

**INFLUENCE OF SELECTED CORRELATES ON CAREER ADAPTABILITY
OF TECHNOLOGY EDUCATION GRADUATES IN KENYA**

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OCTOBER, 2023

DECLARATION

Declaration by the Student

This thesis is my original work and has not been submitted for any academic award in any other institution. No part of this thesis may be reproduced without the prior permission of the author and/or University of Eldoret.

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DEDICATION

To Dr. Hoseah Kiplagat for his caring heart.

ABSTRACT

The current world of work is very dynamic and needs a workforce that is well suited to help accommodate the changes at the workplace. In the recent past, trainers who pursued degree programmes in technology education have been perceived to be less flexible in handling both practical and theoretical courses at their workplaces. This study sought to investigate the influence of non-academic factors, academic factors and quality of training on career adaptability of the trainers. The study was guided by Piaget's constructivist theory. This study used a quantitative research design. In the study, questionnaire was used to gather responses from 814 trainers who were Technology Education (TED) graduates, and 30 Heads of Department in Kenyan Technical and Vocational Colleges and National Polytechnics. Snowball sampling was used to obtain the required number of trainers while purposive sampling was used to obtain the Heads of Departments. The study found out that trainers who were raised in poor family backgrounds were best adapted to their career followed by those from rich background while those from middle class backgrounds were least adapted to career. With regard to gender, the study established that male trainers who pursued technology education degree programmes were more adapted to career as compared to their female counterparts. Moreover, personality of the trainers was found to have effects on career adaptability of TED graduates. It was also established that the career adaptability of the trainers was influenced by the kind of high schools they attended. Moreover, it was established that career adaptability increases with the increase in the years of experience. This research also found out that career adaptability was also influenced by the area of specialization as well as the entry behaviour of the graduates. Lastly, it was found out that the quality of training does not significantly influence career adaptability of the trainers. The study recommends that all institutions in which individuals are shaped like families, learning institutions should do all it takes to nurture career adaptability right from early childhood to adulthood. This could be achieved through creating a conducive atmosphere as well as offering experiences that can help the learners to adapt to changes at workplaces.

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ABBREVIATIONS AND ACRONYMS

BCT - Building and Construction Technology

CAAS - Career Adapt-Abilities Scale

CAAS-SF- Career Adapt-Abilities Scale- Short Form

CCI- Career Construction Interview

CCT- Career Construction Theory

COS - Computer Studies

DeKUT- Dedan Kimathi University of Technology

DFID- Department of International Development

ELT - Electrical and Electronics Technology

HoD - Head of Department

LDC- Life Design Counseling

MET - Mechanical Technology

MMUST- Masinde Muliro University of Science and Technology

MU- Moi University

MUST- Meru University of Science and Technology

MUT- Murang'a University of Technology

PMT - Power Mechanics Technology

Std.Dev. - Standard Deviation

TED- Technology Education

TTI- Technical Training Institute

TVET - Technical and Vocational Education and Training

UoE- University of Eldoret

USA- United States of America

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter covers background of the study, statement of the problem, purpose, objectives, research questions and justification of the study. Other areas covered in this chapter are significance of the study, assumptions , scope , limitations of the study, theoretical framework, and conceptual framework and operational definition of terms.

1.2 Background of the Study

Over years, the world has experienced several changes. The changes have been technological, economic, social, or moral in nature (Nurten & Oya, 2017). With these dynamics in effect, career adaptability has emerged to be a lifelong skill or vehicle that can aid individuals to navigate the various employment opportunities (Savickas, 1997) and grasp the challenging professional circumstances (Hirschi, 2009).

Basically, career adaptability is the ability of an individual to conform to changes swiftly and keep up the balance of his/her when experiencing transition of career roles (Super & Knasel, 1981). Career adaptability is an essential ability for career development and the preparation of professional individuals which involves behaviors such as planning, exploring oneself, environment as well as making decisions (Hirschi, 2009; Savickas, 1997).

Career adaptability is a multifaceted and hierarchical skill which is influenced by four profile factors: concern about the future, control of self to suit the existing niche, curiosity about future possibilities pertaining career and confidence in pursuing ambitions (Savickas & Porfeli, 2012). Career concern entails being conscious about future and coming up with plans to counter forthcoming changes, with a hopeful attitude in due regard of the future (Santili *et al.*, 2014). Career concern can also be seen as individual views related to current career as well as the ability to aim at and visualize how career will look like, that is, in the future (Rossier & Savickas, 2017).

Career control refers to the individual's potential to take charge and stand in a position to construct and set up own career. Career control enables individuals to be focused in shaping themselves and environment to meet the need at hand using self-discipline, effort, and persistence. It, in other words, involves getting in possession of the future and feeling capable of making informed career-related decisions (Ntarangwe, Asatsa & Ndung'u, 2021).

Career curiosity is the ability that an individual has to discover (innovate), explore, and retrieve information related to career development (Savickas, 2005). Career curiosity, therefore, entails delving into the intellectual process of finding the possibilities of career opportunities ideal for self, and scenarios (in terms of unforeseen changes) of the future.

Career confidence, according to Savickas & Porfeli (2012), is the ability to withstand the obstacles and the problems experienced when pursuing success. Career confidence involves being bold and strengthening oneself to pursue certain ambitions. Confidence is manifested in terms of trust and strong belief that individuals have in executing their choices and achieving certain aims in life. Career confidence is also revealed when one

shows tact to solve problems and shows prudence when handling resources to mitigate challenges emanating from emerging impediments.

Career adaptability has been a point of focus across the globe. Kenyans have not lagged behind in exploring career adaptability through research (Wainaina *et al*, 2014; Ntarangwe *et al*, 2021). Wainaina *et al* (2014) reviewed literature associated with factors influencing employee adaptability to transformation in commercial banks. In their review, they found out that resistance to transformation in commercial banks was one of the major limitations to expansion in organizations, due to its negative impacts. Ntarangwe *et al* (2021), on the other hand, studied on correlates of career adaptability among academic staff in selected universities in Nairobi, Kenya. In their research, they used correlates such as gender, age, level of education, years of experience and type of university of the academic staff to study employees' career adaptability and guide employers on what to do in order to uplift employees' performance. They concluded that employers needed to organize seminars and workshops to improve concern and curiosity among workers. They further advised that employers needed to assign employees some roles in order to boost employees' career control.

Kabare *et al* (2014) noted that individuals who work in Nairobi (Kenya's capital) in various sectors of the economy in the city exhibited an equal portion of need for career adaptability. This is now the order of the day all over the country. In a recent television interview on employability, Kenya's principal secretary from state department of public service advised Kenyan graduates to separate themselves from the sense of entitlement: the thinking that they deserve the best because they worked the best in school. Rather, they are encouraged to be ready to pick any occupation and work best as waiting for the

white-collar job they trained for might be their lifelong disappointment (Tran, 2019). Secondly, graduates are required to be flexible enough as the current world provide unclear prospects of employment for graduates from almost all professional fields (Tomlinson, 2012 ; Clarke ,2017). This syndrome of increased porosity and interaction among professional fields has not spared Technical and Vocational Education and Training (TVET) graduates (Ikinya, 2019).

Over the last ten years, Kenyan universities have injected many graduates into the country's world of job seekers. According to CUE report (2018), over 80,000 degree graduates are ejected by Kenya Universities (Public & Private) into the job market every year. In contrary, the industrial sector has not expanded to equivalent measure so as to offer ready job market to graduating masses leading to increased unemployment (Republic of Kenya, 2019). As a matter of fact, Human Development Index (2017) showed that Kenya's unemployment rate was 39.1%. This, HDI (2017) states, makes Kenya to have the highest unemployment rate in East Africa. Engineering as a professional field has faced repercussions of this occurrence greatly. In a report posted by National Media Group (2021), there were more than 30,000 engineering graduates who were unemployed. These graduates had to look for ways of survival through such means as looking for training opportunities in TVET.

TVET, as any other area that involves inculcating desirable knowledge, skills, values and attitudes in the trainees, ought to deploy professionals in pedagogy in order to guarantee quality training. However, with the existing uncertainty in employment prospects for graduates, engineers and other professionals in related fields have landed on teaching and training jobs in TVET institutions. As TVET institutions continue to have graduates

from engineering and related fields who have acquired no pedagogical training, some employers have shown preference of engineers to technology education graduates in TVET as witnessed in deployment numbers in various specialties in Table 1.1. This new phenomenon that is backed up with seemingly opinionated allegations that engineers and affiliated professionals can work better is now a thriving hindrance to employment of TED graduates in TVET institutions (Nason, 2019). This was witnessed by the 2019 deployment in Kenyan TVET institutions that landed about 2000 professionals (about two thirds of the slots advertised) from engineering and affiliated fields who have not undergone to pedagogical training at the expense of technology education graduates. This was followed by an advertisement in 2023 whose deployment criteria in about 85% of the slots advertised in technology areas specified in this study (building & construction, computer studies, electrical & electronics, mechanical and power mechanics) gave holders of higher national diploma an upper hand ; making technology education graduates to also stand a lesser chance to deployment (See the extract from the advert at the annex - Appendix IV).

This study investigated how Technology Education graduates from Kenyan universities are adaptable to career transitions at their various places of work. This is because the scope of careers held by technology education graduates is very wide and ever-changing. The need for career flexibility is, thus, big. This study investigated career adaptability of technology education graduates using such correlates as category of high school attended, personality, area of specialty, gender, year of graduation, family background, entry behavior and quality of training. Category of high school attended is the classification or type of secondary school that one attended. In Kenyan context, the categories are

national, extra county, county, sub-county and private (Nyangweso *et al*, 2019). Personality is a composition of cognition, behaviors and emotional patterns that characterize an individual (John *et al*, 2008) . Area of specialty refers to the pursuit or trade to which a graduate devoted time and effort to be grounded on the body of knowledge and skills therein (Harris, 1969).

Gender simply implies the two sexes (male and female). This is the definition that is borrowed from social and cultural views rather than biological ones. Year of graduation implies specific time students exited their respective universities having graduated. Family background is the type of family one hails from. This can refer to social and racial origins, socio-economic status , or type of experience that one has. This study will focused on family background in terms of financial status. Entry behavior is a composition of prerequisite knowledge, attitudes, or skills which a graduate has that are relevant to the area of specialty that are considered before the graduate released into the job market.

In the Kenyan context, it is of essence to incorporate gender in studies involving male and female respondents as there is need to call for affirmative action in cases where one gender is performing critically lower than another in a research study. Besides, there are insufficient findings to explain how the phenomena exhibited by humans are associated with personality in frontier studies in Kenya. Moreover, in Kenyan context, individuals' capacity to handle issues and become the people they are, strongly depend on their family background and schooling life (category of school attended) as these institutions offer a foundation upon which an individual's general life is based. Individuals can only deliver and show tact (while practicing in various capacities) depending on their cognitive levels

(entry behavior) as well as the quality of training they undergo. Finally, to scrutinize career adaptability of technology education graduates from Kenyan universities, it is of essence to employ a multidimensional approach by checking on career adaptability across years of graduation and areas of specialty. Besides, there are many other factors that form correlates of career adaptability. However, this study finds it necessary to limit itself to these factors while investigating career adaptability of technology education graduates from the Kenyan universities. This is because these selected factors are foundational and form a basis upon which the other advanced factors influencing career adaptability are anchored. For instance, another factor is perceived social support which stems out of the family, guardian, school attended and friends. This implies that this study will cover this factor indirectly.

1.3 Statement of the Problem

The world of work as well as the nature of teaching in technical training institutions has changed over the years. There have been (seemingly opinionated) complaints from management of various Kenyan technical institutions that technology education graduates were less versatile and thus rigid in embracing the diverse technologies at work. This may point towards inability to cope well with changes at places of work. This, therefore, points to possible issues in career adaptability of the graduates pursuing technology education. These complaints have been taken a step ahead, being picked by some employers as an allegation against the graduates. To the point of great concern, these complaints have been capitalized upon, causing technology education graduates to be less competitive during deployment of trainers in TVET institutions. Although there is little documentation to clearly reveal this phenomenon, a random survey carried out by the

researcher in some TVET institutes in Kenya brought forth information which is summarized in the table 1.1.

Table 1.1: Cases of Public Service Commission Deployment of Trainers in some Kenyan TVET institutions from 2018 to 2022

Institution	Department	Number Employed From 2019- 2022	Number of those trained in:	
Sang'alo TTI	Electrical & Electronics	5	TED	1
			Engineering	4
			Other Courses	0
Rift Valley TTI	Building & Civil Eng.	4	TED	1
			Engineering	3
			Other Courses	0
Matili TTI	Electrical & Electronics	3	TED	0
			Engineering	3
			Other Courses	0
Ravine TTI	Mechanical & Engineering	3	TED	0
			Engineering	3
			Other Courses	0
Coast National Polytechnic	Mechanical & Automotive	4	TED	0
			Engineering	2
			Other Courses	2
Keroka TTI	Building & Civil Eng.	4	TED	1
			Engineering	1
			Other Courses	2
	Electrical & Electronics	6	TED	0
			Engineering	6
			Other Courses	0
	ICT	2	TED	0
			Engineering	0
			Other Courses	2

Source: HODs & Trainers from TVCs & Polytechnics

These statistics substantiate the occurrence of the phenomenon of preference of other professionals such as specialists in land survey, quantity survey, mechatronics among others to TED graduates in TVET institutions in Kenya. There is need to conduct investigation on career adaptability of technology education graduates as one of the possible causes of the alleged less competency and inability to cope diverse technologies at work.

1.4 Purpose of the Study

This study investigated the career adaptability of Technology Education graduates as one of the possible causes of the perceived to be less competent and unable to embrace diverse technologies at work.

1.5 Objectives of the Study

The main objective of this study was to investigate the influence of selected correlates on career adaptability of Technology Education graduates in Kenya. The specific objectives that this research addressed were as follows:

- i. To investigate the effect of non-academic factors on career adaptability of technology education graduates in Kenya.
- ii. To determine the influence of academic factors on career adaptability of technology education graduates in Kenya.
- iii. To find out the influence of quality of training on career adaptability of technology education graduates in Kenya.

1.6 Research Questions

This research was intended to provide answers to the following research questions:

- i) What influence does non-academic factors have on career adaptability of technology education graduates in Kenya?
- ii) How do academic factors affect career adaptability of technology education graduates in Kenya?
- iii) To what extent does the quality of training affect career adaptability of N technology education graduates in Kenya?

1.7 Justification of the Study

The outcry of unemployment among graduates in Kenya is increasing progressively (HDI, 2017, CUE, 2018). However, the Kenyan corporate society continues to inform that there are numerous job opportunities for graduates and school leavers. Managers and employers inform that what is lacking is the adaptable workforce that can be entrusted with diverse career roles (Ikinya, 2019). As technology education graduates feel that they are being invaded by engineers in their professional field, the question remains: are technology education graduates flexible and seasoned enough to be undoubtedly entrusted with diverse roles at places of work? This question also goes to other professionals who are suffering from also facing stiff competition from other professionals in fields related to their specialization when it comes to matters of being considered for deployment in their areas of study which are also being eyed by professionals from related fields. It was, therefore, necessary to conduct a study on career adaptability among Technology Education graduates in Kenya.

1.8 Significance of the Study

This study's findings creates awareness among technology education graduates in Kenya on how well they can cope with the changing nature of their future career. This will make the graduates to be aware of their levels of career adaptability which will help them to adjust themselves for better.

This study's findings and recommendations will also help to inform if, when considered in the perspective of their career adaptability, Technology Education graduates are less adaptable as the allegations put it. If the perception was refuted by the research findings, the (erroneously) tainted reputation of the course will be resuscitated. Thus, marketability of the course in the corporate world will be enhanced.

Finally, the findings of this study carry insightful content that debrief the dons in Kenyan universities offering Technology Education course on how adaptable their technology education graduates are. The result, thence, is meant to help the university to possibly reform the curriculum and provide learning experiences that incorporate aspects of nurturing adaptability. Through this, quality education and training (the goal of university education) will be achieved.

