya Medical Training College
KUCCPS:	Kenya Universities and Colleges Central Placement Service
RIASEC:	Realistic, Investigative, Artistic, Social, Enterprising and Conventional
SPSS:	Statistical Package for Social Sciences
MTTC	Machakos Teachers Training College

ABSTRACT

Career decision making stands out as a significant and complex milestone college students have to make. Making this major decision has been made difficult by the rapid growth in information technology, industrial growth, the ever increasing job dynamics and competition. Research has shown that about 50% of post-secondary learners encounter career indecision problems and has become a major issue presented by students for counselling in institutions of higher learning. This study sought to establish the extent to which demographic characteristics of gender, age and course of choice, career personality types and self-efficacy predict career indecision among college students. The objectives of the study were to ;(i) establish the career personality types of college students;(ii) investigate the relationship between career personality types and career indecision; (iii) determine the relationship between self-efficacy and career indecision; (iv) establish the relationship between gender and career indecision and (v) establish the prediction model for career indecision among college students in Machakos County. The theoretical framework of the study was based on Holland's RIASEC Career Theory and the Social Cognitive Career Theory. The study adopted a correlational study design. The sample size was 250 college students derived using purposive and simple random sampling methods from Machakos University College, Machakos Teachers Training College and Machakos Medical Training College. The main data collection tool was a questionnaire that included the RIASEC Personality Scale, the General Self-efficacy Scale, and the Career Indecision Scale. Data was analyzed using the Statistical Package for Social Sciences (SPSS). Based on the study findings 68% of the respondents had the Social personality type, 46% had the Conventional personality type, 37%, Enterprising, 35% Realistic and 18% Artistic. 40.8% of the respondents reported career indecision with 30.39% of these drawn from the Social career personality type. Though male participants reported higher career indecision (58%), no significant difference in career indecision was found due to difference in gender. It was observed that 68.8% of the respondents had high self-efficacy compared to 31.2% who had low self-efficacy. Self-efficacy significantly and highly impacted on career indecisiveness. Career indecision problem is a major issue among learners and requires to be addressed. The study recommends that the government considers including career education in the curriculum and strengthening career counselling structures especially in the secondary and tertiary levels of learning. There is need to nurture the self-efficacy of learners at all levels as it significantly contributes to career indecision among learners. The study recommends that similar studies be done in different geographical zones to determine if the study findings can be generalized to similar populations. A longitudinal study could be done to determine if there would be differences in the findings over a period of time.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This chapter gives an overview background to the study, statement of the problem, purpose of the study, the study objectives, research questions, significance of the study, limitation and delimitation of the study and assumptions of the study. It highlights the theoretical and conceptual framework of the study and gives operational definitions of terms used in the study.

1.2 Background to the Study

One of the principal goals of undergraduate education is to enable the individual to get a job after graduation and build a successful career. Unfortunately, not all students are certain about the career paths to pursue. The situation is made more difficult by advances in technology, industrialization and greater diversity in market needs (Starica, 2012). Career decision making involves consideration of many factors including personality type, skills and abilities, life goals, career preferences, and self and others' expectations, among others (Di Fabio, Palazzeschi, Asulin-Peter, & Gati, 2013). These factors contribute significantly to the high prevalence of career indecision.

Career indecision refers to inability to make career related decisions in different contexts (Crisan & Turda, 2015). It is associated with loss of control over life's choices and is

more likely to occur during periods of transition in individuals' lives (Marcionetti, 2014). Creed, Patton & Prideaux, 2006 emphasize that career indecision may occur at any moment when individuals are pondering on their careers but especially during transition points such as when choosing school subjects or university degree. It reflects one's career readiness or maturity and negatively impacts career development in terms of psychological and physical adjustment to learning or at the work place. Indecision has been found to be a result of both internal and external factors (Lin, Wu, & Chen, 2015). Internal factors are rooted in each individual's personality while external factors are out of the individual's control. This therefore points out to the need to study career indecision and understand the constructs and the processes that underlie it.

Career indecision has been identified as a major issue for both high school, college and university students (Creed, Patton & Prideaux, 2006). It is negatively associated with many career related variables, including self-efficacy and hence determines the way and extent to which individuals formulate career goals through its influence on career related thoughts and anxiety especially among first year university and college students (Goliath, 2012). Since the decision making process is complex, students encounter difficulties when confronted with the need to make important career decisions (Di Fabio et al., 2013).

Studies done in the US indicate that between 20%-60% of students joining institutions of higher learning are undecided about their career choices (Adedunni & Oyesoji, 2013; Onoyaseet al., 2009, cited in Ogutu, 2017). The International Labour Organization's

report (2011) cited in Ogutu (2017) confirms that many young people lack knowledge about the world of work and warns of social unrest and political upheaval due to the less than attractive job market outlook for many youth in African countries. It has been documented that half or more than half of all tertiary education students experience career indecision and it continues to be a major reason for seeking counselling among many tertiary level learners (Nota, Ferrari, Solberg, & Soresi, 2007; Kelly & Pulver, 2003). Research by ACT (2001) indicated that there was a 1.5% increase in career indecision among college students every five years.

Research on career indecision has taken a number of perspectives both internationally and locally. One of the perspectives focuses on the role of emotional and personality-related indecision, finding a negative and significant correlation (Santos, Wang, & Lewis, 2018). In Africa, some studies have focused on individuals' socio-economic backgrounds in terms of the context they live in and financial backgrounds. For instance, Ngesi (2003) as cited in Shumba and Naong (2012) suggest that poor financial backgrounds of students from disadvantaged communities deter them from selecting specific educational programmes and careers. Such students will avoid careers that require long periods of training and high cost. The implication is that students from lower socio-economic backgrounds do not have the same space to make career-related decisions as their counterparts from high socio-economic status. Among Nigerian youth (Salami, 1999, as cited in Shumba & Naong, 2012), wrong career choice making is attributed to ignorance, inexperience, peer pressure, advice from friends, parents and teachers, and job-related

prestige. Additionally, research has reported the important role played by peers. For instance, Igbiniedion (2011) cited in Ooro (2017) found that in Nigeria, peer pressure and counsel from friends were predictive of career choices. These studies among others confirm the need to explore further the construct of career indecision.

In Kenya, a broad body of research also exists in the area of career related constructs. Some studies (Muraguri, 2011 as cited in Maina, 2013) indicate that personal and cultural values, family background including parents' support and encouragement and work values, career expectations and career guidance influence career choice. Other studies have highlighted the role of academic achievement, socio-cultural factors and economic factors (Munyingi, 2012). Personal factors of age and gender, peer influence and parental guidance (Ooro, 2017); job availability, advancement opportunities, job security and prestige have also been studied as predictors of career decision making. Youth have also been found to choose their career based on the fringe benefits associated with a particular profession such as financial remuneration, job security, job accessibility, and satisfaction (Ryan and Deci, 2000; Edwards and Quinter, 2011; Bakar et al., 2014).

Although research has been done in developed countries on the connection between these various career choice related variables, comparatively fewer studies have been carried out in developing countries among college students. Most of the research related to career choice done in Kenya has focused on factors that influence career decision making, thereby giving little attention to underlying psychological constructs that

influence the process of decision making. Studies in Kenya have focused more on career choice rather than the process of decision making. Additionally, scarce research in Kenya exists on individual characteristics that predict career decision making, for instance, on the role of self-efficacy in career related decision making (Migunde, Othuon, & Mbagaya, 2015; Ogutu, 2017;).

Though the government of Kenya has a structured way of placing students to tertiary institutions formerly through the Kenya Universities Joint Admission Board and currently through the Kenya Universities and Colleges Central Placement Service, placement is majorly done based on performance with little or no consideration of a student's career personality type. A study by Maingi (2007) revealed that 63% of students who join public tertiary learning institutions in Kenya are hardly admitted to pursue courses of their choice thus exacerbating the problem of career indecision. A large percentage of tertiary level students are therefore struggling with settling on courses they did not apply for. It is therefore necessary that more attention be given to research on the psychological mechanisms of career indecision among college students in Kenya.

This study therefore aimed at establishing the extent to which selected personal demographic factors, career personality types and self-efficacy predict career indecision among college students in Machakos County. Machakos County was chosen based on the fact that no similar research has been done in the county and that the county has several

government institutions of higher learning and thus providing an adequate population to carry out this research.

1.3 Statement of the Problem

Students in college are faced with the need to choose academic directions to guide them towards specific future career goals. Unfortunately, despite concerted efforts from families and government to place youth towards desirable career paths, many young people still encounter difficulties in career decision making, and in the transition from high school to work-related training. This leads to situations where people are employed in areas out of line with their professional training and interests. Such situations are likely to result in work-related frustration, low motivation and productivity. Career indecision is linked to a number of variables including inadequate family support, peer interactions, career-related barriers and social support perceptions, identity-related factors, career self-efficacy beliefs and decision-making skills, among others. It is also evident that some students insist on studying courses without basic foundation because of the inherent prestige attached. Such students are likely to lose interest, and more likely not to complete their training.

While a broad body of research conducted globally on career choice exists, majority of local studies broadly focus on general factors that predict career choices, the possible career choices and the prevalence of these choices among students. Additionally, available research focuses on career choices of people in employment and hence ignores

the foundations of career decision making at colleges and university levels which have great impact on career progression. It is therefore important to understand the extent to which underlying psychological factors for instance, self-efficacy, career personality type predict career indecision among students which greatly affects their success in the career paths chosen.

Though similar studies have been carried out in other learning institutions in Kenya for example at Maseno University by Atela, Agak & Othuon, (2020) and at Kenyatta University by Gitonga, C M., 2012, no similar study has been conducted in Machakos County neither has there been a study integrating respondents from various institutions of higher learning within one county. Thus, the study aimed at filling in this gap by examining how personal demographic factors, career personality types and self-efficacy predict career indecision among college students in Machakos County. The findings of this study will inform future research and policy making in relation to career development not only within the county but also locally and internationally.

1.3.1 Purpose of the Study

The purpose of the study was to establish the extent to which demographic factors, career personality types and self-efficacy predict career indecision among college students in Machakos County.