1.9 Assumptions of the Study

This study presumed that all the respondents' responses are true and reflect what can be used to examine their career adaptability. In addition, career adaptability was assumed to be the sum total of the mutual effects of the correlates that were used in this study. Also, effect of linguistic influence was assumed to be negligible. It was assumed that the effect of linguistic influence is negligible despite diverse culture and local languages, English is

the official language that every technology education graduate is conversant with, and therefore linguistic influence has been greatly reduced.

1.10 Scope of the Study

This study only focused on how career adaptability of Kenyan Technology Education graduates was influenced by the quality of training, non-academic factors and academic factors (described in operational definition of terms)

1.11 Limitation of the Study

Respondents in this research study were working in various institutions around the country. Many of them had tight schedules. This almost impaired the response rate. To overcome this challenge, researcher diversified the data collection process whereby the questionnaire was administered both physically and through use of mail. The questionnaires filled electronically were submitted through mail while those administered physically were collected. . This greatly enhanced the response rate.

1.12 Theoretical Framework

A theoretical framework is a collection of interrelated and interconnected concepts that form the underpinning constructs which are utilized in directing research (LeCompte & Preissle, 1993). This study was guided by Piaget's constructivist theory. This theory states that individuals are acquainted with knowledge and understanding by perceiving it in an active way within the direct process of knowledge transmission. The theory further suggests that individuals construct new understandings of knowledge through social discourse and experience (Nola & Robert, 2006). This theory also acknowledges the role of social and informational environment in offering temporary support (scaffolds) to

individuals which shapes the future of individuals once they internalize the reality of life. Career adaptability is a multifaceted skill that develops continuously as a result of an individual interacting with various factors as humans are naturally social beings who adjust according to what they encounter at various phases of life.

1.13 Conceptual Framework

Variables are measurable characteristics which assume different values among respondents of a research study (Mugenda & Mugenda, 2009). This research involves dependent variable, independent variables and intervening variables. In this research, career adaptability is the dependent variable. Non-academic factors (family background, personality and gender), academic factors (year of graduation, area of specialty, category of high school attended and entry behavior) and quality of training (training facilities, theoretical and practical skills in TED curriculum & time spent on training) are the independent variables on which career adaptability depends. Intervening variables in this research include cultural influence and attitude of Kenyan technology education graduates.

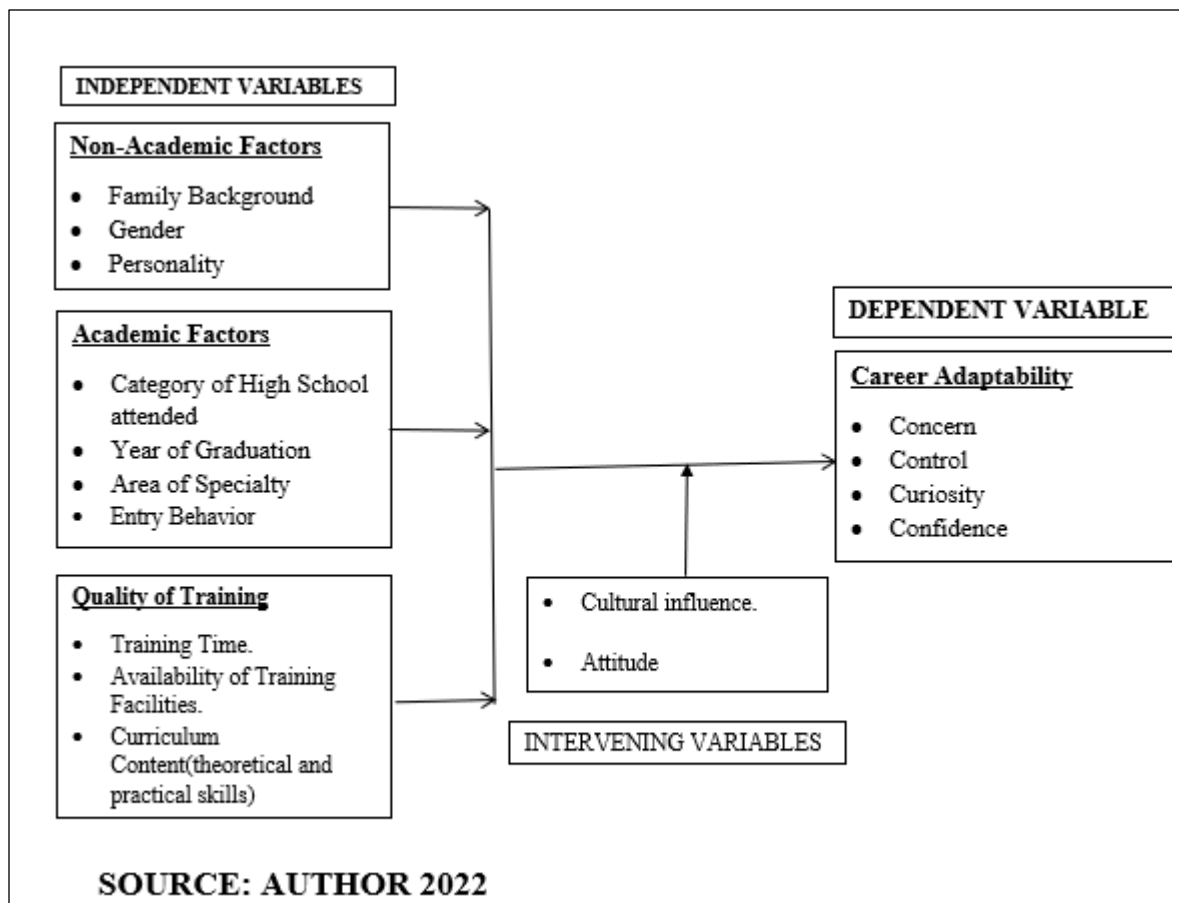


Fig.1.1: Conceptual Framework Model

Career adaptability is a multifaceted psychosocial skill consisting of concern, control, curiosity and confidence (Savickas & Porfeli, 2012). In this study, career adaptability has a strong link with one's personality. This comes because of existent reality that average trait levels of individuals contribute to their adaptability (Bacanli & Sarsikoglu, 2021). Personality of a person is basically defined by their average trait level (Holzman, 2023). Moreover, according to Havenga (2011) graduates with good perceived social support from family are more optimistic and therefore are better adapted to career. In addition, Afridi *et al* (2015) found out that a family's socio-economic status is key in shaping career adaptability. Also, in another research, it was found out that optimism has a

positive and direct association with graduates' career adaptability (Nurten, 2017). This could imply that family background has a significant impact on one's career adaptability.

Van Viaven, *et al* (2012) found out that there was no meaningful relationship between general mental ability and career adaptability. This may imply that entry behavior (which is a measure of general mental ability) does not significantly influence career adaptability. Besides, research done in Turkey revealed that regardless of the high school type attended, there was similar interaction among variables used in exploring contributing factors of career adaptability (Nurten, 2017). This could mean that the level or type of secondary school attended has insignificant relationship with career adaptability.

Van Viaven, *et al* (2012) showed that employees' exposure to challenging work significantly influence their career adaptability. As graduates expose to content over years of study in their various areas of specialization, they directly or indirectly face challenging situations which are likely to shape their career adaptability. Further, it was found out that an extremely slight disparity exists in the means of the dimensions of career adaptability among males and females, with women being more adaptable than their male counterparts.

1.14 Operational Definition of Terms

Adaptability - the quality of being able to learn new skills and behavior in response to changing circumstances.

Career- Refers to the general course of action or conduct in some special undertaking (particularly a profession for which one is trained).

Career adaptability - ability to cope with changing work, working conditions and tasks by engaging in continued self-learning, exploration and regulating career direction.

Concern- Refers to the quality of being conscious about future and coming up with plans for forthcoming changes, with a hopeful attitude with respect to the future.

Confidence- is the ability to engage obstacles and problems tactfully so as to appear successful in pursuing success.

Control- Refers to individual's ability to take charge and stand in a position to construct and set up own career.

Correlate (Noun) - Implies a factor or set of factors that have been found or is perceived to have either positive or negative influence on career adaptability of TED graduate trainers.

Curiosity-Refers to the ability to discover, explore and access information related to career development.

Job- Refers to some undertaking for which one is paid. It is one of the constituents of career as career also includes experiences and training which, together with the job, help one to advance in responsibility.

Profile factors is a set of four factors namely concern, control, curiosity, and confidence, which influence career adaptability.

Academic factors- These are determinants of career adaptability that are caused by issues related to one's educational life. These include the category of secondary school attended, entry behavior and area of specialty.

Non-academic factors- These are factors that are not related to educational qualifications but are considered as determinants of career adaptability in this study. These include family background, personality and gender.

Quality of training - Covers such factors as availability of training facilities, theoretical and practical skills in TED curriculum and time spent on training.

Selected correlates - A set of factors that this study considered in investigating career adaptability of TED graduate trainers. These are academic factors, non-academic factors and quality of training.

TED trainer - Is a trainer in Kenyan TVET institution who pursued bachelor's degree in Technology Education in such areas of specialty as building and construction, computer studies, electrical and electronics technology, mechanical technology and power mechanics technology.

1.15 Summary

Career adaptability is the potential of an individual to cope with changes in career roles at work, while maintaining balance. Technology education graduates in Kenya are currently facing challenges of being alleged to have less competency in performing diverse roles at their workplaces. The purpose of the study was to investigate career adaptability of TED graduates from Kenyan universities as one of the possible causes of the alleged less versatility and rigidity in embracing diverse technologies at work. Though there are several correlates of career adaptability, this study restricted itself on using quality of training, “non-academic” and “academic factors” in investigating career adaptability of TED graduates from Kenyan universities. This study is timely and relevant to present context of Kenyan job market because there is increased interaction among professional fields (that is causing some conflicts) as well as increased joblessness. These two issues are thought to be associated with insufficient adaptability among the affected job seekers. The findings from this study are meant to create awareness among graduates, help to establish facts against allegations made by some employers about TED graduates and also inform university dons on possible curriculum reforms in TED. Respondents of this study were scattered all over the country and were engaged in various administrative and training roles, something that affected their availability to respond to the questionnaire. The study was guided by Piaget’s constructivist theory.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains systematically identified analyzed and presented information about existing scholarly work related to the problem under study. The chapter covers general literature and specific literature on career adaptability.

2.2 General Literature

This discusses general issues that relate to career adaptability.

2.2.1 Career Construction Theory

Career Construction Theory (CCT) is a composition of life themes, vocational personality and career adaptability (Savickas, 2005). Life themes show individual's vocational preferences as they tell the kind of people they want to become in future. Vocational personality encompasses one's career-related abilities, values, needs and interests and personal traits that typify self-concept. Career adaptability, in this case, consists of attitudes, competencies and behaviors that enable individuals to suit to diverse occupations.

CCT plays a crucial role in responding to essentials of the contemporary world of work (Havenga, 2012). These essentials of contemporary corporate world are simply features that make an individual adaptive to work in the current society. In addition, CCT incorporates career adaptability in explaining what need to be put in place in ensuring that one survives and maintains balance in the contemporary world of work. CCT recognizes the need for cognitive perceptions and interpersonal relations in shaping one's

ability to develop and manage subjective career path. Cognitive perceptions in this study was reflected by entry behavior, a measure that determines the level of knowledge, skills and attitudes that usually determine the way in which an individual perceive various phenomena. Family and school form the most important social institutions in which almost all interpersonal relations are nurtured and enhanced. Career construction uses best concepts of its content and process theories to make decisions and advise on today's world of work (Hartung, 2010a), as well as efforts that need to be put in place to suit the current world of work. By help of career construction, individuals are enabled to objectively suit themselves to job opportunities and subjectively make effective use of work to instill meaning in their lives (Hartung, 2009). This, in itself, depicts career adaptability.

2.2.2 Life Design Counseling

Life Design Counseling (LDC) is a career counseling approach which offers support to clients in constructing narrative of antecedent, present and future through provision of a sense of coherence and continuity. In addition, confronting developmental tasks (such as the urge to pursue educational and vocational pursuits) motivate establishment of a universal and consistent life story. This study borrows this as it tries to trace the career adaptability of participants by using factors that trace the former life, present and this was utilized to predict the future of the participants in their world of work. This study traces the family background, gender, former high school attended, entry behavior and the personality of the person. These factors depict the typical antecedent determinants. These, then, are followed by year of graduation, area of specialty which are the more recent

features. The two (former and more recent factors) were utilized to project the future and inform the key findings and recommendations of the study (Hartung, 2009).

LDC also involves integrating career plans into individual's psychological dynamics so as to form part of dimensions in which individual's future is projected. The respondents in this study have already specialized in various specialties and therefore each individual's future was projected specifically in regard to their cognitive abilities (determined by entry behavior) being coupled with their different career paths (which are determined by their areas of specialization). These different cognitive abilities and different areas of specialization depict the existing dynamics that make each respondent unique. LDC further reveals that cognitive abilities, as one of internal sources within life period, eases awareness of casual links that may exist between biographic events and self-development, individual's ability to develop interconnected and universally coherent life narratives, and acquisition of normative aspects of life. This justifies why it is very important to factor in entry behavior in this research that is focused on career adaptability as the study helps to investigate an individual's ability to remain relevant throughout career life. This is only achievable if the individual acquires appropriate normative aspects that can help to navigate through several transitions at work, while maintaining balance.

LDC, just as CCT, embraces social constructivism in their epistemological framework. In effort to develop a coherent life story, LDC uses a Career Construction Interview (CCI). This interview is conducted in a tranquil, serene and secure atmosphere coupled with reasonable help and support to enable critical analysis of subjective experience. This leads to construction of new meanings about self and construction of new career

interventions (Savickas, 2015). This postulation from LDC is essential in informing how data collection was done in this study. As opposed to LDC which uses a semi-structured interview that is done carefully so as establish new meanings of self and corresponding career interventions, this study used semi-structured questionnaire. However, the conditions of administering the research instrument was similar and the questionnaire was structured to observe coherence so that a consistent life story can be established (and used to inform on possible career interventions in regard to the career adaptability of the participants, and consequently the entire population).

LDC is mainly intended to help individuals to build professional lives in the contemporary and ever-changing society. Career adaptability, CCT and LDC are intertwined entities that utilize similar and related factors (in informing about self and recommending on possible career interventions), and employ similar mechanisms in data gathering. LDC is also based on constructivist theories and therefore share similar epistemological framework with career adaptability.

2.2.3 Changing World of Work

It stands beyond doubt that change is inevitable. Individuals should be ready to undergo change and cope with the changes (Havenga, 2011). The world of work has adopted frequent changes as an enduring feature (Griffin & Hesketh, 2003). Economic and political developments, globalization, downsizing and technological advances are key causes of these changes. The traditional concept of “Job for Life” is gradually dying as postmodern organization structures are embracing features that offer less job security and need one person to conduct multiple roles (Havenga, 2011). This implies that individuals should prepare themselves to encounter challenges through embracing flexibility to

execute career tasks, career transitions and approaching career traumas rightfully (Savickas, 2013). The uncertain nature of work around the globe demands resilient individuals who are optimistic, have substantial life energy, are welcoming to new experiences and own inherent control center. This phenomenon informs that career adaptability is the endeavor that people need to embrace at all times as changes at workplaces will remain to be an enduring feature. Career adaptability; therefore, need not to be considered as a seasonal mechanism that people ought to embrace in rare occurrences in an individual's work life. Rather, it is imperative that all people are aware of, and are timely prepared to engage the world of work that is characterized by continuous upgrade and revolutions.

2.2.4 Prerequisites for Career Survival in the 21st Century

In this 21st century, there is need for individuals to properly understand how to mold their own career paths which will enable them to live a fulfilling life (Nurten, 2017). Individuals establish their subjective career which coincides with meaning and direction of their varied lives across their lifespan (Savickas, 2013). This implies that career is not rigid (subjective) across one's lifespan. However, individuals need to be adaptable so as to ensure that they carry out their varying career roles effectively (throughout their work life). Survival and resilience in the current world of career is not only interrelated with the development of self, but also interaction of self with the world (Angel, 2012). This means that survivors in the world of work in this century will be determined by their ability to swiftly adjust to emerging innovations in their areas of work, besides their individual qualifications.

People should evaluate themselves in terms of their interests, personalities and potentials. There is a great need to properly understand the existing work requirements, opportunities, merits and demerits of the current career situations and to align with existing facts. This calls for a person being updated always with trends at work and transitioning smoothly so as to survive throughout their productive age. This is purely a demand that calls for career adaptability among those working as well as those preparing to join the world of work, especially in this century. Career development must be seen as a lifelong skill that ought to be cultivated at all stages of life. Advancing oneself progressively so as to remain relevant throughout work life is simply working on career adaptability of oneself. The skill (career adaptability) is instrumental in overcoming 21st century requirements of work and threats that one can face in work life (Nurten & Oya, 2017).

2.2.5 Career Adapt-Abilities Scale

Career Adapt-Abilities Scale (CAAS) is an internationally standardized scale that was advanced to evaluate the level of career adaptability of an individual. CAAS contains four subscales, each having six items to measure concern, control, curiosity and confidence (Savickas & Porfeli, 2012). The scale has a five-point Likert scale ranging from 1 (Not Strong) to 5 (Strongest). The scale has been proven to possess great reliability and validity though it is affected by variation in culture and language of participants.

Besides, there is Career Adapt-Abilities Scale Short Form (CAAS-SF). This is an alternative scale used to measure career adaptability. This tool, as opposed to CAAS, has four subscales with three items which determine an individual's career adaptability. The

four sub-scales are the four profiles of career adaptability which include concern, control, curiosity and confidence. CAAS-SF is quite simpler and helps a researcher to use a short time to collect data on career adaptability of participants. The scale has also been found effective in determining career adaptability (Maggiori, Rossier & Savickas, 2017). In both scales, respondents are required to score the level to which they act in cases that involve dimensions of career adaptability.

Once respondents score the levels of their strengths in acting on issues related to concern, control, curiosity and confidence, the means of each of the dimensions of career adaptability are generated for the groups and this helps in informing on how well the respondents are in terms of their career adaptability.

2.2.6 Career-Related Issues: Kenyan Perspective

There is currently high unemployment among Kenyan youth. According to Farah & Ali (2018), for every ten youths with requisite qualifications in Kenya, four are jobless. This unemployment is seen as transitional phenomenon that pervades almost all youth after they exit education system. Lack of sufficient skills among these novice job seekers is perceived to be one of major causes of their unemployment. Employers argue that Kenyans exit school with little suitable skills for their respective workplaces (Hunt, 2017). For instance, most of high school graduates in Kenya lack minimum proficiency in speaking and reading English (World Bank, 2016). World Bank (2016) further posits that opportunities for gaining skills through post-school training are limited in the country. Others claim that mismatch between skills taught and skills demanded makes youth population underprepared for job market (DFID, 2017). Despite these observations, employers still reveal that Technical and Vocational Education and Training (TVET) is

important in nurturing young people for the job market. They, therefore, recommend that improvements need to be made to meet the existing gaps (Ngure, 2015). It is shocking that TVET trainers who are the technology education graduate are also perceived as less competent people in executing duties at workplaces (Ikinya, 2019). These people are exposed to various technologies and are expected to be flexible and adaptive to the technological trends in their places of work. It is unclear if lack of skills and/or poor career adaptability is the cause of perceived under-performance technology education graduates in handling diverse roles at their respective places of work.

2.3 Specific Literature

This section covers review of literature that brings forth the relationship between career adaptability and the selected correlates in this study. The section discusses literature that express direct (or implied) relationship between career adaptability and personality, family background, gender, school type, year of graduation, area of specialty, entry behavior and quality of training.

2.3.1 Career Adaptability Research

The research studies conducted on career adaptability cut across all areas and professions. For instance, Wiwik (2018) conducted research on factors that influence the readiness and success of career adaptability in educational setting through systematic review of literature. Also, while seeking to find groupings of cadets who share common pattern of parental support, adversity quotient and school climate, Wiwik & Seger (2017) conducted research to explore the set of factors influencing career adaptability by way of a cluster analysis. Besides, in effort to supply a critical insight into the new graduate nurse

transition, Walden (2020) conducted a cross-sectional descriptive correlational study to explore the relationships among career intentions, work engagement and career adaptability of new graduate nurses.

Elsewhere, Nurten (2017) conducted research on direct and indirect relationships between perceived social support, optimism, general self-efficacy, and career adaptability among high school students in Ankara (Turkey's capital). More recently, following economic downward pressure and pessimistic employment situation in post-pandemic era in China, Pang, *et al* (2021) conducted research to examine relationship between college graduates' resilience and career decision-making difficulties. The element of career adaptability played a mediating role in the research.

Career Adaptability has become a very crucial tool in higher education today (Pang *et al*, 2021; Wiwik & Seger, 2017). With the rapid changes in technology, it is of essence that adaptive measures are inculcated in university students to guarantee resilience, competitiveness, and relevance in their future career. Personal career adaptability is more important among all graduates as the society has been revolutionized by the changes in technology (Chen, *et al*, 2020). A study done in the United States of America (USA) showed that on average, ten career changes take place for individuals up to an age of 36 (Savickas *et al*, 2009). Moreover, Brimrose (2010) suggests that there is a general trend of the nature of job changing. This shows that changes can take place to overhaul some careers and bring forth new careers or the career itself can undergo modifications depending on modern technologies or governmental and non- government institutions' change in demands.

Career adaptability is a vital part of life design and satisfaction (Zhou & Lin, 2016), an essential in promoting students' sustainable development education (Chen *et al*, 2020), and a prerequisite for managing transitions successfully throughout one's lifetime (Brimrose, 2010). Career adaptability is instrumental in enhancing employability, reducing anxiety as well as causing individuals to cope with transitions properly and smoothly (Ito & Brotheridge, 2005). In this era where there are a lot of dynamics in the world of work and increased possibilities of landing on different job (from the one trained in), career adaptability is quite necessary.

2.3.2 Career Adaptability and Personality

Several studies have reported relationships between career adaptability and personality. For instance, Teixeira (2012) finds out that extroversion, agreeableness, openness and conscientiousness are positively related with career adaptability while neuroticism has a negative relationship with career adaptability. Similar findings are reported by Van Viaven,*et al* (2012). These researchers further report that no meaningful relationship exist between career adaptability and general mental ability. Other studies which have been conducted on the same subject are those based on graduates (Nauta & Derckx, 2007; Fan & Yao, 2012; *et al*, 2015) and those done on workers (Zacher, 2014). Although these studies conform to similar findings, they do not investigate if there exist variation in constructs of career adaptability among individuals of the same personality traits . Moreover, the research studies were done in China, Brazil and Australia. Zacher (2014) posits that these findings are not yet conclusive as these relationships are likely to vary depending on the cultural characteristics of the participants.

2.3.3 Career Adaptability and Family Background

Even though several studies have been done to examine the value of family background on individual development, there is insufficient information to explain how family background impacts future achievement (Wiwik & Seger, 2017) and by extension, career adaptability. Apart from dictating the kind of education someone takes, family background is instrumental in giving an individual required social support. High social support from family, friends, school and school environment is a strong predictor in exploring career adaptability of individuals (Hirschi, 2009; Tian & Fan, 2014; Han & Rojewski, 2015).

Level of parental support and parental intervention affects career exploration which, in turn, predicts career adaptability (Wiwik *et al*, 2017). Parents' involvement in career development and their provision of supportive resources motivate their children (graduates) to initiate exploratory behavior. If parents are unable to sufficiently supply supportive resources, graduates become less motivated and hence their exploratory behavior is restrained. Provision of supportive services depends on parents' income. Few research studies have been done to show whether a relationship exist between family background in terms of economic status and career adaptability.

2.3.4 Career Adaptability and Gender

There are numerous research studies that report relationship between demographic characteristics such as age and gender, and career adaptability. According to research done on Swiss students, age and gender does not affect career adaptability (Hirschi, 2009). Maggiori, Johnston, Krings, Massoudi and Rossier (2013) also strongly posit that absolutely no meaningful relationship between gender disparities and career adaptability.

However, in similar research done among Korean workers, male graduates were found to have higher development of career adaptability than their female counterparts. Han and Rojewski (2015) support this finding by arguing that men have greater family responsibilities. Some research studies also report that women have higher career adaptability (Ntarangwe, Asatsa & Ndung'u, 2021) and are more purposeful in organizing for their career than men (Ferreira, 2012). Most studies have been based on elderly and therefore those on youths are still few. It is also good to note that research on relationship between gender and career adaptability is still inconclusive. Gender alone, therefore, cannot be relied on when exploring career adaptability of individuals. Other factors have to be brought on board to properly account for variation of career adaptability among individuals.

2.3.5 Career Adaptability and School Type

Frontier studies on relationship between career adaptability and kind of school attended by a student report varied findings. According to Nurten (2017), career adaptability dimensions interact similarly irrespective of the type of high school a student attends or attended. Nurten's research was based on a sample of Turkish students in private and public schools. The findings, Nurten reports, would have been affected by the education system in Turkey. The students sit for a common university entrance examination and make career choices based on their scores. This could have caused similar interactions among the dimensions of career adaptability. It is unclear if this trend (as Nurten explains) is consistent in different educational contexts. In Kenya, there are more categories of schools as public schools in this context are classified as sub-county, county, extra-county and national schools. These categories of public schools and private

high schools have different environments and receive different support initiatives from the government. This would possibly impact how the schools nurture career adaptability of their students.

Ntarangwe *et al* (2021) also reported on relatively similar study. In their research that based on career adaptability of academic staff in universities, there was a slight difference in the mean score of career adaptability of academic staff in private and public universities. The study by Ntarangwe *et al* revealed that academic staff in private universities were more curious while those in private universities have a higher level of control. These research findings cannot be generalized so as to include graduates from various school types as the participants in the research are different.

2.3.6 Career Adaptability and Related Factors

There is scanty literature that account for the relationship between professions or areas of specialty and career adaptability. Yu *et al* (2019), while validating CAAS-SF China, compared career adaptability of college students, civil servants and enterprise employees. He reported that college graduates posted lowest values of career adaptability while enterprise employees recorded highest values. Yu explained that college graduates had unclear expectation for the future and had insufficient knowledge on future career options. This, Yu concludes, negatively affected their career adaptability. It is unclear if there is inter-faculty variation in career adaptability among graduates. In this study, Technology Education was categorized into five areas of specialty to enable comparing and contrasting the levels of career adaptability among graduates of various areas of specialty. A study done by Nurten (2017) would have served the purpose only if a follow-up survey would have been done to compare career adaptabilities of graduates who have

already specialized in various career choices. Elsewhere, Pang *et al* (2021), while investigating resilience and career decision-making difficulties among Chinese college students, does not show if career adaptability varies among students pursuing different professions. If this would have been done, a reasonable speculation of variation of career adaptability among graduates of various specialties would have been done.

Research studies done on graduates do not clearly elaborate how career adaptability varies across years of study. However, Kim & Kim (2022) report that old workers have higher level of career adaptability than younger workers. With this finding at hand, we can only speculate a possible trend in terms of variation of career adaptability as the graduates operate in their diverse careers. Moreover, Ntarangwe *et al* (2021) reported that generally, workers with higher years of experience are more adaptable than those with less years of experience. This can also be used to give a reasonable guess on variation of career adaptability among TED graduates who have practiced their career roles for different number of years.

Research studies have also shown that there is no significant relationship between career adaptability and general mental ability (van Viaven, *et al*, 2012). This study was based in Netherlands. It is unclear if this finding could be similar across the globe. Inherent mental ability is very crucial in judging how people cope with or adjust to situations. There is a great need to conduct further investigation on effect of mental ability on career adaptability. The general mental ability in this case was considered in terms of entry behavior.

2.4 Gaps in Literature

Several studies have been done on career adaptability and how it interacts with its correlates. Some of the correlates are gender, years of experience, career success (Zacher, 2014; Haengli & Hirschi, 2020), work engagement (Walden, 2020), personality, perceived social support, optimism among others. What needs to be done is to add literature on how family background (particularly socio-economic status) affect career adaptability. There are also no findings on impact of the high school educational contexts offered by Kenyan educational system impact on career adaptability. The effect of gender on career adaptability is also still inconclusive. Lastly, most studies on career studies have not involved comparing the level of career adaptability among individuals in different areas of specialty. This study, therefore, investigated career adaptability of TED graduates using the correlates identified to add more information on what has been done as well as providing new findings for the places where there has been insufficient information in explaining how various factors influence career adaptability.

2.5 Summary

Career adaptability is interconnected with CCT and LDC. Studies on career adaptability, therefore, borrow epistemological framework, mechanisms of inquiry and factors that are useful to be incorporated in the investigation. The world of work is ever-changing and therefore adaptable individuals are required. In this 21st century, the need for persons to understand career dynamics and embrace versatility is significant. Survival in the current world of work is determined by their ability to swiftly adjust to emerging innovations in their areas of work. In Kenya, employers are complaining that graduates lack suitable

skills at workplaces. This element of insufficient suitability of graduates could be due to lower career adaptability.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter entails the type of inquiry used , plan and procedures that were used in the study. It covers the paradigm, design, methodology and study area of the research. In addition, the chapter covers the study population and sample, sampling procedures, research instruments, validity and reliability of research instruments, data collection procedures, data analysis techniques, and legal and ethical considerations.

3.2 Research Paradigm

Research paradigm, according to Nieuwenhuis (2010), is a set of organizing principles or beliefs by which a study's reality is interpreted. A paradigm is made up of researcher's ontological (nature of reality), epistemological (source of knowledge about reality), methodological and theoretical perspective. This study used objective reality to explain career adaptability. Thus, the study was guided by post positivist paradigm.

3.3 Research Design

A research design outlines the specific details of inquiry. Denzin & Lincoln (2021) refer to this as "strategies of inquiry". A study's general operational framework clearly describes the kind of data to be gathered from specified sources and applicable procedures to be employed. A well-developed research design is an essential requirement in arriving at valid findings, comparisons and conclusions (Kumar, 2011). This study used a quantitative design and specifically survey design to investigate career adaptability of technology education graduates from Kenyan universities. This was chosen because of

the applicable paradigm. The paradigm demands collection of substantial volumes of quantitative data from many people in a short period, usually in a form that can be easily analyzed. A survey design, according to Creswell (2009), is applicable where there is need to provide a quantitative or numeric description of a population's attitudes, opinions and trends by carefully studying a sample of the target population.

This method is best suited for acquiring descriptive data from a quantitative perspective. The quantitative approach is a scientific method based on the positivist worldview. It focuses on gathering new data from a broad population following the research problem and analyzing it.

Surveys are popular because they allow for the collecting of a large amount of data from a sizeable population at a low cost. Data is frequently gathered by administering a questionnaire to a sample, making the data standardized and easy to compare. Therefore, this study adopted a survey research design because data was obtained from a questionnaire filled by a sample of technology education graduates from Kenyan universities. Findings from the representative group were used to generalize career adaptability of the Technology Education graduates.

3.4 Study Area

It is of great essence for a researcher to identify the context within which a study was conducted (Leedy & Ormrod, 2005). This study was based in Kenya. This is because majority of TED graduates from various Kenyan universities are spread across various TVET institutions within the country borders. Some of the students are serving in managerial positions while others were trainers in various TVET institutions. The

numerous graduates come from various places in Kenya and have schooled in various high schools which are widely varied in terms of available resources.