1.3.2 Objectives of the Study

The objectives of the study were to:

- i. Establish the career personality types of college students in Machakos County.
- ii. Investigate the relationship between career personality types and career indecision among college students in Machakos County.
- iii. Determine the relationship between self-efficacy and career indecision among college students in Machakos County.
- iv. Establish the relationship between gender and career indecision among college students in Machakos County.
- v. To establish the prediction model for career indecision among college students in Machakos County.

1.3.3 Research Questions

The study sought to answer the following research questions:

- i. What are the career personality types of college students in Machakos County?
- ii. What is the relationship between career personality types and career indecision among college students in Machakos County?
- iii. What is the relationship between self-efficacy and career indecision among college students in Machakos County?
- iv. What is the relationship between gender and career indecision among college students in Machakos County?

- v. Which is the best prediction model for career indecision among college students in Machakos County?

1.4 Significance of the Study

Self-knowledge on individual career personality type was identified as important in helping college students make better career choices and to identify career environments that are suitable for them. This knowledge may be used to develop a tool for use in assessing career choice suitability for new college students. The information obtained may be used to provide the students with information that helps them choose a career path that matches their career personality type for success in the work environment. Colleges can utilise the findings of the study to develop quality class and course environments that fit students career personality types.

Findings will also provide requisite information to counsellors and academic departments at colleges and universities on the factors that contribute to career indecision among learners and can use this as a basis for developing career counselling models. The Kenya Universities and Colleges Central Placement Service (KUCCPS) may use this information to improve on their criteria for student placement. The Ministry of Education may use the study findings to start programmes that promote career decision-making competencies among learners. Finally, these findings add to the body of knowledge on psychological mechanisms underlying career related decision making and prompt further research in the area.

1.5 Limitations and Delimitation of the Study

1.5.1 Limitations of the Study

Data was collected at one point in time and thus did not allow for follow up of the learners to establish adherence to the career choices they had made. The study did not establish if there were other factors contributing to career indecision among the respondents other than those studied. Participants were drawn from only three colleges in Machakos town therefore the research findings cannot be generalized to all college students. The researcher had no control over social desirability bias that may occur while using self-report as a method of collecting data. Using the mixed data collection method meant that the data collected needed to be transformed in a way that both types of data could be integrated during the analysis, which time was consuming. Since data was collected from three different learning institutions, it meant that the researcher had to seek approval to collect data from each institution separately and collect data at the convenience of each institution and this took more time than expected.

1.5.2 Delimitation of the Study

This study focused solely on demographic factors, career personality types and self-efficacy as the independent variables of the study and career indecision as the dependent variable. The study was carried out in colleges within Machakos County only.

1.6 Assumptions of the Study

The researcher assumed that the students sampled for the study were representative of all college going students and that they encountered career related indecision. It was assumed that the respondents would be honest in answering the questionnaire. The research also assumed that only demographic factors, career personality types and self-efficacy influence career indecision.

1.7 Theoretical and Conceptual Framework

1.7.1 Theoretical Framework

The study used the Holland's RIASEC Career Theory and the Social Cognitive Career Theory as the basis of its theoretical framework.

a. Holland's RIASEC Career Theory

Holland's RIASEC Career theory proposes that choosing a career, or tertiary education or training program that matches, or is similar to one's personality is most likely to lead to one's career satisfaction and success (Holland, 1997; Holland, Powell, & Fritzsche, 1997). The theory is based on four tenets that explain how one develops career interests. The tenets are; people can be grouped into Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C) career personality types; career environments are based on the six career personality types; individuals show interest in career environments which match their personality type; and that it is of importance that

one's career personality match with the career environment as this influences their behaviour (Holland, 1997).

This theory was chosen as it strongly relates one's career personality type to the career environment. The career environment in this study is the academic programme chosen by the college students. This theory has also been used by other researchers to investigate the relationship among career personality types and other career related variables including self-efficacy and career indecision. It takes a problem solving and cognitive approach to career planning and it has been very influential in career counselling. Previous literature has found a relationship between Holland's typology and one facet of career decision making, that is, exploration. One such study was done by Nauta (2007) among 113 students (12 male and 101 female) with a mean age of 20.51 years ($SD= 0.98$) at a large Midwestern university in the US. The study found that realistic, artistic, and conventional interests were positively associated with self-exploration; while investigative and enterprising interests were negatively associated with such exploration. This theory was also used by Gitonga, Rukangu, Orodho, Wang'eri, and Kigen (2014) in their *ex-post facto* study among 389 undergraduate students in Kenya and found a significant relationship between career personality type and choice of degree program. The theory was used in the study to establish relationships between career personality type and career indecision.

b. Social Cognitive Career Theory

The theory by Lent, R.W., Brown, S.D. & Hackett, G., (2000) seeks to explain three interconnected aspects of career development ; how basic academic and career interests develop, how educational and career choices are made, and how academic and career success is obtained. The theory proposes that multiple factors predict career related decision making. These factors include career interests, and career self-efficacy that interact with contextual factors including family background, type of school attended, academic self-concept and learning experiences on career development. The theory reiterates the central role of self-efficacy in influencing individuals' interests which ultimately influence career choices. For instance, individuals who are confident in their abilities to undertake particular tasks are more likely to pursue the task persistently and successfully (Lent et al., 2000). The theory further emphasizes that individuals choose pathways where positive outcomes are expected (Lent et al., 2000).

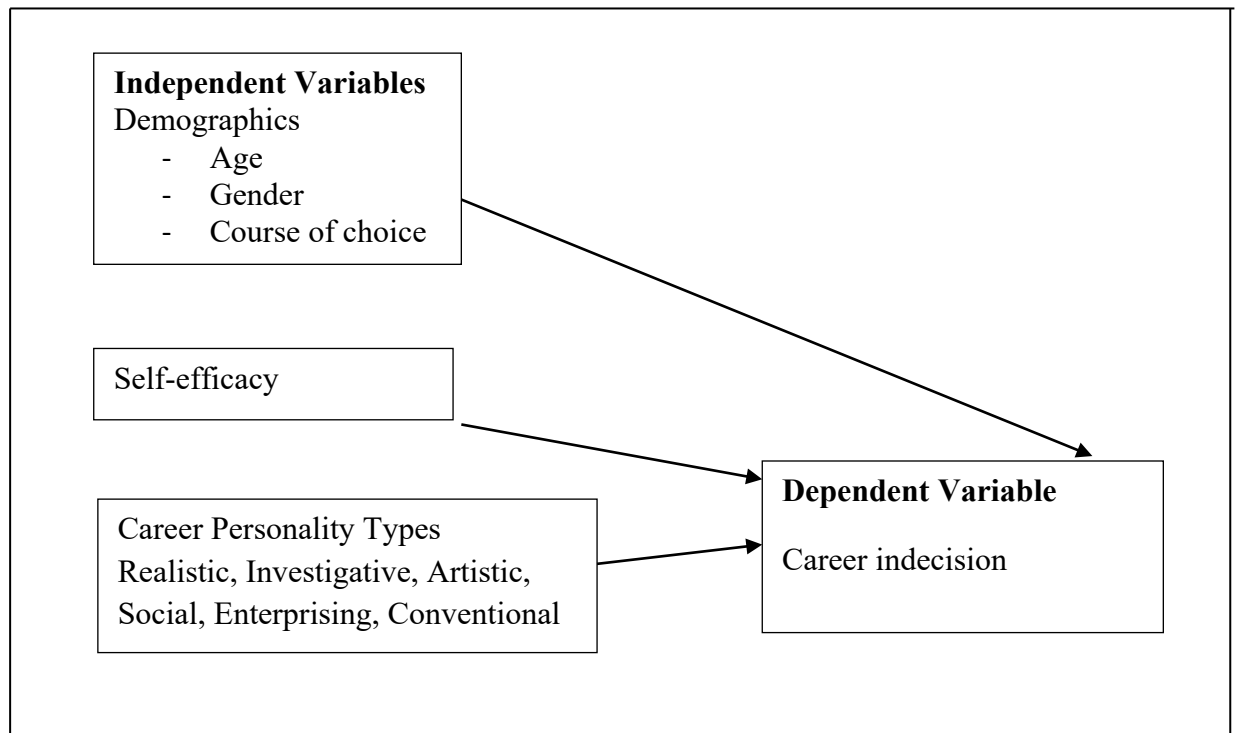
This theory was found relevant for this study because it helps explain the relationships between self-efficacy and career indecision. In placing self-efficacy at the centre of career related decision making, the theory suggests that self-efficacy highly predicts individuals' confidence, persistence and determination that are important in decision making (Ogutu, 2017).

1.7.2 Conceptual Framework

The independent variables of the study were demographic factors, career personality type and self-efficacy whereas the dependent variable was career indecision.

Figure 1.1

Demographic and Psychological Predictors of Career Indecision



The conceptual framework indicates that demographic factors, career personality types and self-efficacy singly impact career indecision.

1.8 Operational Definition of Terms

Career indecision: The inability of college students to decide on a career path confidently or having selected but yet experiencing high levels of uncertainty about the choice.

Career Personality types: Classification of college student's characteristics that make one more suitable for one career and not another based on Holland's career theory. These career personality types are; Realistic, Investigative, Artistic, Social, Enterprising and Conventional.

Self-efficacy: The college learners' confidence in their competence in making decisions, completing tasks successfully and meeting their set goals.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

Literature was reviewed in this chapter in line with the objectives of the study. A review of career personality types, self-efficacy, and gender differences in relation to career indecision was done. A summary of the literature reviewed was done.

2.2 Career Personality Types and Career Indecision

According to Holland's theory, choosing a degree or college training program or career that matches, or is similar to one's personality is most likely to lead to one's career satisfaction and success. Research done on college students has persistently supported Holland's theory (Hogan & Ones, 1997; Osipow, 1999; Pike, 2006; Gitonga et al., 2014). It has been used in research to study various variables related to career choice such as career indecision among tertiary education students (Smart, Feldman, & Ethington, 2000; Tracey & Darcy, 2002). One of the major focuses of this study was to find out if there was a relationship between career personality types and career indecision among college students.

Holland (1997) identified six personality categories which he called RIASEC model meaning; Realistic, Investigative, Artistic, Social, Enterprising, Conventional

personalities and work environments. The realistic type of individual has athletic or mechanical abilities, enjoy working with tools, machines, nature or prefer to working in the open. An individual with an investigative type of personality is observant, enjoys learning, investigating, evaluating, analysing and or solving challenges. The artistic personality loves art and innovation and has a high sense of intuition. They love working in free environments and are creative and imaginative. The social career personality likes to work with people. They enjoy helping, enlightening, informing, training, or curing them. They are gifted with words.

The enterprising type work best with people to influence, convince, direct or supervise them for organizational goals or monetary gain. The conventional enjoy working with figures, have accounting or mathematical ability, are keen on details and adhere to commands to the latter (Holland, 1997). The RIASEC career classification provides college students with clusters of occupations that can be considered while making current and future career decisions (Nauta, 2010). A study by Pike (2006) on career priorities and expectations of college students confirmed that information on one's career personality can aid the student in choosing vocational environments that match with who they are. On the other hand, this study chose to examine the degree program as the student vocational environment and see if there is a relationship between this and the students career personality types.

Research has documented that most students are usually faced with indecision on a career choice (Issa&Nwalo, 2008; Nota et al., 2007). Research by ACT (2001) indicated that there is a 1.5% increase in career indecision among college students in every five years. Research by Osipow (1999) on career indecision among students indicates that one of the outcomes of the incongruity between one's personality type and one's choice or prospective choice of academic programme is likely to be the inability to decide. If a student's choice is incongruent with the tenets of Holland's RIASEC theory, they are likely to be more undecided.

A study done by Grothkopf (2006) on career making difficulties among senior high school students concluded that career indecision is associated with other psychological problems such as increased apprehension, poorer sense of worth, poor occupation decision making competencies, decreased self-efficacy and poor problem-solving skills. A study by Smart et al. (2000) on student's choice of academic disciplines showed that the relationship between career personality type and career indecision has not been extensively researched in tertiary level of learning and academic counsel. A study by Kelly & Lee (2002) to explore career decision problems indicates that research related to career indecision among college students has declined. This study therefore adds to the body of information on career indecision.

Another study done in Nigeria by Onoyase and Onoyase (2009) showed that a significant number of students did not choose careers that match their personality types. This is an indicator that the career counselling services offered to students are not adequately equipped with relevant knowledge. A probable contributing factor to this may be the lack of in-depth research on the variables that relate to career indecision. Research in Kenya has not specifically focused on career personality types. For instance, Munyingi's study (2012) on 100 purposively sampled female university students' career choices found a number of factors that influence career choice. First, academic factors that include good performance in related subjects, interest in particular subjects and counselling were cited. Second, socio-cultural factors including inspiration to pursue their parents' career and family educational background, and the social set up in which they were brought up was suggested to influence their interest in particular career pathways. Third, economic factors including cost of courses and opportunities available in the job market predicted career choices. Finally, individual characteristics for instance, attitude towards specific subjects in school, personality, self-esteem, and mental abilities were also found to influence career choices. This study clearly brings out the need to consider career personality types in making career related decisions.

2.3 Career Self-efficacy and Career Indecision

Career decision making self-efficacy is defined as the level to which the individual feels confident in his or her ability to successfully perform tasks in the career decision-making process (Di Fabio et al., 2013). It is a causal antecedent to career decision making (Creed

et al., 2006). Additionally, Guay, Senecal, Gauthier and Fernet (2003) found self-efficacy to significantly predict career decision making. Studies have found positive correlation between self-efficacy in career decisions making and vocational identity (Crisan&Turda, 2015). In fact, high levels of career decision self-efficacy are related to positive career behaviours and outcomes (Bounds, 2013). These studies have been done in other countries and thus this study was intended to generate findings that relate to college students in Kenya and specifically in Machakos.

One closely related construct studied in career decision making has been self-esteem. Like self-efficacy, self-esteem has been found to have a negative correlation with career indecision. A study by Marcionetti (2014) among 445 high school students (208 girls and 237 boys) attending 7 schools from the Italian-speaking part of Switzerland whose ages ranged from 12 to 16 found that self-esteem explained 7% of career indecision variance. This finding supports other cross-cultural studies. For instance, a survey done by Lin et al. (2015) involving 7,418 university and college juniors (3,448 males and 3,970 females) found self-esteem to be negatively related to career uncertainty. Additionally, a study by Starica (2012) in Romania among 99 high school students (52 girls and 47 boys) established that academic self-esteem was a negative predictor of career indecision. A correlational study by Crisan and Turda (2015) on a sample of 160 students (79 males and 89 females) aged 16-18 years found significant positive correlations between self-efficacy and career decisions. The higher the level of self-efficacy, the more likely individuals would be decided on their career choices.

One way of discerning the influence of self-efficacy on career decision making is through an examination of career decision making difficulties. One study in the UK reported significant correlations between self-efficacy and career indecision (Santos et al., 2018). The study carried out among university students found that career decision self-efficacy has a strong inverse relationship with overall career decision-making difficulties and its three main categories. Higher levels of career decision self-efficacy led to lower levels of difficulties. Previous studies returned similar findings on the link between self-efficacy and career indecision. For instance, Di Fabio et al's study (2013) among 361 students (187 women and 174 men) from the University of Florence whose age ranged from 23 to 27 found negative correlation between career indecision and self-efficacy. In another study by Varhegyi (2010) among 547 participants (323 women and 224 men) with an average age of 18.94 years, career decision making was found to have a correlation of 0.64 with career certainty; and a correlation of -0.38 with career indecision. Findings therefore imply that the higher the self-efficacy, the lower the career indecision.

Longitudinal studies support the finding of no significant influence of career self-efficacy on career indecision over time. A two-wave longitudinal panel design study by Creed et al. (2006) is an important starting point. The study employed 223 Grade 8 students (114 females and 108 males) whose ages ranged from 13.13 to 15.39 years ($M= 14.10$, $SD= 0.45$) at Time 1 and 166 Grade 10 students (88 males and 78 females) whose ages ranged from 15.13 to 17.36 ($M= 16.06$, $SD= 0.44$) who had completed the survey at Time 1. The retention rate was 74%. The study found no cross-lagged causal relationships between

career self-efficacy and career indecision over time. This probably points to career indecision as a state that fluctuates with time.

Studies in Africa have mostly focused on factors that influence career choice. For instance, Shumba and Naong (2012) carried out a study on a purposively selected sample of 133 first and second year students at three South African universities. Findings show that family, learner's ability, and teachers emerged as strong determinants of career choice. Scarce literature exists in Kenya on the role of self-efficacy in career related decision making. In a correlational study carried out among 362 secondary school students (50% male) in Busia County, a weak significant and negative correlation was found between self-efficacy and career decision making (Ogutu, 2017). In another study by Migunde et al. (2015) among 359 secondary school students aged 13-28 years (M= 16.5 years) in Kisumu Municipality, significant correlations between career indecision and career decision making self-efficacy were found. Higher career decision making self-efficacy was thus associated with lower career indecision scores.

Related literature in Kenya has focused on other antecedents of career related decision making. For instance, in a study among purposively sampled departments in a Kenyan university, Ooro (2017) found gender, age, peer influence and parental guidance to predict career choice. Similar findings were previously reported by Omari (2014) in his study on strategic factors that influence career choice among 115 university students at a local private university. Parents' influence, socio-economic factors and gender ranked

highest in predicting career choice. A different perspective to career choice was reported by Edwards and Quinter (2011) in their study among 332 form four students in Kisumu Municipality. Findings of their study show that job availability, availability of advancement opportunities in careers chosen, job security and prestige predicted career choice. Studies that have adopted different methodology return similar findings. For instance, Maina (2013) in a census of all university students sponsored by Compassion International ($n = 295$) found family influence, peers, role models and gender-typed roles in relation to jobs to predict career choices. From the foregoing, it is evident that studies in Kenya have focused entirely on career choice at the expense of the process of decision making. Additionally, few studies in Kenya exist on individual characteristics that predict career decision making, for instance, self-efficacy. This study will add to the body of knowledge related to these constructs that is not exhaustive in the country.

2.4 Gender Differences in Career Indecision

The existence of gender differences in career choices were captured by Bandura (2006) cited in Crisan and Turda (2015) on the level of professional effectiveness, career choice and personal development. Subsequent studies provide support for the assertion that differences in self-efficacy predict differences in career paths between males and females. Additionally, studies have shown gender differences in specific career decision making variables including anxiety about the process (Fabio et al., 2013).

Studies that have specifically focused on gender differences in career indecision have returned mixed findings. For instance, according to Hoffman and Torres (2001) as cited in Goliath (2012), females experience lower levels of early career indecision as opposed to males. Similar findings were reported by Guay et al. (2003) who examined whether there were gender differences in career indecision and found that women perceived less career indecision than men. Contrastingly, Feldman (2003) as cited in Goliath (2012) found lower indecision in females than males while other studies found no gender differences (Di Fabio et al., 2013). Longitudinal studies support the finding of no significant gender differences in career indecision. One such two-wave longitudinal panel design study was done by Creed et al. (2006) using 223 Grade 8 students (114 females and 108 males) whose ages ranged from 13.13 to 15.39 years ($M = 14.10$, $SD = 0.45$) at Time 1 and 166 Grade 10 students (88 males and 78 females) whose ages ranged from 15.13 to 17.36 ($M = 16.06$, $SD = 0.44$) who had completed the survey at Time 1. Findings of the study show no gender differences between male and female students on the measures of Career Indecision at Time 1 and Time 2.

Cross-cultural studies in career related decision making provide contradictory findings. For instance, Vahedi, Farrokhi, Mahdavi and Moradi 's study (2012) cited in Goliath (2012) among 511 male and female undergraduate students found significant gender differences in career decision making. The differences were cited to be due to inconsistent information. Females therefore scored higher on career indecision because they had inconsistent information compared to males. Similar findings from Malaysia

(Talib&Aun, 2009 cited in Goliath, 2012) among 1440 Malaysian undergraduates found significant gender differences in career indecision. Females were more likely to be undecided.