3.5 Target Population

This study targeted all Technology Education graduates (degree holders) from the various universities offering Technology Education course(s) in Kenya and departmental heads (who manage majority of the graduates at work places). This is due to the fact that there are several universities offering Technology Education and ,therefore, graduates from all these universities were crucial informants in this study. In addition, the departmental heads were also essential in providing important information on career adaptability of the TED graduates.

The universities that offer technology education courses in Kenya include Dedan Kimathi University of Technology (DeKUT), Meru University of Science and Technology (MUST), Masinde Muliro University of Science and Technology (MMUST), Moi University (MU), Murang'a University of Technology (MUT) and University of Eldoret (UoE). From the available statistics, a total of about 4494 TED graduates have been produced by these universities (See the breakdown in Table 3.1). Due to the fact that most TED graduates work in Technical and Vocational Colleges (TVCs) and National Polytechnics in Kenya, the departmental heads from these institutions formed the managers who informed on career adaptability of the graduates. As provided by Technical and Vocational Education and Training Authority (TVETA) in 2023, Kenya has 131 TVCs and 12 National Polytechnics.

3.6 Sampling Techniques and Sample Size

Sampling techniques are strategies that are employed to select a group of the entire population that can serve as representative of the entire population. This study employed snowball sampling technique to obtain the TED graduates from Kenyan universities and purposive sampling to select the departmental heads of TVCs and National Polytechnics. This is because of the characteristics of the population under study. To obtain the TED graduates from aforementioned universities, the researcher identified few graduates from each of the universities who subsequently identified their colleagues until the required number of respondents was reached. For the departmental heads, the researcher carried out purposive selection of departmental heads from TVCs and National Polytechnics to the required number. The required samples are as summarized in Table 1 and Table 2.

Mugenda (2009) posits that for bigger target groups, it is good to extract a sample of the population to form the participants. A sample of between 10% and 30%, according is enough (Mugenda, 2009). This study involved many participants and therefore use of a sample of the target population was necessary. The following is the breakdown of the sampling.

Table 3.1: Targeted Sample of TED Graduates Trained in Various Kenya**Universities**

S/No.	Approximate Population from Universities		Samples	
	University	TED graduate trainers from the universities	Number	Percentage(%)
1.	DeKUT	209	52	25.00
2.	MMUST	5	5	100
3.	MU	480	120	25.00
4.	MUST	200	50	25.00
5.	MUT	100	25	25.00
6.	UOE	3500	875	25.00
Total		4494	1127	25.08

Table 3.2: Sample of Departmental Heads

S/No.	Institution Type	Total No.	Sample	Sample (%)
1.	TVCs	131	26	20
2.	National Polytechnics	12	4	30
Totals.		143	30	20.97

3.7 Data Collection Instruments

This study used the questionnaire to collect data from the respondents. This is because the information to be collected is sensitive and personal and therefore freedom of expression of individual's views was enhanced when respondents were subjected to a questionnaire where they would write their views while hiding their identities.

The questionnaire for the TED graduates was a Career Adapt-Abilities- Scale Short Form (CAAS-SF). This form was adapted from the work done by Maggiori, Rossier & Savickas (2017). This form is a short form of Career Adapt-Abilities Scale (CAAS) and has been found valid and as reliable as CAAS. The form was found to be preferable because respondents were on busy schedules and therefore a brief and precise way of collecting data was a better choice. Moreover, a lengthy questionnaire is likely to discourage the respondents and make the retrieval of the filled questionnaire to be fewer as many may be unwillingly to participate in filling the questionnaire.

The CAAS-SF form was accompanied with questions that probed the respondents to give information and views on academic factors, non-academic factors and quality of training. The questionnaire, thus, collected information on the attitudes, competencies and beliefs regarding concern about the future, control of self to suit the existing niche, curiosity about future possibilities in terms of career and confidence in pursuing ambitions. In addition, the questionnaire collected data on category of high school attended, area of specialty, year of graduation, family background, personality, gender, and entry behavior. For personality, the researcher extracted identified common attributes associated with personality traits as identified by Robertson (2018) and used them to determine the

personality of TED graduates by probing them to select the set of attributes that best described their personality.

The purposively selected departmental heads, on the other hand, were engaged by use of another questionnaire that contained probing questions that helped them to air out their views on career adaptability of TED graduates in their respective institutions. The questionnaire was made up of both close-ended and open-ended questions as deemed necessary in regard to collecting required information.

3.8 Validity and Reliability of Research Instruments

3.8.1 Validity of Research Instruments

Validity is the extent to which an instrument measures the variable it claims to measure (Ghuri & Gronhaug, 2005). Before administering the questionnaire to the intended research participants, the researcher conducted a pilot study in which the rudimentary questionnaire was administered to a pilot group. To be specific, the researcher (having printed a few copies of the questionnaire) identified (through snowballing), engaged 30 TED graduates from Kenyan universities and requested them to fill the pilot questionnaire. Moreover, validity of the questionnaire for the HoDs was also done by engaging 10 Heads of Departments (HoDs) who were purposively identified. The sample used for piloting did not take part in actual research to avoid bias of the results.

The researcher, then, collected the filled questionnaire and examined if the responses matched with the initial intention of the study. In addition, the researcher sought expert judgment and advice from supervisors to ensure that content, construct and criterion-bound validity were properly considered in the whole process of design and development

of the questionnaire. The standardized questionnaire was used in data collection. In addition, the researcher sought expert judgment of the supervisors to ensure validity of the questionnaire for the two groups of respondents. From this exercise, the questionnaire was revised whereby the areas of ambiguity were refined and recommended changes (by supervisors) made. After this undertaking, the questionnaire was ready for use in the actual research.

3.8.2 Reliability of Research Instruments

Reliability is the degree to which measurements can be replicated when taken by various people under different circumstances, settings, and purportedly substituted devices for measuring the same item (Taherdoost, 2016). It refers to the consistency with which data gathering methods or analytical procedures yield coherent results.

In this study, the researcher ensured reliability by use of, test-retest technique. The researcher administered the questionnaire to the pilot group (30 TED graduates and 10 HoDs) and then re-administered it to the same respondents after three weeks. The researcher, then, analyzed the results in both test and retest cases and compared the results accordingly. The Pearson Product Moment correlation coefficient was, then, calculated (at $\alpha = 0.5$) using the StatGraphics Centurion XVI.I software. Table 3.3 shows the outcome.

Table 3.3: Correlation Results

	TEST 1	TEST 2
TEST 1		0.1939
		(4)
		0.8061
TEST 2	0.1939	
	(4)	
	0.8061	

This table shows Pearson Product Moment correlations between each pair of variables. The values were the computed means of the four elements of career adaptability: concern, control, curiosity and confidence. As obtained, the correlation coefficient at $\alpha=0.5$ is 0.8061. This implies that there is strong relationship between values obtained in the test-retest, an evidence of greater reliability of the results.

3.9 Administration of Research Instruments

The researcher identified 5 research assistants who were trainers who had pursued technology education in various institutions. The researcher contacted and inducted the research assistants on the purpose of the research. The research assistants, in turn, identified TED graduate trainers in their institutions and inducted them to the research. The researcher, then, shared the questionnaire to the research assistants who administered the questionnaire to the respondents. The researcher also scheduled visits to some of the groups of accessible population of the respondents, inducted them to the research and then administered the questionnaire to the TED graduate trainers who were found available. The respondents were allowed enough time to fill the questionnaire. Finally, the filled questionnaire from the respondents were retrieved from the respondents both

physically and electronically depending on the prevailing circumstances of proximity to the researcher.

3.10 Data Analysis and Presentation

To analyse the study findings, the researcher used StatGraphics Centurion XVI.I software to analyze the data. This is because the software contains a set of statistical processes that allow for the establishment of relationships between one or more independent variables, which can be continuous or discrete, and one or more dependent variables. The quantitative data collected in this study was analysed in terms of frequency, mean, and standard deviation. Correlation was essential in determining reliability of the collected data by the test-retest technique. The analyzed data was presented in form of tables and graphs.

3.11 Legal and Ethical Considerations

3.11.1 Legal Considerations

Before conducting a research study, it is of essence for a researcher to obtain required permission from associated authorities. Before conducting this proposed study, therefore, the researcher sought recommendation from the University of Eldoret to allow clearance by governing bodies (in charge of education and research). The recommendation was used to obtain the research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) before proceeding with the data collection. Before engaging with the respondents at their various workplaces, the researcher also obtained permission from the specific institutions' administration.

3.11.2 Ethical Considerations

In this study, the researcher only relied on respondents' consent in finding participants in the research study. The respondents were required to read the consent form and agree to participate in the study before filling the questionnaire for the research. Collection of data for this study involved use of voluntary participation. The results were presented anonymously, keeping participants' identities confidential (Hickley, 2005). Researcher ensured utmost privacy and confidentiality in documentation of the research findings.

3.12 Summary

This study on career adaptability of technology education graduates from Kenyan universities that was based on postpositivist worldview, was quantitative research that was specifically a survey in nature. This study that was based in Kenya targeted 1127 TED graduates from Kenyan universities who were scattered all over the country, serving in various capacities. The research employed snowball sampling to obtain a sample from the targeted population of TED graduates and also used purposive sampling to get samples of departmental heads. The questionnaires were administered through blended mechanisms of physical administration as well as electronic administration depending on the availability of the respondents. The research instrument collected data on entry behavior, year of graduation, category of secondary school attended, family background, gender and personality) as well as career adaptability. The entire process of data collection was conducted with utmost care to uphold the directives by the established legal and ethical standards.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter is designed and developed to clearly present the data collected, analysis of the data, interpret and discuss the findings of the conducted research. This study was meant to investigate career adaptability of Kenyan Technology Education graduates using selected correlates. The objectives of the research were; a) To investigate the effect of non-academic factors on career adaptability of Kenyan technology education graduates, b) To determine the influence of academic factors on career adaptability Kenyan technology education graduates, and c) To find out the influence of quality of training on career adaptability of Kenyan technology education graduates.

The chapter, therefore, covers response rate, respondent characteristics, findings, interpretations and discussions, which are sequentially arranged as per the above objectives, as well as the summary of the chapter.

4.2 Response Rate

The total number of Technology Education trainers who responded to the study was 814. These represented 72.23% of the estimated sample of 1127 respondents who were TED graduates from Kenyan Universities. This response rate, according to Mugenda and Mugenda (2003) is adequate. For departmental heads, the study involved 30 HoDs (26 from Technical Training Institutes and 4 from National Polytechnics). This is 100% of the intended sample. HoDs were found more useful to the study and not principals as it

had been intended before because from piloting, it was found that principals were less informed on performance of the Technology Education graduates as they did not interact with them closely as HoDs. Heads of Department, thus were the right respondents. The heads of department were purposively selected from departments that had trainers who were TED graduates.

4.3 Respondent Characteristics

This section presents the description of the respondents that were involved in filling the research questionnaire.

4.3.1 General Characteristics of Trainers who were Technology Education Graduates

This part delves into bringing forth detailed attributes of TED graduates. Generally, all the graduates were engaged in professional activities that were relevant to their training. These were specifically trainers working in TVET institutions. 127 (15.6%) of the respondents had changed their jobs and that was from industry to training while 687 (84.4%) had not changed jobs.

4.3.2 Description of TED Graduate Trainers in Terms of Age

Majority of respondents in this study were generally between the age of 20 and 39 years. This was due to the fact that they had recently been deployed in the TVET institutions and were yet to be loaded with much workload. Table 4.1 describes the respondents in terms of their age.

Table 4.1: Age Distribution of the TED Graduate Trainers

Age Bracket	Frequency	Percentage (%)
20-29	342	42.01
30-39	252	30.96
40-49	147	18.06
50 and above	73	8.97
Totals	814	100

Table 4.1 above summarizes the age brackets of the respondents who participated in the study. From the statistics, 72.97% of the respondents were below age 40 representing a fairly youthful training force. This is because the graduation numbers of TED graduates have tremendously over the last years when TVET gained popularity after the rolling out of Vision 2030 blueprint was established in 2008. The blueprint advocated for the increase in technical and vocational training because its success was anchored on the training of more technical workforce that would fill job opportunities in the more industrializing Kenya.

4.3.3. Marital Status of TED Graduate Trainers

In terms of marital status, the population of the TED Trainers was described as follows:

Table 4.2: Population of the Sample in terms of Marital status

Marital Status	Frequency	Percentage
Married	537	65.97
Unmarried	277	34.03
Total	814	100.0

Table 4.2 shows the frequencies of the participants in terms of marital status as well as percentages. 537 of the participants were married while the unmarried were 277 of the respondents.

4.3.4 Working Experience of the TED graduate trainers

In terms of the working experience, the respondents are described as Figure 4.2.

The Table 4.3 shows the frequency contained in various groupings of respondents for the study in terms of their working experience together with the percentages.

Table 4.3: Working Experience of TED graduate trainers

S/No	Working Experience (years)	Frequency	Percentage (%)
1	0-5	398	48.89
2	6-10	260	31.94
3	11 and above	156	19.16
	Total	814	100

Figure 4.2 gives a visual impression of the working experience of TED graduates who participates in the study.

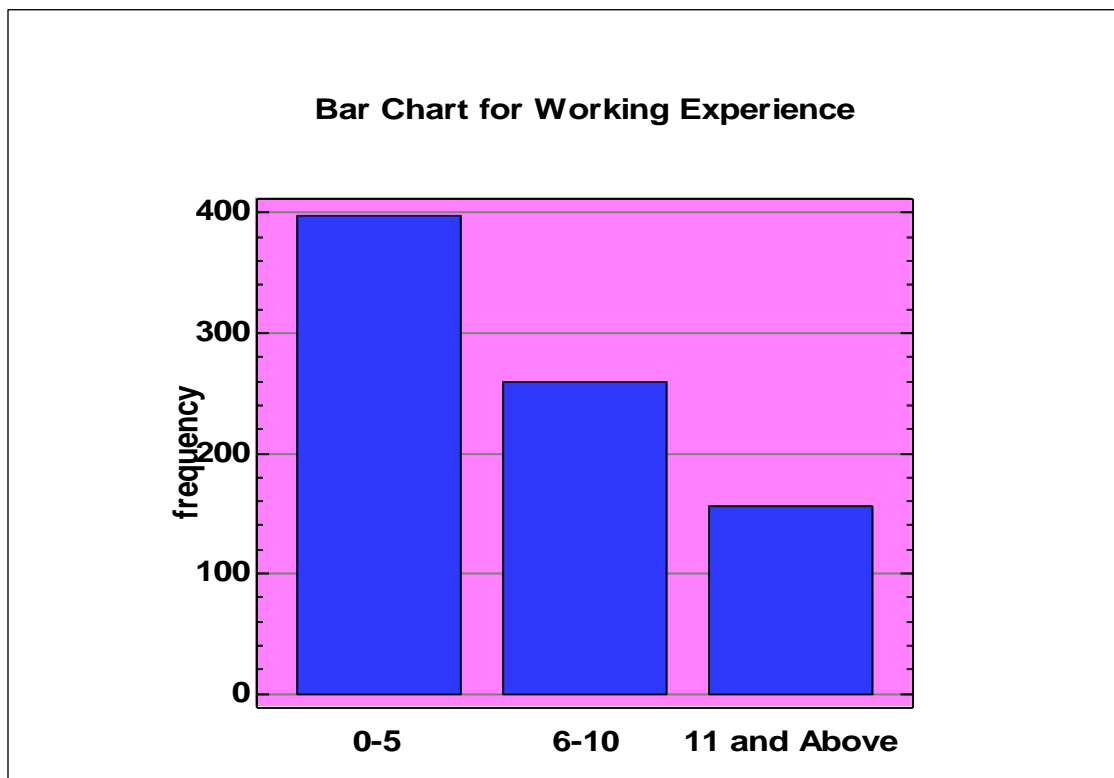


Figure 4.1: Bar Chart for Working Experience (in years) of the Respondents

4.4 Influence of Non- Academic Factors on Career Adaptability of TED graduates

This study investigated the effect of non-academic factors on career adaptability of Kenyan technology education graduates. This section covers relationship between non-academic factors and career adaptability. These non-academic factors include family background, gender and personality. To obtain influence of the non-academic factors on career adaptability, it was presumed that career career adaptability was a result of mutual interaction of all the characteristics of the TED graduate trainers.