Research in Africa has gone a step further to delineate gender differences in the dimensions of career indecision. For instance, a survey study by Goliath (2012) on a sample of 224 undergraduate students (148 female) at a university in the Western Cape, South Africa, found statistically significant gender differences in the dimension “Inconsistent Information”. Additionally, statistically significant gender differences were found in “Lack of Readiness”. A narrow body of research that exists in Kenya on gender differences in career related decision making has focused on differences in career choices. For instance, Obura and Odongo (2012) cited in Ooro (2017) sought to find out what type of careers female and male students in Kisumu Municipality preferred after the completion of their fourth form. The results of the research found out that there was a big difference that was contributed by their gender. An even narrower line of research has focused on students’ demographic characteristics. In a study by Migunde et al. (2015) among 359 secondary school students aged 13-28 years (M= 16.5 years) in Kisumu Municipality, career decision making self-efficacy did not predict career indecision in both males and females. These findings pointed out to the need for further research targeting populations with different characteristics from those studied in previous studies and different locations to further understand these constructs thus prompting the need for this research.

2.5 Summary of Review of Related Literature and Gap Identification

Reviewed literature points to differences in career personality types and their link with career choice making. Literature also shows that college students experience career indecision problems making it a significant problem for students at all levels in institutions of higher learning. Majority of reviewed studies support the assertion that career personality types influence individuals' career choices. However, the extent to which career related self-efficacy influences career indecision has not been adequately studied. This study fills in this gap. Secondly, literature indicates that psychological constructs, including self-efficacy significantly predict career related decision making. Cross-cultural studies provide support. However, the limited research in Kenya makes it difficult to generalise such findings to the Kenyan population of college students. There are distinct inconsistencies in the findings of previous studies that seek to understand the extent to which gender predicts differences in career related decision making. These inconsistencies require further study in order to clarify further these inconsistencies and make recommendations for further research. Despite the continued interest in career indecision, the relationship between RIASEC personality types, self-efficacy and career indecision has received limited research attention. Available research has majorly been done outside the African continent among populations that have major cultural differences in comparison to those of this study. If the findings of these studies will qualify to be generalized to all populations, then further study with populations different from those already studied need to be done. This study considered a unique population in relation to location and type of students. The study also sampled students from three

different learning institutions unlike most studies done in the past that have their samples drawn majorly from a single learning institution.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter gives an overview of the research design, research variables, study location, study population, target population, inclusion and exclusion criteria, sample size, sampling techniques, research instruments, pre-testing, validity and reliability of instruments, data collection techniques, data analysis and logistical and ethical considerations.

3.2 Research Design

The study adopted a correlational research design. This design is useful in quantitatively studying the relations between variables and the current status of the subjects without the manipulation of variables (Mugenda & Mugenda, 2012). Therefore, the researcher collected data from the multiple research variables and used Chi-square and regression model data analysis to investigate and analyse the variables which included demographic factors, career personality types and self-efficacy as predictors of career indecision.

3.2.1 Variables of the Study

The outcome variable in the study was career indecision. The independent variables in this study were demographic factors of gender, age and course of choice, career personality types and self-efficacy. Gender, age, course of choice and career personality

types were categorical variables. These are variables that take on names or labels and do not have any numerical or quantitative meaning. Self-efficacy and career indecision were measured on an interval scale. The interval scale is a quantitative measurement scale where there is order and the difference between the two variables is meaningful and equal.

3.3 Location of the Study

The study was carried out in three government owned colleges within Machakos town in Machakos County; Machakos University College, Machakos Teachers Training College and Machakos Medical Training College. The study location was chosen because government owned colleges have a high diversity of students and programmes offered. This allowed for selection of a more representative sample. Appendix D shows the study location.

3.4 Target Population

First year students from the three government owned colleges in Machakos County were selected for the study. First year college students were selected for this study because they are in a transition season from high school to college level of learning. During this transition stage the students are expected to have made or to make a major decision on the course to study and are thus likely to be uncertain about it. Kelly and Lee (2002) identify that lack of information, lack of self-awareness and uncertainty of choice outcomes as major factors that contribute to career indecision among learners. The

placement of students in the government owned institutions of higher learning is majorly the responsibility of KUCCPS and this has not been without challenges. Due to lack of information some students have chosen courses without adequate information on the course requirements. This has resulted to students been placed in courses that they have no interest in or are not in line with their career personality types. Career guidance in high schools is not adequate enough to enable students make informed career choices and hardly are they exposed to career assessment tests such as the Holland's RIASEC Career test to enable them understand who they are and what courses suit them best. The government colleges were selected due to student population diversity. Therefore, Machakos University College, Machakos Teachers Training College and Machakos Medical Training College were deemed the most appropriate for the study due to the student government sponsorship and proximity to the study area.

3.5 Sampling Techniques and Sample Size

3.5.1 Sampling Techniques

Purposive and simple random sampling methods were used to select the colleges and the study participants respectively. The three colleges were purposively selected due to their diversity of students, having both government and self-sponsored students and proximity to each other. According to Mugenda and Mugenda (2012), purposive sampling allows the researcher to arrive at the case that has the information required with respect to the objectives of the study. The researcher found this technique to be appropriate for first year students are more likely to provide more accurate information on their immediate

career related decisions. From each institution, 10% of the target population was selected to be part of the sample according to Mugenda and Mugenda (2012). Simple random sampling was used to select a representative sample from each of the three institutions. The major reason why this method was used is because it yields unbiased representation. A random number table was used to select a representative sample from each of the three institutions.

3.5.2 Sample Size

Cochran's sample size formula (1977) for categorical data for a given alpha level with a finite population was applied in determining the study's sample size. The formula is given as

$$n_0 = \frac{Z^2 pq}{e^2} \quad (3.1)$$

Where, n_0 is the desired sample size, Z is the critical value of desired confidence level for a given test statistics, p is the estimated proportion of an attribute that is present in the population, $q = 1 - p$ and e is the chosen precision level.

The sample size of the study targeted population whose degree of variability was not known and hence a maximum variability, which is equal to 50% ($p = 0.5$) was chosen and a 95% confidence level was taken with $\pm 5\%$ precision, the calculation for the desired sample size was

$$n_0 = \frac{Z^2 pq}{e^2} = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 384.16 \quad (3.2)$$

$$\approx 385$$

Cochran went ahead and proposed a correction formula to calculate the final sample size which is given as n_1 in equation 3.3

$$n_1 = \frac{n_0}{1 + \frac{n_0 - 1}{N}} \quad (3.3)$$

Where n_0 the sample size derived from equation (3.1) and N is the population size.

Therefore, based on the Cochran's final sample size formula

$$n_1 = \frac{n_0}{1 + \frac{n_0 - 1}{N}} = \frac{385}{1 + \frac{384}{1722}} = 314.8 \quad (3.4)$$

$$\approx 315$$

By the time of this study Machakos University College had a population of 998 first year students while Machakos Teachers Training College and Machakos Medical Training College had a population of 421 and 303 first year students respectively. This data was obtained from the admission office of each of the colleges. Hence the total target population was 1722 students during the academic year 2018/2019.

From the onset of the study, it was made clear to the respondents that participation was voluntary and pro bono. In Machakos University College 100 students from the targeted population were randomly chosen and accepted, 98 and 70 participants from Machakos

Teachers Training College and Machakos Medical Training College were respectively randomly sampled. Every effort was expended to achieve the desired sample size and gender balance. The final sample size realised was 268 including 121 female and 147 male students. The sampling frame and sample size are presented in Table 3.1.

Table 3.1

Sampling Frame and Sample Size

Institution	Target	Sampled Gender		Total
		Male	Female	
KMTC	303	36	34	70
Machakos University College	998	75	25	100
Machakos TTC	421	36	62	98
Total	1722	147	121	268

3.6 Research Instruments

A questionnaire was used to collect data to establish the relationship between career personality type, self-efficacy, and career indecision. The questionnaire comprised of items from the RIASEC Personality Scale (Holland et al., 1997); the General Self-efficacy Scale (Schwarzer & Jerusalem, 1995) and the Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1980).

The RIASEC Personality Scale has 42 items; each career personality type is represented by 7 items which are not written in any specific order. The student was required to tick all the items that best describe what they enjoy doing or would enjoy to do. The career personality type of the student was then identified by totalling the number of scores

representing each career personality type. The career personality type with the highest score was presumed to be the student's career personality type.

The General Self-Efficacy Scale is a self-report measure of self-efficacy and has a reliability of Cronbach's alphas between .76 and .90. The scale consists of 10 questions comprising of a 1 - 4 scale which indicate the level at which each statement describes the student. Not at all true description has the least score of 1 and exactly true has the highest score of 4. The total score is calculated by finding the sum of the all the ten items with the total score ranging between 10 and 40. The higher the totals score the higher the level of self-efficacy.

The Career Decision Scale comprises of 19 items with item 3 – 18 providing a measure of career indecision. These are the items that were specifically picked for the study. Students indicate on a scale of 1 to 4 how closely each statement describes them. The highest score of 4 means that the statement exactly describes who the student. The lowest score 1 means that the statement does not at all describe who the student is. The higher the sum total of the scores the higher the level of career indecision. The items did not require any modification as they were all suitable and congruent with the population characteristics. A sample of the research instrument is attached as Appendix B.

3.7 Pre-Testing/Pilot Study

Pretesting was carried out to test the reliability of the items in the research instrument and the feasibility of the research design. A sample of 30 students was selected from the 3 colleges consisting of 10 students from each college. The sampling was done using simple random sampling using a random number table. The students selected for the pilot study were excluded from final study sample. The pilot study helped to pre-test the questionnaire's wording, content, language levels as well as the time required to administer the questionnaire. This ensured that the instrument would bring forth the data that would answer the research objectives. This also enhanced the reliability and validity of the research instrument.

3.7.1 Validity of the Study Instruments

The validity of a measurement tool is the degree to which the tool measures what it claims to measure (Field, 2005). The research instrument was majorly adopted from standardised scales; RIASEC personality scale, the General Self-efficacy Scale and the Career Decision Scale that are already validated. However, the respondents who participated in the piloting study confirmed the face validity, which is the researchers' subjective assessments of the presentation and relevance of the measuring instrument as to whether the items in the instrument appear to be relevant, reasonable, unambiguous and clear (Oluwatayo, 2012).

Additionally, the content validity of the study instrument was reviewed by the researchers' supervisor who is an expert in research methodology and the necessary adjustments made.

3.7.2 Reliability of Study Instruments

Test-retest method was used to test the reliability of the study instrument. This is a method where the research instrument is administered to the same sample at two different times (Field, 2005). The interval for administering the instrument was one month. The scores of both time periods were correlated, and it was found to be reliable; $> .60$ (Blaxter, Hughes & Tight, 2006).

a. RIASEC Personality Scale

The RIASEC Personality Scale (Holland et al., 1997) was administered to a sample of 30 students. A high reliability index of 0.90 was found. Table 3.2 shows the internal consistency indices.

Table 3.2
Inter – item correlations of RIASEC personality Scale

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I like to work with my hands to make objects.	170.56	299.79	0.21	0.90
I like to do research on the internet and in books.	170.35	298.57	0.36	0.90
I like movies, shows and the theatre.	170.84	299.99	0.17	0.90
I like to help and care for others.	170.22	297.24	0.43	0.90
I like organizing activities.	170.64	293.73	0.39	0.90
I like classifying and sorting my things.	170.24	297.88	0.40	0.90
I like sports and physical activities.	170.68	293.89	0.39	0.90
I like mathematics, science and computers.	170.76	294.88	0.30	0.90
I like the arts, drawing and whatever is beautiful.	171.20	296.59	0.25	0.90
I like to be surrounded with friends.	170.63	294.34	0.37	0.90
I like to persuade and convince others.	170.77	291.37	0.42	0.90
I like to have clear instructions.	170.29	295.38	0.46	0.90
I like nature and the outdoors.	170.63	291.35	0.46	0.89
I like books and feature articles that teach me things.	170.36	294.76	0.44	0.90
I am creative and imaginative.	170.51	290.31	0.61	0.89
Making friends is easy for me.	170.83	291.63	0.43	0.90
I am a good team leader.	170.68	289.13	0.53	0.89
I like order and cleanliness.	170.13	297.85	0.44	0.90
I am realistic and practical.	170.48	291.58	0.56	0.89
I am intellectual and studious.	170.55	292.06	0.48	0.89
I have a good sense of aesthetics.	170.73	292.12	0.46	0.90
I can listen to friends and understand them.	170.34	293.59	0.48	0.89
I like competition.	170.66	293.90	0.34	0.90
I am meticulous and methodical.	170.91	291.53	0.49	0.89
I am adventurous and brave.	170.69	290.69	0.49	0.89
I am inclined to doubt.	171.46	299.07	0.18	0.90
I know how to arrange colours, forms.	171.20	289.34	0.44	0.90
I am generous and helpful.	170.38	292.54	0.52	0.89
I am dynamic and energetic.	170.48	296.34	0.39	0.90
I am discreet and disciplined.	170.34	292.27	0.56	0.89
I work with precision.	170.48	292.24	0.51	0.89
I am logical and I try to understand how things work.	170.32	296.22	0.41	0.90
I like to entertain people.	171.19	293.48	0.33	0.90
I want everybody's well-being.	170.47	296.35	0.34	0.90
I know how to complete projects and I am persistent.	170.67	289.34	0.53	0.89
I work accurately.	170.53	293.57	0.48	0.89
I have good manual skills.	170.66	290.53	0.54	0.89
I am curious.	170.38	296.64	0.37	0.90
Reading blueprints and three-dimensional maps is easy for me.	171.37	291.74	0.36	0.90
I have a great ability to communicate.	170.42	296.01	0.42	0.90
I am self-assured.	170.41	296.23	0.42	0.90
I have good computer keyboarding skills and I am quick with a calculator.	170.84	292.84	0.36	0.90

b. General Self Efficacy Scale

Items from the General Self-efficacy Scale (Schwarzer& Jerusalem, 1995) were administered to the sample of 30 respondents using the test –retest reliability method and a reliability index of 0.84 was found. Table 3.3 presents the scale's inter-item correlations.

Table 3.3

Inter-item correlations of the General Self-efficacy Scale

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I find it easy to stay on to my objectives and achieve my goals.	28.34	29.43	0.48	0.83
I always find a way to achieve what I want despite any opposition.	28.39	28.23	0.57	0.82
It is possible for me to work out difficult problems if I work extra hard.	28.24	29.34	0.50	0.83
I believe I have the ability to efficiently handle sudden occurrences.	28.55	29.19	0.48	0.83
I am grateful that I have adequate potential to handle unexpected challenges.	28.49	28.22	0.58	0.82
When I am faced with a problem, I am able to reach to a number of solutions.	28.29	28.13	0.61	0.82
I am able to stay composed when facing problems because I have reliable coping abilities.	28.62	28.62	0.51	0.83
I can generally deal with any challenge I face.	28.67	28.07	0.59	0.82
When I get in difficulty, I always find a way out.	28.44	28.78	0.56	0.83
I have the ability to handle most of the problems I face if I put in the required effort.	28.22	29.20	0.49	0.83

c. Career Decision Scale

To measure students' career indecision, the Career Decision Scale (Osipow et al., 1980) was employed. A good reliability index of 0.68 was recorded. Table 3.4 presents the inter-item correlations of the scale.

Table 3.4

Inter-item correlations of the Career Decision Scale

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I am fully decided on the career of my choice and I am comfortable about the choice.	28.07	44.55	-0.14	0.72
I am aware of what I need to do to make my career choice a reality.	28.01	42.97	-0.01	0.69
Though I have identified what career is best for me, I am not studying it because if I did, I would be going against the wishes of my parents or other important people to me.	29.34	37.49	0.30	0.66
I am fully decided on the academic course I am pursuing.	28.09	42.98	-0.03	0.70
I feel so confused about deciding on a career choice because I have insufficient information about the career.	29.59	36.71	0.45	0.64
I feel depressed because everything about choosing a career seems tricky and unclear.	29.69	37.08	0.47	0.64
I have always thought I am sure of my career, but of late I feel that I am not really sure.	29.61	37.44	0.38	0.65
I desire to be completely sure that my career choice is the best one for me.	28.24	39.47	0.19	0.68
I am facing challenges with settling on one career choice from the choices I have.	29.46	36.48	0.43	0.64
I would really like to take a test to help me confirm if I am making the right career choice.	28.98	34.39	0.50	0.63
Even though I have made a career choice I really don't know exactly what my abilities and interests are.	29.32	36.57	0.40	0.65
I have decided on a career, but I am not certain if I have the right resources to implement it.	29.18	35.86	0.45	0.64
I wish I could have more information about the different careers in my field of study to help me make the final career decision.	28.88	34.36	0.49	0.63

3.8 Data Collection Techniques

A research permit was obtained from the National Commission for Science, Technology and Innovation (NACOSTI). The researcher wrote formally to the principals of the three colleges to request for permission to collect data. Permission was formally granted in writing before the date of data collection. The researcher used two research assistants who were trained for a day on the data collection procedure. The researcher agreed with the management of each of the colleges on the specific date of data collection for each college. The data collection procedure and logistics were well coordinated. The data collection process took approximately one hour which included; distributing the questionnaires to the study subjects, filling in the questionnaires and collecting them.

3.9 Data Analysis

Quantitative data was collected, cleaned and analysed using the Statistical Package for Social Sciences (SPSS). Logistic regression was used to test the null hypothesis that; demographic variations, personality type difference and self-efficacy difference do not influence career indecision significantly at $\alpha = 0.05$ significance level.

Additionally, the logistic regression tested the model career indecision prediction. The one way ANOVA analysis was conducted to test if there was any significant career indecisiveness difference among different career personality types. The Chi square test was used to test if there was statistically significant career indecisiveness difference between the two genders at $\alpha = 0.05$.

3.10 Logistical and Ethical Considerations

3.10.1 Logistical Considerations

The researcher used two research assistants who were trained for a day on the data collection procedure. Their major roles were to help in distributing the questionnaires to the study subjects, supervise the filling in of the questionnaires in a quiet and orderly manner and collecting them.

3.10.2 Ethical Considerations

The researcher sought approval to collect data from Kenyatta University Graduate School. A research permit was then obtained from the National Commission for Science, Technology and Innovation (NACOSTI). Permission from the management of the three colleges from which the data was collected from was also sought. The researcher ensured that the research instrument had items that would not harm the respondents in any way and especially psychologically. Respondents were assured that their responses would be held in confidence and their anonymity guaranteed by having no identification on the questionnaires that would jeopardise confidentiality and privacy. Additionally, informed consent was sought from respondents before research instruments were administered (see Appendix A).

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the study findings, interpretation and discussion of results. This is done following the order of objectives. This chapter is divided into three sections: Introduction, general and demographic information and results. For each objective, descriptive findings are presented followed by inferential statistics where applicable and a discussion of the findings.

The following were the objectives of the study:

- i. Establish the career personality types of college students in Machakos County.
- ii. Investigate the relationship between career personality types and career indecision among college students in Machakos County.
- iii. Determine the relationship between self-efficacy and career indecision among college students in Machakos County.
- iv. Establish the relationship between gender and career indecision among college students in Machakos County.
- v. To establish the prediction model for career indecision among college students in Machakos County.

4.2 Questionnaire Response Rate

The researcher visited the three colleges sampled for the study in Machakos County and administered questionnaires with the help of two research assistants. Eighteen questionnaires had important information missing. Follow up efforts to get the data did not yield any fruit and therefore they were not included in the final analysis. Table 4.1 gives the summary of the questionnaire response rate.

Table 4.1

Questionnaire Response Rate

Institution	Total Sampled	Gender		Total Completed
		Male	Female	
KMTC	70	36(29)	34(28)	57
Machakos University College	100	80(80)	20(20)	100
Machakos TTC	98	36(36)	62(57)	93
Total	268	152(145)	116(105)	250

The male respondents were more responsive compared to their female counterparts with 95.39% and 90.52% response rates respectively. Machakos University had 100% response rate followed by Machakos Teachers Training at 94.9% response rate and then Kenya Medical Training College at 81.45% response rate. Overall return rate was 93.28% which was considered good enough to represent the sampled respondents.

4.3 Respondents Demographic Information

4.3.1 Gender

The questionnaires that were duly filled were 250 and comprised of 145 male and 105 female students as summarised in table 4.2.

Table 4.2

Gender of the Respondents

Gender	Frequency	Percentage
Male	145	58
Female	105	42
Total	250	100

There was a fair representation of each gender in the study where 58% were male respondents and 42% were female respondents.