The mean scores of the profiles of career adaptability (concern, control, curiosity and confidence) were determined by computing the average for each of the four profile factors of career adaptability as indicated by each of the respondents' category as depicted by their responses in the questionnaire. With the scores ranging from 1-5, mean scores that fall below 2.5 implied low career adaptability while those above 2.5 implied high career adaptability(Rossier & Savickas, 2017).

4.4.1 Influence of Family Background on Career Adaptability of TED graduate trainers

In determining the influence of non-academic factors on career adaptability, this study investigated the place of family background in terms of socio-economic status on career adaptability of TED graduate trainers. First, the TED graduate trainers were probed to indicate the range of monthly income from which it was determined if the TED trainer was raised from either poor, middle-class or rich family background. The data obtained is as shown in Table 4.4 .

Table 4.4: Economic Status of TED Graduate Trainers' families

Family Background	Frequency	Percentage (%)
Poor	301	36.98
Middle Class	366	44.96
Rich	147	18.06
Total	814	100

Table 4.4 shows the counts of respondents from the three family background categories as identified by the study. 301 (36.98%) were graduates who, through their time of schooling belonged to households whose monthly earning ranged from Kshs.0 to Kshs.23,670, 366 (44.96%) came from middle class families earning a monthly income of between Kshs.23,671 and Kshs.119,999, while 147 (18.06%) were from rich families earning Kshs. 120,000 and above. These earning brackets that distinguish categorize households in terms of socio-economic status were as provided by the Kenya Bureau of Standards (2017). The percentage of the respondents from poor class was almost similar to the percentage of poverty level in 2015/2016 which, according to KIPPRA (2020) ,was 36.1% .

Secondly, the TED graduate trainers were prompted to give their views on how their family background influenced their development of the four area of career adaptability. This would help them to reflect on how their family background influenced their career adaptability as they filled the extent tot which they had developed strengths in the four profile factors of career adaptability.

To analyse the differences in the development of various strengths in career adaptability by the TED graduate trainers, the filled questionnaires for the TED graduate trainers were grouped basing on the socio-economic status as indicated by the range of income of the TED trainer. The researcher, then, started with the CAAF-SF on the questionnaires filled by TED graduate trainers from poor family backgrounds and obtained the scores (ranging from 1-5 in CAAS-SF) for career concern (1-3), career control (4-6), career curiosity (7-9) and career confidence (10-12). The researcher then entered the scores for each profile of career adaptability in Stat Graphics software for the computation of the cumulative means for each profile factor of career adaptability, standard deviation and frequency. The generated table was as shown in Table 4.5.

Table 4.5: The sample of Table for Scores of Career Adaptability of TED graduate trainers from Poor Family Background

TED Trainer from Poor Background	Career Adaptability scores							
	Career concern	Total	Career control	Total	Career curiosity	Total	Career confidence	Total
1.	3,5,4	12	4,,3,5	12	4,4,4	12	5,4,5	14
2.	4,3,4	11	3,3,5	11	4,5,4	13	3,4,5	12
3.	3,3,5	11	4,,3,4	11	4, 3,4	11	2,3,5	10
4.	3,5,4	12	4,,3,4	11	4,4,5	13	4,4,5	13
5.	5,4,5	14	3,,5,5	13	4,3,4	11	4,5,4	13
6.	5,3,4	12	4,,3,5	12	4,4,3	11	4,3,5	12
Cumulative		4.0000		3.888		3.944		4.1111
Means				8		4		

For instance, the cumulative mean score for career concern of the first six respondents above was computed by obtaining the cumulative totals and then dividing the result by 18 (6*3 entries for each respondent). That is $72/18$ which gives 4.000. The mean came along with the standard deviations and frequencies. The same approach was used to obtain the simplified scores for TED graduate trainers who came from families with middle-class and rich family background that was entered in Stat Graphics software for analysis. The researcher, then, extracted the obtained statistics for the TED graduate trainers poor, middle-class and rich family background, and combined them to come up with Table 4.6 in which the difference in scores of profiles of career adaptability could be visualized for interpretation and discussion .

Table 4.6: Family background and Career Adaptability of TED graduate trainers

Family Background		Career Adaptability			
		Concern	Control	Curiosity	Confidence
Poor(37%)	Mean	4.2381	4.2369	4.4165	4.4285
	Std. Dev.	0.8309	0.8309	0.5976	0.8106
	Frequency	301	301	301	301
Middle Class(45%)	Mean	3.9667	4.0000	3.9000	4.1000
	Std. Dev.	0.7649	0.9097	0.8847	0.7589
	Frequency	366	366	366	366
Rich(18%)	Mean	3.6667	4.4891	4.5000	4.1667
	Std.Dev.	1.3027	0.5239	0.5222	0.5774
	Frequency	147	147	147	147

From the findings, it was observed that graduates from poor family background had highest values of curiosity (Mean= 4.4165) and lowest values of control (Mean=4.2369). For graduates from family background that belong to middle class, it was observed that they had highest values of confidence (Mean=4.1000) and lowest values of curiosity (Mean=3.9000). Moreover, it was also observed that graduates from rich family background had highest values of curiosity (Mean=4.5000) with the lowest values of concern (Mean= 3.6667).

Concern, as a profile factor of career adaptability, was the highest for graduates coming from poor family background to graduates (Mean =4.2381) followed by that for graduates from middle class status (Mean=3.9667), and lastly, graduates from rich family background (Mean=3.6667). This could be due to the urge of graduates from poor family background to be committed to bring change to their families through working hard and carrying out their career tasks as professionally as possible to maintain their jobs and attract better rewards. The urge tends to decrease with increase in per capita income for the family from which graduates were raised.

Graduates from rich family background had highest score for control (Mean = 4.4891) followed by graduates from poor family background (Mean = 4.2369), while graduates from middle class families had the lowest values of control as a construct of career adaptability (Mean = 4.0000).

Curiosity as a profile of career adaptability had highest scores among graduates from rich families (Mean = 4.5000). The graduates from poor families followed by a mean of 4.4165 and then the people from middle class had the lowest scores (Mean = 3.9000). This could be attributed to the fact that graduates from rich background had a vast

knowledge of career world so they had high aspirations in terms of seeking better opportunities that were in line with their family status (Liu *et al*, 2015). This finding also agreed with the findings by Wiwik *et al* (2017) that revealed that there was an observed increase in exploratory behaviour among graduates when more parental support and care was involved. The graduates from poor family background might also have had higher values of curiosity due to their increased urge to gather more knowledge so that they can be effective in their professional activities. The graduates from poor family background might also have had their exploratory behaviour stirred up by their parents' motivation to work hard as parental support is more than monetary assistance.

Graduates from poor family background had highest scores of confidence (Mean = 4.4285) followed by graduates from rich family background (Mean = 4.1667) while graduates from middle class family background had the lowest scores of confidence (Mean = 4.1000).

To conclude, it can be observed that family background influences career adaptability in the sense that depending on how a family's per capita is characterized, a person is raised in a manner that dictates how much one develops in the four profiles of career adaptability. For instance, being raised in a poor family background has been seen to inculcate career control and career concern because the background self determination to do things right (concern) and to be able manage diverse situations as they arise(control). Rich family background, on the other hand, having more opportunities to enable one to explore, enables development of high levels of curiosity.

4.4.2 Influence of Gender on Career Adaptability of TED Graduate Trainers

The influence of gender on career adaptability of TED graduate trainers was investigated in this study. To realize this, the TED graduate trainers were first asked their gender. Thereafter, the TED graduate trainers were asked an introductory question on how gender affected their career adaptability. The question was to brainstorm the TED graduate trainers on the forthcoming filling of the CAAS-SF where they indicated the level to which they had developed in the four areas of career adaptability.

Of the 814 respondents who took part in the study, 513 were male while 301 were female. This was a good representative of gender because generally in Kenya, the number of female taking engineering and related courses is lower as compared to that of male. Although there has been affirmative action to empower women through education and promoting equity, the general population of female students pursuing Technology Education programmes in Kenyan Universities as well as in Technical and Vocational Education and Training institutions is lower as compared to that of male counterparts. Table 4.7 shows gender distribution of TED graduate trainers who participate in the study.

Table 4.7: Frequency Table for Gender Distribution of the TED Graduate Trainers

Gender	Frequency	Percentage
Male	513	63.02
Female	301	36.98
Totals	814	100

Table 4.7 shows the counts contained in Sample, as well as percentages. Male participants in the study were 513 TED graduate trainers who represented 63.02 % of the observed counts while their female counterparts were 301 which represented 36.98% of the total number. This is due to the fact that despite efforts to ensure gender balance in Science, Technology, Engineering and Mathematics (STEM), population of females is still lower than that of males (Najoli, 2019).

To determine the influence of gender on career adaptability, the filled questionnaire for male and those of female TED graduate trainers were sorted. The researcher, then, went to the CAAF-SF filled on the questionnaires filled by male TED graduate trainers and obtained the scores (ranging from 1-5 in CAAS-SF) for career concern (1-3), career control (4-6), career curiosity (7-9) and career confidence (10-12). The researcher then entered the scores for each profile of career adaptability in Stat Graphics software for the computation of the cumulative means for each profile factor of career adaptability, standard deviation and frequency. The generated table was as shown in Table 4.8.

Table 4.8: The sample of Table for Scores of Career Adaptability of Male TED graduate trainers

Male TED Graduate	Career Adaptability scores							
	Career concern	Tota 1	Career control	Total	Career curiosity	Tota 1	Career confidence	Total
1.	3,5,4	12	4,,3,5	12	4,4,4	12	5,4,5	14
2.	4,3,4	11	3.3,5	11	4,5,4	13	3,4,5	12
3.	3,3,5	11	4,,3,4	11	4, 3,4	11	2,3,5	10
4.	3,5,4	12	4,,3,4	11	4,4,5	13	4,4,5	13
5.	5,4,5	14	3,,5,5	13	4,3,4	11	4,5,4	13
6.	5,3,4	12	4,,3,5	12	4,4,3	11	4,3,5	12
Cumulative		4.00		3.888		3.94		4.1111
Means		00		8		44		

For instance, the cumulative mean career concern of the first six respondents above was computed by obtaining the cumulative totals and then dividing the result by 18 (6*3 entries for each respondent). That is $72/18$ which gives 4.000. The mean came along with the standard deviations and frequencies. The same approach was used to obtain the simplified scores for female TED graduate trainers that was entered in Stat Graphics software for analysis. The researcher, then, extracted the obtained statistics for the male and female TED graduate trainers and combined them to come up with Table 4.3 in which the difference in scores of profiles of career adaptability could be visualized for interpretation and discussion.

Table 4.9: Gender Differences and Career Adaptability of TED graduate trainers

Gender		Career Adaptability			
		Concern	Control	Curiosity	Confidence
Male	Mean	3.9778	4.2785	4.2444	4.2889
	Std. Dev.	0.9650	0.5886	0.7733	0.7268
	Frequency	513	513	513	513
Female	Mean	4.0000	4.0556	4.0489	4.1667
	Std. Dev.	0.7670	0.9297	0.9376	0.8575
	Frequency	301	301	301	301

The study found out that female graduates have slightly higher levels of career concern (Mean = 4.0000) as compared to their male counterparts (Mean = 3.9778). The male graduates, on the other hand, recorded higher values of control, curiosity and confidence. This, in general terms revealed that male graduates were better in terms of career adaptability compared to female graduates. This could be due to the fact that Kenyan culture obligates males with responsibilities of providing for their households and ,therefore, males are likely to strive hard to cope with changes and maintain balance. This agreed with the findings those of Han & Rojewski (2015) but differed with the findings of Ferreira (2012), Coetzee & Harry (2014) and those of Ntaragwe *et al* (2021). This conforms to what Ntaragwe *et al* (2021) found out that use of gender alone to describe career adaptability of a group of participants is not conclusive. Other factors, indeed, have to play along.

For this study, therefore, revealed that male TED graduate trainers were more adapted to career than female graduates. Given that other frontier findings found out that females are more adapted to career than males, gender influence of career adaptability of individuals can be said to have either positive or negative influence on career adaptability. That is, depending on the characterization of the environment or context of the respondents involved, gender poses varied influence on career adaptability.

4.4.3 Influence of Personality on Career Adaptability of TED Graduate Trainers

To determine the influence of personality on career adaptability, the TED graduate trainers were first asked to identify their personality by using a brief description of various personalities to identify where they belonged. Thereafter, the TED graduate trainers were asked an introductory question on how their personality affected their adaptability to career. The question was to brainstorm the TED graduate trainers on the forthcoming filling of the CAAS-SF where they indicated the level to which they had developed in the four areas of career adaptability.

In terms of the personality of the respondents, Table 4.10 describes the distribution of the respondents in terms of their personality.

Table 4.10: Distribution of Personality Traits of TED Graduate Trainers

Dominant Trait	Frequency	Percentage
Agreeableness	181	22.24
Conscientiousness	159	19.53
Extroversion	143	17.57
Neuroticism	140	17.20
Openness	191	23.46
Totals	814	100.0

Table 4.10 shows the frequency contained in terms of dominant personality trait of the respondents, as well as percentages . Generally, none of the traits is far much more than others. This revealed good distribution of the respondents.

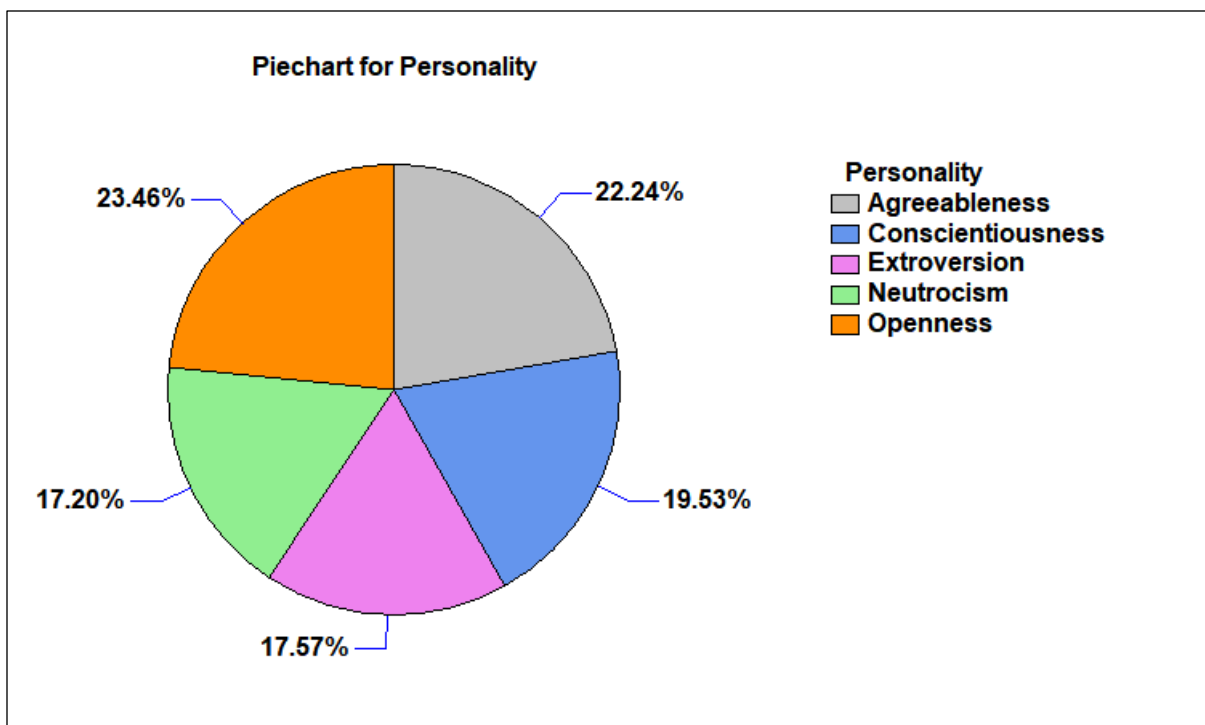


Figure 4.2 Pie Chart for the Distribution of Dominant Personality Traits of Respondents

To determine the influence of gender on career adaptability, the filled questionnaire for were sorted in terms of the personality traits of TED graduate trainers. The researcher, then, went to the CAAF-SF filled on the questionnaires filled by male TED graduate trainers and obtained the scores (ranging from 1-5 in CAAS-SF) for career concern (1-3), career control (4-6), career curiosity (7-9) and career confidence (10-12). The researcher then entered the scores for each profile of career adaptability in Stat Graphics software for the computation of the cumulative means for each profile factor of career adaptability, standard deviation and frequency. This was done for each group of personality. The researcher, then, extracted the obtained descriptive statistics for each of the five personality traits and combined them to come up with Table 4.11 in which the difference

in scores of profiles of career adaptability could be visualized for interpretation and discussion .