4.3.2 Age

The age of the respondents is summarised in table 4.3

Table 4.3

Age of the Respondents

Gender	Frequency	Mean	Std. Deviation	Minimum	Maximum
Male	145	21.98	2.19	18	32
Female	105	21.83	2.83	18	41
Total	250	21.92	2.47	18	41

The minimum age in both genders was 18 years while the maximum age was 32 and 41 years for male and female respectively. The overall mean age was 21.92 years with a standard deviation of 2.47.

4.3.3 Courses of Study

The research sample was drawn from Machakos Medical Training College, Machakos University College and Machakos Teachers Training College. The summary of the courses pursued by the respondents is presented in table 4.4

Table 4.4

Course of Study

Institute	Course	Gender		Total
		Male	Female	
KMTC	Clinical Medicine	13	06	19
	Community Health	03	05	08
	Medical Laboratory	03	02	05
	Nursing	08	12	20
	Orthopaedics	02	01	03
	Nutrition	-	02	02
MTTC	Primary Teacher 1	36	57	93
MKSU	BSc (Agriculture)	05	-	05
	B. Commerce	16	05	21
	B. Education	10	06	16
	BSc (Computer)	18	01	19
	BSc (Engineering)	27	05	32
	BSc (General)	04	03	07
Total		145	105	250

Machakos University College had more varied courses followed by Kenya Medical Training College and then Machakos Teachers Training College. Most of the science based courses like Bachelor of Science in engineering, computer science and clinical

medicine had more male respondents compared to female counterparts. About two thirds of the primary teacher 1 and nursing trainees were females.

Based on the study findings about one quarter of male respondents 20.83% were not pursuing career courses of their choice and 16.67% were also pursuing courses not in line with their career personality type.

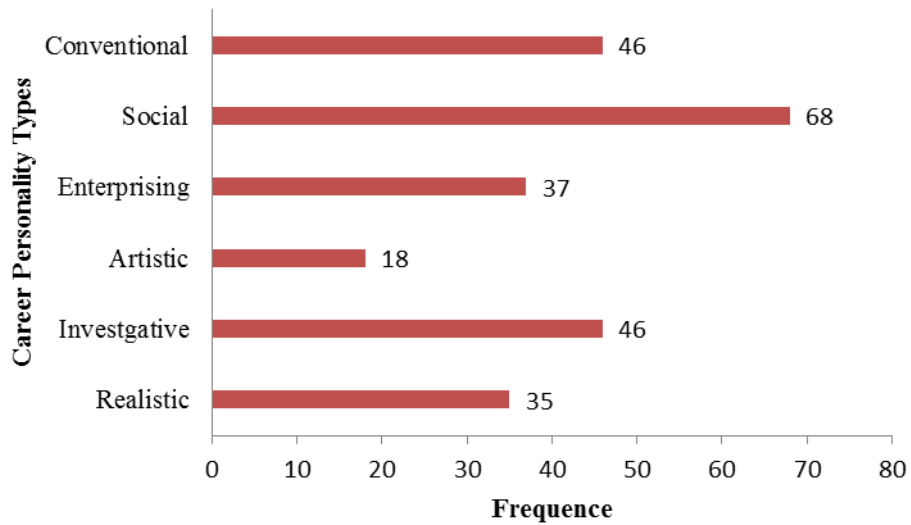
4.4 Respondents Career Personality Types

4.4.1 Career Personality Types

The first objective of the study was to establish the career personality types of college students. The RIASEC Personality five point Likert scaled items effectively mapped the respondents into the six personality types, that is, realistic, investigative, artistic, enterprising, social and conventional (RIASEC). Forty-two items on a five point Likert scale ranging from strongly disagree (1) to strongly agree (5) were administered. The respective personality types form the sub-scales of the scale comprising seven items each. The respondents career personality types are summarised in figure 4.1

Figure 4.1

Career Personality Types



Based on the RIASEC Personality five point Likert scaled items applied to map the respondents into the six personality types, it was established that almost one third of the respondents 68(27.2%) had Social career personality type. Second position was a tie of Conventional and Investigative career personality types each occupying almost one fifth 46(18.4%) of the sampled respondents. The least was Artistic career personality type with a population of 18 forming 7.2% of the total respondents. Table 4.5 gives the summary of the personality type per gender.

4.4.2 Gender and Career Personality Types

The career personality distribution per gender is summarised in table 4.5.

Table 4.5

Gender and Career Personality Types

Gender	Realistic	Investigative	Artistic	Social	Enterprising	Conven'	Total
Male	19	31	12	34	24	25	145
Female	16	15	06	34	13	21	105
Total	35	46	18	68	37	46	250

Respondents with the social career personality type were equally distributed between the two genders while two thirds of artistic and enterprising were males. Except for the social career personality type that was equally distributed between the two genders, all others had more males than females.

4.4.3 Course Studied and Career Personality Types

The courses analysis against the career personality type was conducted and the findings are summarised in table 4.6.

Table 4.6*Course Studied and Career Personality Types*

Courses	Realistic	Invest'	Artistic	Social	Enterpr'	Conven'	Total
BSc Agri	-	02	-	02	01	-	05
B. Educ	03	02	-	08	07	03	23
B. Com	02	12	-	03	03	01	21
BSc Eng	06	06	03	04	06	07	32
BSc (M, C)	04	05	02	04	01	03	19
Clinical. md	11	02	05	18	05	11	52
P1	08	14	08	27	14	19	90
Others	01	03	-	02	-	02	08
Total	35	46	18	68	37	46	250

There was no clear cut pattern with regard to the career personality type and the course pursued. However, most of the respondents pursuing the P1 course (30%) had the social career personality. Majority of those with the realistic career personality type (21.15%) respondents were pursuing diploma in clinical medicine whereas most of the respondents pursuing business related courses (57.14%) had the investigative career personality type.

The findings were in tandem with Holland (1997) identification of the individual characteristics of the six career personality types; where he noted that realistic type of personality has athletic or mechanical abilities, enjoy working with tools, machines, and nature or prefer working in the open. An individual with an investigative type of personality is observant, enjoys learning, investigating, evaluating, analysing and or solving challenges. The artistic personality loves art and innovation and has a high sense of intuition. They love working in free environments and are creative and imaginative. The social career personality likes to work with people. They enjoy helping, enlightening,

informing, training, or curing them and this came out clearly among the respondents pursuing teaching as a career (P1s).

4.5 Career Personality Types and Career Indecision

4.5.1 Career Indecision

The second objective of the study was to investigate the relationship between career personality types and career indecision. Career indecision was measured using the Career Indecision Scale on a four-point Likert scale ranging from 'only slightly like me (1) to 'exactly like me' (5). Higher scores indicate high career indecision. Based on the likert scaled statements analysis almost half of the respondents (40.8 %) were not fully decided on the career of their choice despite the fact they were enrolled into specific career courses. Table 4.7 gives the summary of the findings.

Table 4.7

Respondents Career Indecision

Decision Status	Frequency	Percentage
Indecisive	102	40.8
Decisive	148	59.2
Total	250	100.0

More than one third of the respondents were not sure of their career path despite the fact that, they were pursuing specialised courses in higher institutions of learning. This finding supports the research findings by ACT (2001) that indicated that there was a

1.5% increase in career indecision among college students in every five years. This could be attributed to lack of prior career guidance before choosing a career of study.

4.5.2 Career Indecision and Career Personality Types Distribution

The distribution of indecisiveness per career personality type was carried out and the findings are summarised in table 4.8.

Table 4.8

Career Indecision and Career Personality Types

Career	Personality Types						Total
	Realistic	Investigative	Artistic	Social	Enterprising	Conven	
Indecisive	12	18	08	31	13	20	102
Decisive	23	28	10	37	24	26	148
Total	35	46	18	68	37	46	250

The research findings showed that 30.39% of the career indecisiveness respondents were social career personalities. They also had the highest proportion of career indecisiveness of 45.59%. Artistic career personality had second highest proportion of career indecisiveness of 44.44%. The most decisive was realistic career personalities at 65.52% followed by the enterprising personality at 64.86% and then investigative career personality at 60.87%.

4.5.3 Career Indecision and Career Personality Types Relationship

The mean rank and ANOVA (Analysis of Variance) for career indecision as an ordered and continuous variable respectively was carried out against the career personality type.

The mean rank of the career indecision for each career personality was used to compare the effect of different career personality types on career indecision. Chi Square test statistics was used to test whether these career personality types had distinct different level of career indecision and therefore could be used to predict the indecision in career choice. The Kruskal- wallis rank test results are summarised in table 4.9.

Table 4.9

Kruskal-Wallis Rank Test

Career Personality Type	N	Mean Rank
Realistic	35	133.64
Investigative	46	127.59
Artistic	18	120.94
Social	68	119.51
Enterprising	37	132.58
Conventional	46	122.15
Total	250	

Based on the study findings the realistic career personalities topped the level of indecisiveness followed by the enterprising career personalities with a mean rank of 133.64 and 132.58 respectively. The respondents with social career personality were the most decisive followed by artistic with 119.51 and 120.94 mean rank respectively. The significance of the mean difference was tested using the Chi Square and the findings are summarised in table 4.10.

Table 4.10*Chi Square Test Statistics*

Chi Square	df	Asymp. Sig
2.032	5	0.845

The Krustal- wallis H test showed that there was no statistically significant difference in career indecisiveness among the career personality types. $\chi^2(5) = 2.032 < 11.070$, $p = 0.845 > 0.05$, at $\alpha = 0.05$ with a mean rank indecision score of 133.64 for Realistic, 127.59 for Investigative, 120.94 for Artistic, 119.51 for social, 132.58 for Enterprising and 122.15 for Conventional career personalities.

The career personality types indecision difference was also tested by taking the career indecision as a continuous and dependent variable against the career personality types.

The test findings are summarised in table 4.11.

Table 4.11*ANOVA Table*

Source of variance	Sum of Square	df	Mean Square	F	Pr(>F)
Personality Type	1.19	5	0.2388	0.671	0.646
Residuals	86.87	244	0.3560		
Total	88.06	249			

The ANOVA analysis test findings indicated that statistically at $\alpha = 0.05$ there was no significant difference $F = 0.671 < 2.13$, $P = 0.646 > 0.05$

These findings implied that career personality type could not be used to predict the indecision in career choice with certainty but career indecision could be associated with

other psychological problems such as increased apprehension, poorer sense of worth, poor occupation decision making competencies, decreased self-efficacy and poor problem solving skills as cited by Grothkopf in 2006 study on career making difficulties among senior high school students.

4.6 Self-Efficacy and Career Indecision

4.6.1 Self - Efficacy

The third objective of the study was to determine the relationship between self-efficacy and career indecision. Self-efficacy was measured using the General Self-efficacy Scale on a four-point likert scale ranging from 'not at all' (1) to 'precisely true' (4). High scores indicated high self-efficacy where as low scores implied low self efficacy. Table 4.12 gives the summary of the findings.

Table 4.12

Respondents Self – Efficacy Status

Self-Efficacy Status	Frequency	Percentage
Low	78	31.2
High	172	68.8
Total	250	100.0

About two thirds of the respondents had a high self-efficacy (68.8%) whereas about one third (31.2%) of the respondents had a low self-efficacy. These findings were based on the respondents' response to self-efficacy statements in the questionnaire.

4.6.2 Self-Efficacy and Career Indecision Relationship

The distribution of the number of respondents who scored both high and low self-efficacy per each career personality type is presented in table 4.13.

Table 4.13

Self- Efficacy and Career Personality Types

Self - Efficacy	Personality Types						Total
	Realistic	Investigative	Artistic	Social	Enterprising	Conven	
Low	07	16	05	24	12	14	78
High	28	30	13	44	25	32	172
Total	35	46	18	68	37	46	250

Each type of career personality had respondents with either low or high self-efficacy. However, social career personality had the highest proportion 35.3% of the respondents with a low self-efficacy and 30.8% of all the respondents with a low self-efficacy. The realistic career personality had the lowest proportion 20% of the low self-efficacy respondents while artistic career personality had the lowest percentage 6.4% of all the low self-efficacy respondents.

Chi Square test statistics was used to test whether the level of self- efficacy had distinct predictable level of career indecision and therefore could be used to predict the indecision in career choice. The Chi Square contingency table 4.14 shows the results summary.

Table 4.14*Career Indecision and Self-Efficacy Cross-tabulation*

Career Indecision	Count	Self-Efficacy		Total
		Low	High	
Indecisive	Observed	51	51	102
	Expected	31.8	70.2	
Decisive	Observed	27	121	148
	Expected	46.2	101.8	
Total		78	172	250

$$\chi^2 = \sum \frac{(O - E)^2}{E} = \frac{(51 - 31.8)^2}{31.8} + \frac{(51 - 70.2)^2}{70.2} + \dots + \frac{(121 - 101.8)^2}{101.8} = 28.37$$

There was significant difference in career indecision due to different levels of self – efficacy $\chi^2 = 28.37 > 3.84$ and $p = 0.000 < 0.05$. Therefore, given that the computed Chi Square was greater than the critical value and p value was less than 0.05, it was concluded that there was enough evidence to reject the null hypothesis varied level of self-efficacy influenced career indecision significantly at $\alpha = 0.05$ significance level.

These findings were in agreement with the Guay, Senecal, Gauthier and Fernet (2003) findings that self-efficacy could significantly predict career decision making. Bounds, in 2013 research found that, high levels of career decision self-efficacy are related to positive career behaviours and outcomes. A similar conclusion was made by Crisan and Turda in 2015 who found that there was a positive correlation between self-efficacy in career decisions making and vocational identity.

4.7 Gender and Career Indecision

4.7.1 Gender Distribution per Career Personality Types

The study sought to find out whether there were any sex differences in career indecision between male and female respondents. The respondents' gender for each career personality type was computed and the findings are presented in Table 4.15.

Table 4.15

Gender and Career Personality Types

Gender	Personality Types						Total
	Realistic	Investigative	Artistic	Social	Enterprising	Conven	
Male	19	31	12	34	24	25	145
Female	16	15	06	34	13	21	105
Total	35	46	18	68	37	46	250

Each gender appeared across the different career personality types. Generally, the males were more than their female counterparts were across all the career personality types except in the social career personality where the proportion was one to one. Males were about two thirds in artistic and enterprising career personalities.

4.7.2 Gender and Career Indecision Relationship

The Chi Square test statistics was used to determine if there was a significant change in career indecision due to change of the gender. The level of indecisiveness was categorised into two levels from the likert scaled questionnaire responses. The average

score of 1 to 2.5 was categorised as indecisive while the average score of 2.6 to 4.0 was categorised as career decisive.

Chi Square test statistics was used to test whether gender could be used to predict the indecision level in career choice with certainty. The summary of the findings are presented in table 4.16.

Table 4. 16

Career Indecision and Gender Cross-tabulation

Career	Count	Gender		Total
		Male	Female	
Indecisive	Observed	59	43	102
	Expected	59.2	42.8	
Decisive	Observed	86	62	148
	Expected	85.8	62.2	
Total		145	105	250

$$\chi^2 = \sum \frac{(O - E)^2}{E} = \frac{(59 - 59.2)^2}{59.2} + \frac{(43 - 42.8)^2}{42.8} + \dots + \frac{(62 - 62.2)^2}{62.2} = 0.002$$

There was no significant difference in career indecision due to difference in gender.

$\chi^2 = 0.002 < 3.84$ and $p = 0.967 > 0.05$. Therefore, given that the computed Chi Square was less than the critical value and p value was greater than 0.05, it was concluded that there was enough evidence to reject the null hypothesis that gender did not influence career indecision significantly at $\alpha = 0.05$ significance level.

These research findings were in agreement with Di Fabio et al., in 2013, which concluded gender as an insignificant factor in predicting career indecision. Longitudinal studies have also had similar findings that gender difference was an insignificant factor in career indecision. One such two-wave longitudinal panel design study was done by Creed et al. (2006) using 223 Grade 8 students (114 females and 108 males) whose ages ranged from 13.13 to 15.39 years. Based on gender, the male respondents had a higher proportion of those decided 57.8% compared to their female counterparts who had 42.2% decisiveness. The proportion of the female undecided respondents was 41.0%, compared to that of the male respondents that was 40.7%.

4.8 Prediction Model of Career Indecision

The final objective of the study sought to establish the best model-fit for prediction of career indecision.

Logistic regression was used to establish the likelihood of respondents' career indecision. Demographic characteristics of sex, and age, self-efficacy and career personality types were put in a model as independent variables while the dichotomised career indecision was the response variable. The study findings of the logistic multivariate analysis are summarised in table 4.17

Table 4.17*Logistic Multivariate Analysis*

Variables	Coef (B)	Std	df	Pr(> z)	Exp(B)	95% C.I for Exp(B)	
	Estimates	Errors				Lower	Upper
Intercept	0.0596	1.3849	1	0.966	1.061	-	-
Age	-0.0283	0.0576	1	0.624	0.972	0.919	1.152
Gender (Male)	-0.1110	0.2826	1	0.695	0.895	0.514	1.557
Personality	-	-	5	0.902	-	-	-
Personality (C)	-0.1102	0.5965	1	0.853	0.896	0.448	2.230
Personality (E)	-0.5382	0.6257	1	0.390	0.584	0.634	3.710
Personality (I)	-0.3771	0.6016	1	0.531	0.686	0.576	2.963
Personality (R)	-0.3657	0.6288	1	0.561	0.694	0.528	3.159
Personality (S)	-0.1101	0.5719	1	0.847	0.896	0.292	2.748
Self-Efficacy (weak)	1.5219	0.2961	1	0.000***	4.581	2.564	8.185

*Signif. codes: 0 '****' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 338.06 on 249 degrees of freedom

Residual deviance: 307.64 on 241 degrees of freedom

AIC: 325.64

Number of Fisher Scoring iterations: 4

Most of the predictors were insignificant at $\alpha = 0.05$ based on the P-Values being greater than 0.05 apart from the p-value in self-efficacy. The coefficients in logistic regression are in terms of the log odds, that is, the coefficient -0.0283 implies that a one unit change in age results in a -0.0283 unit change in the log of the odds. However, using the odds ratio labelled as Exp (B), a comparison could be made on the effect of each dummy to career indecisiveness. Using the results in table 4.15 the odds that a male has career indecision is 0.895 times the odds that a female has, with 95% confidence interval of 0.514 to 1.557 ranges.

Regarding the career personality type, the artistic personality was used as a reference and based on that, the likelihood of an enterprising personality having career indecision is 0.584 compared to artistic, having 0.634 to 3.710, 95% confidence interval of ranges. A realistic personality had 0.694 odds compared to artistic having 0.528 to 3.159, 95% confidence interval of ranges. The self- efficacy which was statistically significant at $\alpha = 0.05$ and had a positive direction meant a student with a high self-efficacy was 4.581 times decisive compared to a student with a low self-efficacy.

The full model based on the four primary regressors is summarised in equation (6)

$$\log\left(\frac{\hat{p}}{1-\hat{p}}\right) = \text{logit}(p) = y$$

$$\pi = \frac{\exp(\alpha + \beta x)}{1 + \exp(\alpha + \beta x)} = 0.06 + 0.033(\text{Age}) + 0.035(\text{Sex}) + 0.019(\text{Career personality}) + 0.414(\text{Self Efficacy}) \quad (6)$$

4.8.1 Parsimonious Prediction Model of Career Indecision

Using forward variable selection and Akaike Information Criteria (AIC) for model selection using the collected set of data, self-efficacy had the lowest AIC (313.74) hence the most qualitative and sufficient variable to predict career indecision among the college students in Machakos County.

$$y = -0.864 + 1.5(\text{Self Efficacy}) \quad (7)$$

Findings from logistic regression provide evidence that males were more likely to be undecided over their careers than females. Respondents aged below 20 and those beyond 25 years were also more likely to be undecided. Being in college at the median age decreased the likelihood of career indecision. It is also evident that when respondents are undertaking courses they chose, they are less likely to be undecided on their careers. This finding though insignificant, provides the importance of one choosing their career and its relationship with career indecision. High Self-efficacy significantly increased the likelihood of reducing career indecision. The findings also showed that respondents with the 'Enterprising' career personality type had reduced likelihood of career indecision. Put together, these findings support previous research that highlights the role of self-efficacy in career related decision making (Ogutu, 2017; Migunde et al., 2015).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

A summary of the study, conclusions and recommendations are presented in this chapter. In addition, suggestions for further research based on study findings are presented.