The generated table was as shown in Table 4.11.

Table 4.11: Personality and Career Adaptability of TED graduate trainers

Personality		Career Adaptability			
		Concern	Control	Curiosity	Confidence
Agreeableness	Mean	4.1482	4.3333	4.2222	4.1571
	Std.Dev.	0.6624	0.6793	0.8006	0.7698
	Frequency	181	181	181	181
Conscientiousness	Mean	4.2083	4.0417	4.1667	4.4583
	Std. Dev.	0.7790	0.9546	0.8681	0.5882
	Frequency	159	159	159	159
Extroversion	Mean	4.0667	3.5333	4.2000	4.3333
	Std. Dev.	0.9612	0.9155	0.7746	0.7237
	Frequency	143	143	143	143
Neuroticism	Mean	4.0667	4.3333	3.7333	3.3333
	Std. Dev.	0.7988	0.8997	0.9611	0.9759
	Frequency	140	140	140	140
Openness	Mean	3.1667	4.1667	3.9167	4.1067
	Std. Dev.	1.2673	0.5774	0.7930	0.7177
	Frequency	191	191	191	191

Considering each personality trait independently, graduates whose dominant trait was agreeableness had highest values of control (Mean = 4.3333) and lowest levels of concern (Mean = 4.1482). Graduates with conscientiousness personality trait had highest values of confidence (Mean = 4.4583) and lowest values of control (Mean = 4.0417). Graduates with extroversion personality trait were found to have highest values of confidence (Mean = 4.3333) but lowest values of control (Mean = 3.5333). Graduates with dominant neuroticism personality trait had highest values of control (Mean = 4.3333) but lowest values of career adaptability for concern (Mean = 4.0667).

In terms of scores in each construct of career adaptability, graduates whose personality trait is conscientiousness had the highest scores of concern (Mean = 4.2083) while graduates with openness personality trait had the lowest scores of career concern (Mean = 3.1667). This finding agrees with the findings of Burger (2006) and Feride (2021) who found out that conscientiousness was the strongest indicator of the total score of career adaptability on an individual.

Graduates with agreeableness and those with neuroticism personality traits had the highest values of career control (Mean = 4.3333). This could have been caused by the fact that agreeableness comes along with politeness as well as ability to accommodate others which could make an individual control themselves and others. To account for neuroticism having highest scores of control, the personality trait comes along with being careful to avoid irritating scenarios and this could lead to the concerned individuals having better control of themselves. Extroversion, on the other hand, had the lowest values of career control (Mean = 3.5333) and this could be due to the fact that individuals

having this personality trait social, talkative and love fun. Thus, the individuals might lack the ability to tame themselves as well as control others accordingly.

Graduates with agreeableness personality had highest scores of curiosity (Mean = 4.2222). This could be linked with the fact that the personality is characterized by flexibility and this could imply that the graduates in this category like in investigating viable options and also embracing diversity in their workplaces. Graduates belonging to neuroticism personality trait were found to have the lowest scores of curiosity (Mean = 3.7333).

Lastly, conscientiousness had highest values of confidence (Mean = 4.4583) while neuroticism had the lowest values (Mean = 3.3333). Technology education graduates who had conscientiousness as dominant personality could have had highest values of profiles of career adaptability due to the fact that the personality is characterized by honest, hardworking and following rules as well as cherishing perfection. These attributes are essential in building an individual's confidence. Neuroticism have had lowest values of confidence due to the reason that individuals in this personality easily get irritated and are moody as supported by the theoretical view of Savickas & Porfeli (2012). The negative correlation obtained between neuroticism personality trait and career adaptability was also found out by Nilforooshan & Salimi (2016) Oncel (2014) and Rusu *et al* (2015). This could be a deterrent to having greater confidence when handling issues.

In a nutshell, the findings concerning the impact of personality on career adaptability revealed a significant relationship between personality and career adaptability. These findings agreed with the findings of Teixeira (2012), Viaven *et al* (2012), Fan & Yao (2012), Nauta & Derckx (2007), Kavas *et al* (2015) and Zacher (2014). Neuroticism,

indeed, in general terms recorded lowest values of such constructs as curiosity and confidence.

4.5 Influence of Academic Factors on Career Adaptability of TED Graduates

The second objective of the study was to establish the impact of academic factors on career adaptability. The factors that embodied academic factors included category of high school attended, year of graduation, area of specialty and entry behaviour.

4.5.1 Influence of Category of High School Attended on Career Adaptability of TED graduate trainers

In examining the influence of non-academic factors on career adaptability, Category of high school attended was factored in. TED graduate trainers were first asked identify their the category of high school they attended. Thereafter, the TED graduate trainers were probed to think about how the category of high school they attended influenced their adaptability to career. The question was to brainstorm the TED graduate trainers on the forthcoming filling of the CAAS-SF where they indicated the level to which they had developed in the four areas of career adaptability.

To determine the influence of category of high school attended on career adaptability, the filled questionnaire for were sorted in terms of category of high school attended by the TED graduate trainers. The researcher, then, went to the CAAF-SF filled on the questionnaires filled by each of the groups of questionnaires in terms of the category of high school attended by the TED graduate trainers and obtained the scores (ranging from 1-5 in CAAS-SF) for career concern (1-3), career control (4-6), career curiosity (7-9) and career confidence (10-12). The researcher entered the scores for each profile of career

adaptability in Stat Graphics software for the computation of the cumulative means for each profile factor of career adaptability, standard deviation and frequency. This was done for each group of personality. The researcher, then, extracted the obtained descriptive statistics for each of the categories of high school attended and combined them to come up with Table 4.12 in which the difference in scores of profiles of career adaptability across the categories of high school attended could be visualized for interpretation and discussion.

Table 4.12: Category of High School Attended and Career Adaptability of TED graduate trainers

Category of High School Attended		Career Adaptability			
		Concern	Control	Curiosity	Confidence
Sub-County	Mean	4.2500	4.3333	4.5833	4.5000
	Std. Dev.	0.6216	0.6514	0.7930	0.9045
	Frequency	155	155	155	155
County	Mean	3.7143	4.2341	3.9524	4.0476
	Std. Dev.	1.2306	0.7002	0.8047	0.6690
	Frequency	196	196	196	196
Extra County	Mean	4.0667	4.0667	4.2667	4.1333
	Std. Dev.	0.7037	0.8837	0.5936	0.6399
	Frequency	213	213	213	213
National	Mean	4.0667	4.4000	4.5333	4.0667
	Std.Dev.	0.7988	0.6325	0.6399	0.7957
	Frequency	178	178	178	178
Private	Mean	4.2667	3.4000	4.5333	4.6667
	Std. Dev.	0.7037	0.9103	0.7432	0.6399
	Frequency	72	72	72	72

Graduates who went through private high schools had highest values of career concern (Mean = 4.2667). Private schools, according to Tessa *et al* (2013), are known for merit and therefore learners from their institutions are drilled towards having an articulate career path. For this reason, graduates who went to this group of schools are likely to prepare well for future career, think about what their future career would be as well as being concerned about the educational and vocational choices that are in line with their career. Graduates who went through county schools, on the other hand, had the lowest values of career concern (Mean = 3.7143).

Concerning career control, graduates who went through national schools had highest scores (Mean = 4.4000) while graduates who had gone through private schools had lowest scores of control (3.4000). This could be due to the fact that majority of national schools, having enough resources and having admitted the country's top cream, they provide opportunities for their learners to prepare own notes and be accountable to themselves in order to manage the highly competitive environment and this could instill high control capacity. Private schools, on the other hand, being focused on customer satisfaction and merit for survival (Wamalwa & Burns, 2017) tend to take full responsibility of controlling the learners and ensuring that they achieve better results and thus their learners might have found it hard to develop career control.

Graduates who went through sub-county schools had highest scores of career curiosity (Mean = 4.5833). This could be due to the fact that these graduates, having come from places with scanty resources, might have had self-driven motives to seek more information for them to qualify for university entry and this points towards having high degree of curiosity. Graduates who went through county schools, on the other hand, had

the lowest scores of curiosity (Mean = 3.9524). This could be due to the fact that the learners in county schools have better resources and are not under much pressure as the rest so as to achieve merit. This fact can be substantiated by the following summary: students in sub-county schools are most curious so as to obtain information that can enable securing a chance in university, students in national schools are more curious to seek information that can make them better than others in their highly competitive set-up, students in private schools are more coerced to be more curious to find better information that can keep their schools renowned while students in county schools might not be in such scenarios of seeking as much information.

Graduates who went through private schools were found to have highest scores of career confidence (Mean = 4.6667) while those from county schools had the lowest scores (4.0476). Graduates from private schools might have developed this through the commitment that their schools have to ensure development of learners' full potential including leadership skills. This boosts confidence in learners from private schools. Graduates from sub-county schools came second after private schools (in terms of confidence) and this could be due to the fact that students who make it to university from sub-county schools are usually outgoing, extreme outliers in terms of performance and are darlings to their teachers, principals and therefore are likely to be confident in themselves.

This study, as opposed to the findings of Nurten (2017), revealed that there was no similar interaction among the constructs of career adaptability for graduates who went through various categories of schools. As pointed out earlier, Kenyan education context

(as opposed to Turkish system from which Nurten's finding originated) offers a different learning environment that would have been responsible for these new findings.

4.5.2 Influence of Year of Graduation on Career Adaptability of TED graduate trainers

In examining the influence of non-academic factors on career adaptability, this study sought to determine the influence of year of graduation on career adaptability. TED graduate trainers were first asked to identify their year of graduation. Thereafter, the TED graduate trainers were probed to think about how their years of graduation influenced their adaptability to career. The question was to brainstorm the TED graduate trainers on the forthcoming filling of the CAAS-SF where they indicated the level to which they had developed in the four areas of career adaptability.

To determine the influence of year of graduation on career adaptability, the filled questionnaire were sorted along the lines of year of graduation of the TED graduate trainers. The researcher, then, went to the CAAS-SF filled on the questionnaires filled by each of the groups of questionnaires in terms of year of graduation of TED graduate trainers and obtained the scores (ranging from 1-5 in CAAS-SF) for career concern (1-3), career control (4-6), career curiosity (7-9) and career confidence (10-12). The researcher entered the scores for each profile of career adaptability in Stat Graphics software for the computation of the cumulative means for each profile factor of career adaptability, standard deviation and frequency. This was done for each group of year of graduation. The researcher, then, extracted the obtained descriptive statistics for each of the groups of year of graduation and combined them to come up with Table 4.13 in which the

difference in scores of profiles of career adaptability across year of graduation could be visualized for interpretation and discussion.

Table 4.13: Year of Graduation and Career Adaptability

Year of Graduation		Career Adaptability			
		Concern	Control	Curiosity	Confidence
2000 and Below	Mean	4.5000	4.4483	4.4444	4.5127
	Std.Dev.	0.8556	0.7538	0.7048	0.7149
	Frequency	61	61	61	61
2001-2005	Mean	4.2222	4.3845	4.3333	4.1667
	Std.Dev.	0.6468	0.7669	0.7861	0.7859
	Frequency	66	66	66	66
2006-2010	Mean	4.1905	4.1429	4.2857	4.1387
	Std.Dev.	0.6016	0.7270	0.7171	0.9103
	Frequency	87	87	87	87
2011-2015	Mean	4.1333	4.3333	3.9389	4.1368
	Std.Dev.	0.9155	0.8997	0.7037	0.8338
	Frequency	232	232	232	232
2016-2022	Mean	4.0278	3.8611	4.0556	3.9167
	Std. Dev.	0.8102	0.8333	0.7538	0.7319
	Frequency	368	368	368	368

From the data collected, it was found that graduates who completed their studies before the year 2000 had highest values of concern (Mean =4.5000) while the graduates who exited campus from 2016 - 2022 had lowest values of career concern (Mean = 4.0278). This could be due to the fact that older graduates have acquired vast knowledge on vocational and educational choices and had better grasp of what it takes to be concerned about their career.

Moreover, the oldest graduate category (2000 and below graduates) have the largest values of career adaptability in all the other constructs (control, curiosity and confidence). This could imply that the older someone becomes while practicing in a certain profession, the more adaptable the individual becomes.

Recent graduates (those who left campus between 2016 and 2022), had the lowest scores of career adaptability apart from curiosity where they obtained a mean that was slightly above that obtained for the group of between 2011-2015. In summary, the more the age, the more the growth of career adaptability of in individual. This finding agreed with what was found by Yu *et al* (2019), Ntaragwe *et al* (2021) and Kim & Kim (2022).

4.5.3 Influence of Area of Specialty on Career Adaptability of TED graduate trainers

This study also delved into the influence of area of specialty (as a subset of academic factors) on career adaptability. The respondents were from five areas of specialty: Building and Construction Technology, Computer Studies, Electrical and Electronics Technology, Mechanical Technology, and Power Mechanics Technology.

Table 4.14: Distribution of TED graduate trainers in Terms of Area of Specialty

Area of Specialty	Frequency	Percentage
Building and Construction Technology	293	36.00
Computer Studies	139	17.08
Electrical and Electronics Technology	253	31.08
Mechanical Technology	57	7.00
Power Mechanics Technology	72	8.85
Other areas of specialty	0	0.00
Total	814	100.0

Table 4.14 shows the number of respondents contained in various areas of specialization, as well as percentages. Building and Construction Technology and Electrical and Electronics Technology graduates formed majority of the respondents (accounting for 36% and 31.08% respectively) while Power Mechanics and Mechanical Technology graduates were smallest in number (accounting for 8.75% and 7.00% respectively). This may be due to the fact that a smaller number of students enrol in these courses hence a smaller number of graduates thereof. The study did not have trainers in other areas of specialties as it focused on the five major areas of Technology Education as identified in the operational definition of TED trainer in this study.

To determine the influence of area of specialty on career adaptability, the filled questionnaires were sorted along the lines of area of specialty of the TED graduate trainers. The researcher, then, went to the CAAF-SF filled on the questionnaires filled by each of the groups of questionnaire in terms of area of specialty of TED graduate trainers

and obtained the scores (ranging from 1-5 in CAAS-SF) for career concern (1-3), career control (4-6), career curiosity (7-9) and career confidence (10-12). The researcher entered the scores for each profile of career adaptability in Stat Graphics software for the computation of the cumulative means for each profile factor of career adaptability, standard deviation and frequency. This was done for each each area of specialty. The researcher, then, extracted the obtained descriptive statistics for each of the groups of year of graduation and combined them to come up with Table 4.15 in which the difference in scores of profiles of career adaptability across area of specialty could be visualized for interpretation and discussion .

Table 4.15: Area of specialty and Career Adaptability

Area of Specialty		Career Adaptability			
		Concern	Control	Curiosity	Confidence
BCT	Mean	4.2778	4.5000	4.1111	4.1667
	Std.Dev.	0.8948	0.7071	0.7584	0.8575
	Frequency	293	293	293	293
COS	Mean	4.2667	4.4000	4.1333	4.2712
	Std. Dev.	0.7988	0.7368	0.9904	0.7988
	Frequency	139	139	139	139
ELT	Mean	3.9047	4.1429	4.4286	4.2857
	Std.Dev.	0.8309	0.6545	0.6761	0.7171
	Frequency	253	253	253	253
MET	Mean	3.8667	3.9333	3.9333	4.0667
	Std. Dev.	0.8338	0.8837	0.9612	0.7037
	Frequency	57	57	57	57
PMT	Mean	4.2790	4.0833	3.9167	4.1667
	Std. Dev.	0.7538	0.6686	0.6686	0.7177
	Frequency	72	72	72	72

This study revealed that despite belonging to one professional field, any slight difference in what the graduates major in significantly affects their career adaptability. The study found out that Technology Education graduates who specialized in Power Mechanics Technology had highest values of career concern (Mean = 4.2790) which was slightly above that of Building and Construction Technology by difference of 0.0012. Mechanical Technology Graduates, on the other hand had the lowest values of career concern (Mean = 3.8667).

In terms of career control, graduates from Building and Construction Technology had highest values (Mean = 4.5000) while graduates from Mechanical Technology had the lowest scores (Mean = 3.9333). Elsewhere, graduates who pursued Electrical and Electronics Technology had highest scores of career curiosity (Mean = 4.4286) while graduates who pursued Power Mechanics Technology had the lowest values of curiosity (Mean = 3.9167) . Although the values of career adaptability among the graduates interacted unpredictably, it can be said that generally, graduates from Building and Construction Technology and those who pursued Computer Studies had relatively higher career adaptability as compared to their colleagues who pursued the other courses These findings are supported by the findings by Creed *et al* (2009) who found out that situational variables also influence career adaptability of individuals belonging to a similar field. This, therefore, implies that differentiated encounters by the different specialties is the reason for this variation.

4.5.4 Influence of Entry Behaviour on Career Adaptability of TED graduate trainers

Last but not least, while scrutinizing academic factors versus career adaptability, the study examined the impact of entry behaviour on career adaptability. In this, the study considered grade scored at high school level and also that class scored at university level.

To determine the influence of entry behaviour on career adaptability, the filled questionnaire were sorted along the lines of entry behaviour of the TED graduate trainers. The researcher, then, went to the CAAF-SF filled on the questionnaire filled by each of the groups of questionnaires in terms of entry behaviour of TED graduate trainers and obtained the scores (ranging from 1-5 in CAAS-SF) for career concern (1-3), career control (4-6), career curiosity (7-9) and career confidence (10-12). The researcher entered the scores for each profile of career adaptability in Stat Graphics software for the computation of the cumulative means for each profile factor of career adaptability, standard deviation and frequency. This was done for each each area of specialty. The researcher, then, extracted the obtained descriptive statistics for each of the groups of entry behaviour and combined them to come up with Table 4.16a and 4.16b in which the difference in scores of profiles of career adaptability across entry behaviour could be visualized for interpretation and discussion .

The data collected is as summarized in Table 4.16a and Table 4.16b.

Table 4.16a: Entry Score (from performance at High School) and Career Adaptability

Entry Score(from High School)		Career Adaptability			
		Concern	Control	Curiosity	Confidence
A-(Minus)	Mean	4.0667	4.1583	4.1333	3.9333
	Std.Dev.	0.7988	0.8319	0.8338	0.9612
	Frequency	114	114	114	114
B+ (Plus)	Mean	3.9259	4.1111	4.1482	4.0741
	Std. Dev.	0.7808	0.8006	0.8182	0.7808
	Frequency	236	236	236	236
B(Plain)	Mean	3.9394	4.0606	3.9697	4.1818
	Std.Dev.	0.8638	0.8269	0.8472	0.7269
	Frequency	391	391	391	391
B-(Minus)	Mean	4.2500	4.3333	4.2500	3.8333
	Std.Dev.	0.7538	0.7785	0.7538	0.7177
	Frequency	44	44	44	44
C+ (Plus)	Mean	4.1667	4.5000	4.6667	4.2500
	Std.Dev.	0.7177	0.5222	0.4924	0.6216
	Frequency	29	29	29	29

Note: In this study, A- (Minus) was the highest score (according to Kenyan grading) and the scores decrease progressively downwards.

Having sorted the questionnaire responses according to graduates' score at high school level and analyzed the data on career adaptability, several insights were observed. Graduates who scored B- (Minus) at high school level had the highest values of concern (Mean = 4.2500) while those who attained B+ (Plus) had the lowest scores of career concern (Mean = 3.9259). In terms of career control, graduates who attained C+(Plus) in high school had the highest scores (Mean = 4.5000) while those who attained B (Plain) had the lowest scores (Mean = 4.0606) of career control. Students who scored C+(Plus) also the highest scores of career curiosity (Mean = 4.6667). while those who scored B (Plain) had the lowest scores of career curiosity (Mean = 3.9697). In terms of career confidence, it was observed that again students who scored C+ (Plus) had highest scores while the graduates who scored B-(Minus) had the lowest values of career confidence.

The findings, therefore, revealed that generally, graduates who scored C+ (Plus) were more adapted to career than their counterparts. Due to the fact that before 2016, direct entry to university was capped at B(plain), students who scored C+ (Plus) had to do a diploma course before enrolling for a degree course in university. This study, having covered technology education graduates who graduated in years ranging from less than 2000 to 2022, could have covered majority of TED graduates who underwent diploma courses before joining university. This could have been attributed to these high values of career adaptability among graduates who scored C+ (Plus) at secondary level. This is can be confirmed by the trend that was observed in scores of career concern, control and curiosity whereby the scores decreased from A-(Minus) which is the highest score to B(Plain) and then started to rise from B- (Minus) and then those who scored C+(Plus) had higher scores.

It can be ,therefore, concluded that career adaptability can only be linked with entry behaviour at high school level if all graduates just proceed to university without undergoing through other training. This finding disagreed with what Van Viaven *et al* (2012) found out that there is insignificant relationship between general mental ability and career adaptability.

Table 4.16b: Entry behavior (from performance at University) and Career Adaptability

Entry Score (at University)		Career Adaptability			
		Concern	Control	Curiosity	Confidence
First Class	Mean	4.3333	4.4167	4.2500	4.4167
	Std.Dev.	0.6513	0.5149	0.7538	0.6686
	Frequency	4	4	4	4
Second Class (Upper)	Mean	4.0000	4.2424	4.1925	4.1515
	Std. Dev.	0.8292	0.7084	0.7918	0.9956
	Frequency	403	403	403	403
Second Class (Lower)	Mean	3.8333	4.0000	4.1667	3.8793
	Std. Dev.	0.7177	1.0445	0.7177	0.9374
	Frequency	395	395	395	395
Pass	Mean	3.7500	3.6667	3.7129	4.1667
	Std.Dev.	0.9653	0.6513	0.7785	0.7930
	Frequency	12	12	12	12

Note: First Class is the highest score in Kenyan Universities and the scores decrease progressively downwards

When career adaptability was scrutinized alongside the class scored by graduates at university level, it was found that, graduates who had attained first class had the highest scores of career adaptability in all the constructs. Moreover, the scores progressively decreased downwards except for scores in career confidence. This clearly reveals the strong attachment that exist between what someone scores at university level and how they adapt to career. It is also good to note that none of the scores for career adaptability came below 2.5 (which points to low career adaptability/low emotional intelligence). This finding agreed with the Savickas' career construction postulation which contends that emotional intelligence gives an individual high adaptive functioning that is instrumental in shaping an individual's ability to cope with changes (Savickas,2005).

4.6 Influence of Quality of Training on Career adaptability

In investigating the effect of quality of training on career adaptability, this study incorporated aspects such as training time, availability of training facilities and curriculum content to find out how they influenced career adaptability. In the questionnaire, TED graduate trainers were provided with questions that enabled them to give their views on adequacy of such aspects as training time, availability of training facilities and curriculum content, and how they influenced their career adaptability. The responses on the adequacy of the aspects were considered in terms if the trainers agreed (the response implied "yes") , disagreed (the response implied "no") or was neutral (the response implied "not sure").

4.6.1 Training Time and Career Adaptability

The following table summarizes the responses collected in terms of sufficiency of training time on enhancing career adaptability of Technology Education graduates.

Table 4.17: Summary of Responses on Training Time

Aspect of training time	Frequency		
	Yes	No	Not Sure
Is the training time enough?	326	424	64
Are hours for pedagogical courses enough?	544	251	19
Are hours for specialization courses enough?	432	321	61
Does time allow for sufficient empowerment?	356	421	37
Does the time allow for independence?	208	595	11

Table 4.17 reveals that 424 (52.09%) refuted the sufficiency of training time for TED graduates. The 424 respondents (who purported that the training time was insufficient) recommended that the course, having wide content to cover, needed to have its training time extended to 5 years and not 4 years as other educational courses.

The study further found that majority of the respondents were satisfied with the time allocated for learning theory areas in specialization courses, majority also revealed that the time allowed does not sufficiently empower the graduates nor allow them to develop independence while handling various tasks at workplace. Lastly, the respondents were dissatisfied with the time allowed for practical part of their training at universities. This

agrees with Hunt (2017) who found that majority of Kenyan graduates exit their training programmes with insufficient suitable skills for their respective careers.

It is, however, of essence to note that regardless of the above, TED graduates had mean scores of above 2.5 (which indicates low coping capacity or emotional intelligence) for each profile factor of career adaptability. This implies that despite the failure of the training time to offer utmost satisfaction to the TED graduates, they have been resilient and diligent enough to cope with the diverse roles at their places of work.

4.6.2 Availability of Training Facilities and Career adaptability

In determining the availability of training resources for the TED graduates, the following was established.

Table 4.18 Summary of Responses on Availability of Training Facilities

Aspect of Availability of Training Facilities	Frequency		
	Yes	No	Not Sure
Are the instruments for practical enough?	67	516	231
Are the instruments modern and well-maintained?	31	643	140
Are the classrooms and textbooks sufficient?	143	486	185
Are the lecturers and technicians enough?	374	402	38
Do the institution offer enough theoretical knowledge?	581	158	75
Do the facilities offer sufficient practical skills?	29	493	292

From Table 4.18, it can be observed that most of respondents were dissatisfied with the instruments available for practicals in their universities, workshop instruments were outdated and not in proper condition for use, there were insufficient textbooks and

classrooms, and the number of available trainers (lecturers and technicians) was inadequate. In contrary to their descending opinions in almost all aspects measured, the graduates revealed that they had enough theoretical competencies from their universities.

4.6.3 Curriculum Content and Career Adaptability

This study also focused on the influence of curriculum content as a subset of quality of training on career adaptability. The established responses are as summarized in Table 4.18.

Table 4.19 Summary of Responses on Curriculum Content

Aspect of Curriculum Content	Frequency		
	Yes	No	Not Sure
Is the theoretical content up-to-date?	312	143	359
Does the content allow for sufficient empowerment?	16	678	120
Is the content systematically arranged?	407	126	281
Is the content sufficiently inclusive of required skills?	428	345	41

From Table 4.19, 359 (44.10%) of the respondents were not sure if the curriculum content was up-to-date. This could be because the respondents were not aware of the elements of a curriculum in which content has been wittingly designed and developed to blaze the contemporary issues in the world of work. 312 (38.33%) of the respondents acknowledged that the curriculum content was up-to-date while 143 (17.57%) revealed that the curriculum content was not up-to-date.

Secondly, the respondents revealed that the curriculum content was on sufficient to develop an all-round trainer that is well-versed in terms of both theoretical knowledge and practical skills. However, as seen in Table 4.18, the respondents revealed that they acquired sufficient theoretical knowledge during their study time but refuted the sufficiency of time allocated for practical sessions. This, thus, implies that much of what is acquired is theoretical and therefore graduates are only empowered in theoretical knowledge during their study time.

In the area of structuring the curriculum, majority of the respondents agreed that it was systematically organized and that it was inclusive of required skills. This implies that the curriculum is good but has not been adequately actualized. This points to the fact revealed in Table 4.17 where 402(49.39%) respondents stated that the lecturers and technicians were insufficient. With this in reality, it is possible to have some curriculum aspects not properly covered.

4.7 Summary

This chapter has presented analysis of the data collected in this study, the discussion of the findings as well as interpretation of the findings. First, the study realized a response rate of 72.23% for the technology education graduates and 100% for heads of departments. Secondly, the chapter considered the findings obtained in a sequential way as guided by the objectives of the study and the outline of the sub-elements of each objective as captured in the conceptual framework. In this, the study found out that family socio-economic status influence career adaptability whereby poor family background contributes to high levels of concern and control, middle- class status lead to high levels of confidence while rich background contributes to high curiosity levels. The

study also revealed that male TED graduate trainers were more adapted to career than their female counterparts. Generally, conscientiousness personality trait was found to have a strongest positive influence on career adaptability while neuroticism was found to have strongest negative influence on career adaptability. For the category of high school attended, county schools were found to have developed graduates with lowest levels of career adaptability while sub-county schools developed graduates with highest levels of career adaptability. The area of specialty was found to influence career adaptability TED graduate trainers as each specialty had its own trend in the levels of strength in the four areas of career adaptability. The study also found out that the longer a graduate stays after graduation, the higher the values of career adaptability. Finally, this research found out that there was no significant influence of quality of training on career adaptability of TED graduate trainers as the graduates point out various critical elements of poor quality of training yet when considers across the other correlates, they registered high values of career adaptability.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings, conclusions and recommendations thereof. The elements are discussed as follows:

5.2 Summary of Study Findings

This study, having been objectively designed to investigate the influence of non-academic factors, academic factors and quality of training on career adaptability is summarized as follows:

5.2.1 Non-Academic Factors and Career Adaptability

This objective had a set of elements specific which were selected to serve as correlates of career adaptability. These included family background, gender and personality.

5.2.1.1 Family Background and Career Adaptability

This study established that TED graduates from poor family background had the highest scores in terms of career concern and career confidence as compared to their counterparts from middle class and rich families. Graduates from rich family backgrounds, on the other hand, had the highest values of career control as well as curiosity but lowest values of concern. In a nutshell, TED graduates from poor family backgrounds were on the forefront in terms of career adaptability followed by those who hailed from the rich family backgrounds and lastly those that were raised from middle class family background. All the participants, however, when seen along the spectrum of family

background have good scores in all the constructs of career adaptability (above the mean of 2.5000) and they can be satisfactorily adapted to career.

5.2.1.2 Gender and Career Adaptability

The findings of this study revealed that male TED graduates had the highest values of control, curiosity and confidence. Female graduates, on the other hand, had highest values of career concern where they narrowly surpassed the male graduates by a margin of 0.0012. This finding, thus, revealed that male graduates were more adapted to career as compared to their female counterparts. The average scores, nevertheless, were above the values that point to lower career adaptability.

5.2.1.3 Personality and Career Adaptability

In this study, it was found that TED graduates with agreeableness as a dominant personality trait had the highest values of curiosity and control (Those with neuroticism also had the highest values of control). TED graduates with conscientiousness personality trait had the highest scores of concern and confidence. On the other hand, those with openness personality trait had the lowest values of concern, those with extroversion had the lowest values of control while those with neuroticism personality trait had the lowest values of curiosity and confidence. All these findings had a direct link with the attributes that corresponded with the personality trait. This finding implies that there is a strong correlation between one's personality trait and career adaptability. That is, the attributes that characterize the personality of an individual informs the individual's ability demonstrate concern, control, curiosity and confidence.

5.2.2 Academic Factors and Career Adaptability

Under this section, this study incorporated such correlates as category of high school attended, year of graduation from university area of specialty and entry behavior in to university.