5.2 Summary of the Study

The aim of the study was to investigate the extent to which demographic factors, career personality types and self-efficacy predict career indecision among college students in Machakos County. The study was carried out among 250 students from three colleges in Machakos namely, Machakos Medical Training College (KMTC), Machakos University College and Machakos Teachers Training College. The sample for the study comprised 250 first year students (145 male and 105 female). A questionnaire was used for data collection.

The first objective of the study was to establish the career personality types of college students. The findings of the study showed that a third of the respondents had the social career personality type. The conventional and investigative career personality types had each one fifth of the sampled respondents. The artistic career personality type had the least number of respondents. Respondents with the social career personality type were equally distributed between the two genders while two thirds of artistic and enterprising

were males. Except for the social career personality type that was equally distributed between the two genders, all others had more males than females. There was no clear cut pattern with regard to the career personality type and the course pursued. However, most of the respondents pursuing the P1 course had the social career personality type. Majority of those with the realistic career personality type were pursuing diploma in clinical medicine whereas most of the respondents pursuing business related courses had the investigative career personality type.

The second objective of the study sought to investigate the relationship between career personality types and career indecision among college students. More than one third of the respondents were not sure of their career path despite the fact that, they were pursuing specialized courses in higher institutions of learning. The research findings showed that the social career personality type had the highest proportion of career indecisiveness. Artistic career personality had second highest proportion of career indecisiveness. The most decisive was realistic career personality followed by the enterprising personality and then investigative career personality type. The Krustal- wallis H test showed that there was no statistically significant difference in career indecisiveness among the career personality types.

The third objective of the study sought to determine the relationship between self-efficacy and career indecision among college students. About two thirds of the

respondents had a high self-efficacy whereas about one third of the respondents had a low self-efficacy. The study findings showed that there was significant difference in career indecision due to different levels of self –efficacy. Therefore, self-efficacy could significantly predict career indecision.

The fourth objective of the study was to establish the relationship between gender and career indecision among the college students. Each gender appeared across all the career personality types. Generally, the male respondents were more than their female counterparts were across the career personality types except in the social career personality type where the proportion was one to one. Males were about two thirds in artistic and enterprising career personalities. Based on gender, the male respondents had a higher proportion of those decided compared to their female counterparts. The proportion of the female undecided respondents was higher compared to that of the male respondents. However, there was no significant difference in career indecision due to difference in gender.

The fifth and the final objective of the study was to establish the best model-fit for prediction of career indecision. Findings from logistic regression showed that male respondents were more likely to have career indecision. Age was important in career decision making - being a risk factor below 20 years and above 25 years. It was also found that respondents undertaking courses they chose were less likely to be undecided

on their careers. Self-efficacy was a significant predictor of career indecision at $\alpha = 0.05$ significance level. Finally, the 'Enterprising' career personality type was found to reduce the likelihood of career indecision.

5.3 Conclusions

Based on the findings of the study five main conclusions were made.

All career personality types were represented in the study sample which confirmed one of the four tenets of the Holland's RIASEC Career theory that explains that all people can be grouped into either realistic investigative, artistic, social, enterprising or conventional career personality types.

Career indecision is an issue that requires to be addressed in institutions of higher learning. This study found out that more than one third of the respondents were not sure of their career path despite the fact that, they were pursuing specialized courses in higher institutions of learning. There was evidence that choosing one's own career path significantly reduced indecision.

Significant and negative correlations between self-efficacy and career indecision suggests that self-efficacy is important for career related decision making and that it could significantly predict career indecision. Respondents who had high self-efficacy were more certain about their career choice compared to those who had low self-efficacy. High

self-efficacy was associated with those who had chosen the course of study for themselves.

Gender differences played an insignificant role in predicting career indecision. This means that both male and female learners may experience career indecision.

Lastly among the selected explanatory variables that were predicted to influence career indecision, the students' self-efficacy was the highest predictor. Hence students' individual belief in their capacity to execute career decision should be encouraged at an early stage in life to reduce career indecision.

5.4 Recommendations

From the findings, the following recommendations were made.

5.4.1 Policy Recommendations

Students should be given opportunities to explore their career personality types in order to help them in choosing a career that best suits their career personality type.

Schools could provide trips to varied working environments to acquaint students with the real world of work where they are expected to transition to after their studies. It is expected that students will receive the much-needed mentorship necessary to understanding their career paths and building their self-efficacy.

Equal opportunities and support on career decision making should be accorded to both genders indiscriminately. This will help in reducing career indecision, which was found to affect both male and female students alike.

Activities that boost self-efficacy among the students such as use of peer models, assigning moderately difficult tasks and giving focused feedback should be practiced often in schools.

KUCCPS may consider revising their Career Guide Book for secondary schools to include more information on the considerations to make when choosing a career or course of study. Among the considerations that may require in-depth information are the career personality types and self-efficacy among other considerations.

There is need for the government through the ministry of education to consider including career education in the curriculum especially in the secondary and tertiary levels of learning. This will help learners to make more informed career related decisions and thus reduce the level of career indecision and personality mismatch in career choice.

5.4.2 Recommendations for Further Research

- i. Since the study was conducted at a single point in time, a longitudinal study could be done to determine if there would be differences in the findings over a period of time.
- ii. A similar study can be conducted but use other explanatory variables including both the environmental factors and personal traits.
- iii. Similar studies could be done in different geographical zones to determine if the study findings can be generalized to similar populations.

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APPENDICES

Appendix A: Informed Consent Form

My name is Ruth K. Walya pursuing a Master of Education degree in Guidance and Counselling at Kenyatta University.

I am carrying out a study on “**Demographic Factors, Career Personality Types and Self-Efficacy as Predictors of Career Indecision among College Students in Machakos County, Kenya.**”

I humbly ask you to respond to the attached questionnaire as honestly as you can. The information that you will provide in the questionnaire will be treated with strict confidentiality.

Do you agree to participate?

Yes []

No []

Signature:

Appendix B: Questionnaire for Students

Section A: Demographic Information

1. Kindly tick your gender.

Male Female

2. How old are you?

.....

3. Which course are you currently studying?

.....

4. In which year of study are you?

Year 1

Year 2

Year 3

Year 4

5. Are you taking the course you wanted to take?

Yes

No

6. If it is not, state the course you would have wanted to study.

.....

7. Have you fully decided on your career choice?

Yes

No

8. If not, please give reasons why you are not fully decided.

.....

.....

.....

.....

.....

Section B: Career Personality Types

In the following exercise, circle item numbers that clearly describe you.

1. I like to work with my hands to make objects.
2. I like to do research on the internet and in books.
3. I like movies, shows and the theatre.
4. I like to help and care for others.
5. I like organizing activities.
6. I like classifying and sorting my things.
7. I like sports and physical activities.
8. I like mathematics, science and computers.
9. I like the arts, drawing and whatever is beautiful.
10. I like to be surrounded with friends.
11. I like to persuade and convince others.
12. I like to have clear instructions.
13. I like nature and the outdoors.
14. I like books and feature articles that teach me things.
15. I am creative and imaginative.
16. Making friends is easy for me.
17. I am a good team leader.
18. I like order and cleanliness.
19. I am realistic and practical.
20. I am intellectual and studious.
21. I have a good sense of aesthetics.
22. I can listen to friends and understand them.
23. I like competition.
24. I am meticulous and methodical.
25. I am adventurous and brave.
26. I am inclined to doubt.
27. I know how to arrange colours, forms.

28. I am generous and helpful.
29. I am dynamic and energetic.
30. I am discreet and disciplined.
31. I work with precision.
32. I am logical and I try to understand how things work.
33. I like to entertain people.
34. I want everybody's well-being.
35. I know how to complete projects and I am persistent.
36. I work accurately.
37. I have good manual skills.
38. I am curious.
39. Reading blueprints and three dimensional maps is easy for me.
40. I have a great ability to communicate.
41. I am self-assured.
42. I have good computer keyboarding skills and I am quick with a calculator.

Section C: Self-efficacy

The following ten statements may or may not describe you. Use the 1-4 scale below to indicate the level at which each statement describes you. Please be as sincere as possible in your answers.

Key: 1 = Not at all 2 = narrowly true 3 = moderately true 4 = precisely true

S/No.	Statement	1	2	3	4
1.	I find it easy to stay on to my objectives and achieve my goals.				
2.	I always find a way to achieve what I want despite any opposition.				

3.	It is possible for me to work out difficult problems if I work extra hard.				
4.	I believe I have the ability to efficiently handle sudden occurrences.				
5.	I am grateful that I have adequate potential to handle unexpected challenges.				
6.	When I am faced with a problem, I am able to reach to a number of solutions.				
7.	I am able to stay composed when facing problems because I have reliable coping abilities.				
8.	I can generally deal with any challenge I face.				
9.	When I get in difficulty, I always find a way out.				
10.	I have the ability to handle most of the problems I face in life I put in the required effort.				

Section D: Career Indecision

Tick only one answer for each statement. Kindly ensure that you respond to all the statements.

Key: 4 = Exactly like me 3 = Very much like me

2 = Only slightly like

me 1 = Not at all like me

S/NO.	Statement	4	3	2	1
1.	I am fully decided on the career of my choice and I am comfortable about the choice.				
2.	I am aware of what I need to do to make my career choice a reality.				

3.	Though I have identified what career is best for me, I am not studying it because if I did, I would be going against the wishes of my parents or other important people to me.				
4.	I am fully decided on the academic course I am pursuing.				
5.	I feel so confused about deciding on a career choice because I have insufficient information about the career.				
6.	I feel depressed because everything about choosing a career seems tricky and unclear.				
7.	If I had the qualifications or the chance, I would become a..... However this is impossible for now.				
8.	I have always thought I am sure of my career, but of late I feel that I am not really sure.				
9.	I desire to be completely sure that my career choice is the best one for me.				
10.	I am facing challenges with settling on one career choice from the choices I have.				
11.	I would really like to take a test to help me confirm if I am making the right career choice.				
12.	Even though I have made a career choice I really don't know exactly what my abilities and interests are.				
13.	I have decided on a career, but I am not certain if I have the right resources to implement it.				
14.	I wish I could have more information about the different careers in my field of study to help me make the final career decision.				

Appendix D: Map of Machakos County



● Machakos town

Source: <https://www.google.com/search?q=map+machakos+town&tbm=isch&source>