5.2.2.1 Category of High School Attended and Career Adaptability

TED graduates who went to private schools were found to have highest values of concern and confidence but lowest values of control. Graduates who went through sub-county schools were found to have highest values curiosity while those who went through national schools had the highest values of control. TED graduates who went through county schools had the lowest values of concern, curiosity and confidence. In general terms, graduates who went through sub-county schools were best adapted to their career followed by those who went through extra-county schools and then those who went through national schools. Those who went through private schools came the fourth and those graduates who went through county schools were the least adapted. The different learning environments created by the respective categories of schools were responsible for the fluctuation of the scores of career adaptability among the respondents.

5.2.2.2 Year of Graduation and Career Adaptability

Generally, career adaptability was found to increase with increase in the number of years the graduates had left the university. TED graduates who graduated in and before 2000 were highly adaptable as compared to their counterparts who graduated years later. This is because the graduates had the highest values of all the profiles of career adaptability. The scores of concern and confidence decreased continuously from TED graduate

trainers who had more than 20 years of experience in the field after they completed their undergraduate studies to those who had less than 10 years of experience after graduation. The students who graduated between had the lowest values of all the constructs of career adaptability apart from curiosity. Nevertheless, all TED graduates had scores that indicated that they had commendable level of career adaptability.

5.2.2.3 Area of Specialty and Career Adaptability.

TED graduates who pursued BCT had the highest values of control. Graduates who pursued ELT had the highest the highest values of confidence and curiosity. Graduates who pursued PMT had the highest values of concern but had the lowest values of curiosity. On the other hand, graduates who pursued MET had the lowest values of concern, control and confidence. Considering the overall scores, TED graduate trainers who pursued BCT had highest scores of career adaptability followed by those who pursued COS, ELT, PMT and MET respectively. This was attributed to their varied learning experiences in their areas of specialization as well as the nature of what they handle at their career places.

5.2.2.4 Entry Behaviour and Career Adaptability

In considering the influence of entry behaviour and career adaptability, this study found out that the higher the entry grade, the higher the career adaptability. This remains true, this study asserts, provided that no kind of prior training is undergone by someone or other professional upgrade as this is likely to uplift career adaptability of the graduate above those who had a better entry grade.

5.2.3 Quality of Training and Career Adaptability

In this third objective, this study delved into exploring such aspects as training time, availability of training resources and curriculum content as key aspects that inform quality of training.

In regard to training time, this study found out that the training time for TED graduates was insufficient to enable development of all-round graduates. However, respondents showed that the hours for theoretical learning of both pedagogical and specialization courses was enough.

Considering availability of training resources, this study found out that most graduates lacked enough instruments for practical and that the instruments were in poor condition and obsolete with regard to current technology in their areas of specialization. Moreover, such resources as textbooks, technical and academic staff were insufficient and this crippled proper and adequate development of the graduates.

In terms of curriculum content, this research study found out that the content was systematically arranged, inclusive of requisite skills but that it was unsure if the content was updated to suit the current market demands. This pointed that the content might have been properly designed and developed but it lacked sufficient manpower to bring into reality the desired graduates. It is good to note, however, that regardless of the challenges related to quality of training, TED graduates proved to have adjusted well to their various career tasks accordingly.

5.3 Conclusions

In a nutshell, the following conclusions were made: First, TED graduates, when considered across the selected correlates the means of career adaptability of TED graduate trainees were above 2.5 which revealed that the graduates have a career adaptability that is above average. The graduates are, therefore, better adapted to career. Secondly, non academic factors have either positive or negative influence on career adaptability of TED graduates in the sense that: 1) Poor family background provides best grounds that enhances career adaptability of an individual followed by rich background while middle class backgrounds breeds the least adapted graduates, 2) Male TED graduates are more adapted to career as compared to their female counterparts, 3) Dominant personality trait's associated attributes inform the constructs of career adaptability in which someone does well in. Thirdly, academic factors also influence career adaptability either in a positive or negative way in the sense that: 1) The diverse contexts offered by Kenyan high schools influence the adaptability of the students whereby the tougher and competitive the environment, the better the development of the skill of career adaptability, 2) The more the years an individual stays after graduation, the better the individual develops in terms of career adaptability, 3) Area of specialization provides different experiences that influence career adaptability of graduates, 4) The higher the entry behaviour, the higher the career adaptability and vice versa provided that bridging or prior training is undertaken by an individual with lower entry behaviour. Finally, quality of training does not significantly influence career adaptability of TED graduate.

5.4 Recommendations

Following the findings that this study obtained the following are the recommendations:

1. Each category of school in Kenya should identify the profile of career adaptability that is not properly developed in the learners and develop strategies to improve in the areas of interest in order to develop all-round learners who are seasoned properly in all areas of career adaptability.
2. Despite the current efforts to empower girl-child (women) in Kenya, there is need to continue providing more exposure opportunities to them to enhance their career adaptability. The move to dispel negative cultural perceptions about women should be taken a step ahead.
3. Universities should update their curricula, provide enough facilities and create equal opportunities for all students to expose them to sufficient learning experiences to enhance career adaptability.
4. Training time for TED graduates should be adjusted to five years to enable graduates acquire enough content for effective practice in their future career.
5. Training of TED students should be tailored towards inculcating both theoretical and practical skills to the graduates so that they can carry out practical activities at their work places more easily.

5.5 Suggestions for Further Study

This study focused on investigating the effect of selected correlates on career adaptability of Kenyan Technology Education graduates. From the findings obtained, the following suggestions were made for further research:

1. A comparative study should be conducted on graduates from engineering and affiliated courses alongside TED graduates to find out if they are better adapted as compared to TED graduates.
2. A research should be done to establish and validate a career adaptability scale form that is of Kenyan context so that future studies can overcome the invisible influence of linguistics and cultural influence on career adaptability in Kenya.
3. A comparative study should be done on career adaptability of TED graduates in various areas of specialization alongside their lecturers and technical staff so as to properly establish the link between them.
4. A study should be done to investigate the influence of various technical training institutions on career adaptability of their their trainers to enable development of various institutional strategies that can be put in place to improve trainers' career adaptability.

REFERENCES

- Adil, A.R & Khalid.A, (2016). An Introduction to Research Paradigms.
- Afridi, F.,Li, S.X, & Ren,Y. (2015). Social Identity and Inequality: The Impact of China's Hukou System. *The Journal of Public Economics*,123,17-19. doi.10.1016/j.jpubeco.2014.12.011
- Busacca, L.A. (2007). Career construction theory: A practitioner's primer. *Career Planning and Adult Development Journal*. Retrieved from http://findarticles.com/p/articles/mi_7494/is_200704/ai_n32232146/pg_2/?tag=skin_content.
- Bacanli, F. & Sarsikoglu, A.F (2021). Personality Traits as a Predictors of Career Adaptability of Young Youths. *Journal of Vocational Behaviour*, 50(1), 217-246.
- Buyukgoze-kavas, A. (2014). Validation of the Career Adapt-Abilities Scale-Turkish form and its relation to hope and optimism, 23(3), 125–132. <https://doi.org/10.1177/1038416214531931>.
- Buyukgoze-kavas, A., Duffy, R. D., & Douglass, R. P. (2015). Exploring links between Career adaptability, work volition, and well-being among Turkish graduates. *Journal of Vocational Behavior*, 90, 122–131. <https://doi.org/10.1016/j.jvb.2015.08.006>
- Clarke, M (2017).Rethinking Graduate Employability: The Role of Capital, Individual Attributes and Contexts. *Studies in Higher Education*, 1-15.
- Coetzee, Melinde & Harry, Nisha. (2014). Gender and hardiness as predictors of career adaptability: An exploratory study among Black call centre agents. *South African Journal of Psychology*. 45. 10.1177/0081246314546346.
- Commission of University Education Report (2019). *University Statistics for 2017/2018*.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.).
- Department for International Development (2017). *Youth Employment in Kenya. Literature Review*.
- Denzin, N. & Lincoln, Y (2021). Handbook of Qualitative Research. *British Journal of Education Studies*. 42(4): 409-410.

- Farah, S.A & Ali, H. A (2018). Causes of Unemployment among University Graduates: A Case of Garissa County. Kenya. *Open Journal of Economics and Commerce*. 1(1). pp 55 - 60.
- Ferreira,N. & Coetzee, M. & Masenge, A. (2013). Psychological Career Resources, Career Adaptability and Hardiness in Relation to Job Embeddedness and Organizational Commitment. *Journal of Psychology in Africa*. 23. 31-40. 10.1080/14330237.2013.10820591.
- Fikriye, S.A & Feride, B. (2021). Personality Traits As Predictors of Career Adaptability of Young Adults. *Cukurova University Faculty of Education Journal*. 50. 217-246. 10.14812/cufej.803614.
- Ghauri, P. and Gronhaug, K. (2010) *Research Method in Business Studies*. 4th Edition, Pearson, London.
- Griffin, B., & Hesketh, B. (2003). Adaptable behaviors for successful work and career adjustment. *Australian Journal of Psychology*, 55(2), 65-73.
- Guan, Y., Wang, F., Liu, H., Ji, Y., Jia, X., Fang, Z., Li, C. (2015a). Career-specific parental behaviors, career exploration and career adaptability: A three-wave investigation among Chinese undergraduates. *Journal of Vocational Behavior*, 86, 95–103. <http://dx.doi.org/10.1016/j.jvb.2014.10.007>
- Haibo Yu, Yiming Dai, Xiaoyu Guan & Wenjin Wang' (2019). Career Adapt-Abilities Short Form (CAAS-SF): A Validation Across Three Samples in the Chinese Context. *Journal of Career Assessment*. 20(10), 1-22.
- Han, H., & Rojewski, J. W. (2015). Gender-Specific Models of Work-Bound Korean Adolescents' Social Supports and Career Adaptability on Subsequent Job Satisfaction, 42(2), 149–164. <https://doi.org/10.1177/0894845314545786>.
- Harris,L. (1969). *Review of Educational Research*. American Educational Research Association. Washington DC.
- Hartung, P.J. (2007). Career construction: Principles and practice. In K. Maree. (Ed.), *Shaping the story: A guide to facilitating narrative counselling* (pp. 103-120). Hatfield: Van Schaik. 115
- Hartung, P.J. (2009). Unity and relevance: Envisioning career counselling future in higher education. *South African Journal of Higher Education* 23(3), 459-469.

- Hartung, P.J. (2010a). Career assessment: using scores and stories in life designing. In K. Maree (Ed.), *Career counselling – methods that work* (pp. 1-10). Cape Town: Juta & Company.
- Havenga, M. (2012). *The relationship between career adaptability and academic achievement in the course of life design counselling* (Unpublished master's dissertation). University of Pretoria, Pretoria, South Africa.
- Hirschi, A. (2009). Career adaptability development in adolescence: Multiple predictors and effect on sense of power and life satisfaction. *Journal of Vocational Behavior*, 74, 145–155.
- Hirschi, Andreas. (2012). The career resources model: An integrative framework for career counsellors. *British Journal of Guidance & Counselling - Brit J Guid Couns.* 40. 1- 15. 10.1080/03069885.2012.700506.
- Holzman, P.S. (2023). *Personality, Its Nature and Perspectives*. Retrieved from www.britannica.com.
- Hunt, S. (2017). *Kenya Landscape Analysis*. Brighton: Institute of Development Studies.
- Ikinya, S.(2019). *Technical Engineering Training and Employability in Kenya: Focus on Thika Technical Training Institute and Meru National Polytechnic*. Doctorate Dissertation. Catholic University of Eastern Africa.
- Işık, E., Yeğın, F., Koyuncu, S., Eser, A., Çömlekciler, F., & Yıldırım, K. (2018). Validation of the career adapt-abilities scale–short form across different age groups in the Turkish context. *International Journal for Educational and Vocational Guidance*, 18, 297–314.
- Ito, J. K., & Brotheridge, C. M. (2005). Does Supporting Employees' Career Adaptability Lead to Commitment, Turnover, or Both? *Human Resource Management*, 44(1), 5–19. <https://doi.org/10.1002/hrm.20037>
- John, O.P., Robins, R.W., & Pervin, L.A (2008). *Handbook of personality psychology: Theory and Research* (3rd Ed.). Guilford Press. New York.
- Kabare, Karanja & Mukulu, Wainaina & Catherine (2014). Determinants of Employee Adaptability to Transformational Change in Commercial in Nairobi, Kenya: Empirical Review. *International Journal of Academic Research in Business and Social Sciences*. 4. 10.6007/IJARBS/v4-i10/1204.

- Kim, H.K. & Kim, Y.H (2022). Older Workers' Career Adaptability and Career Success. *Baltic Journal of Management*, 17(2), 192-205. <https://doi.org/10.1108/BJM-06-2021-0225>
- KIPPRA (2020) .Kenya Economic Report .Creating an Enabling Environment for Inclusive Growth in Kenya.Retrieved from <http://www.kippira.org>.
- Knasel, E.G., & Super, D. E. (1981). Career Development In adulthood: Some Theoretical Problems and a Possible Solution. *British Journal of Guidance and Counselling*, 9, 194-201. <https://doi.org/10.1080/03069888108258214>.
- Kumar, R. (2011) *Research Methodology: A Step-by-Step Guide for Beginners*. 3rd Edition. Sage, New Delhi.
- LeCompte, M. D., & Preissle, J. (1993). *Ethnography and Qualitative Design in Educational Research* (2nd ed.). New York: Academic Press.
- Leedy, P.D. and Ormrod, J.E. (2005) *Practical Research: Planning and Design*. Prentice Hall, Upper Saddle River, NJ.
- Liu, J.,McMahon, M., & Watson,M. (2015). Parental Influence on Mainland Chinese Children's Career Aspirations: Child and Parental Perspectives. *International Journal of Educational and Vocational Guidance*,15(2), 131-143. doi.10.1007/s12187-011-9131-5
- Maggiore, C., Johnston, C. S., Krings, F., Massoudi, K., & Rossier, J. (2013). The role of career adaptability and work conditions on general and professional well-being. *Journal of Vocational Behavior*.
- Maggiore, C., Rossier, J., & Savickas, M. L. (2017). Career Adapt-Abilities Scale–Short Form (CAAS-SF): Construction and Validation. *Journal of Career Assessment*, 25(2), 312– 325. <https://doi.org/10.1177/1069072714565856>.
- Merino-Tejedor, E., Hontangas, P. M., & Boada-Grau, J. (2016). Career adaptability and its relation to self-regulation, career construction, and academic engagement among Spanish university graduates. *Journal of Vocational Behavior*, 93, 92–102. <http://dx.doi.org/10.1016/j.jvb.2016.01.005>.
- Mugenda, Q.M. and Mugenda, A.G. (2009) *Research Methods: Quantitative and Qualitative Approaches*. ACTS, Nairobi.

- Najoli, E. K. (2019). The effectiveness of witted programme on enrollment of women in technical and vocational education and training (TVET). *EURASIA Journal of Mathematics, Science and Technology Education*, 15(3), em1682.
- Nason, B. (2019). Youth Unemployment among Graduates of Tertiary Institutions in Kenya. *African Journal of Technical and Vocational Education and Training*, 4(1),84-93. Retrived from <https://afritvet.org/index.php/Afritvet/article/view/84>
- National Media Group (2021).Joblessness among graduates in engineering courses.
- Nilforooshan, Parisa & Salimi, Samaneh. (2016). Career adaptability as a mediator between personality and career engagement. *Journal of Vocational Behavior*. 94. 10.1016/j.jvb.2016.02.010.
- Niu, Y. (2020). Improving the employability of mature workers: Career learning. In C. Hughes (Ed.), *Strategies for attracting, maintaining, and balancing a mature workforce* (pp. 28– 60). Business Science Reference/IGI Global. <https://doi.org/10.4018/978-1-7998-2277-6.ch002>
- Ngure, S. (2015). An Empirical Evaluation of Technical, Vocational, Education and Training (TVET) Processes in Kenya. *Advances in Social Sciences Research Journal*, 2(12), pp. 159-173.
- Ntarangwe, M., Asatsa, S. & Ndung'u, E.M.(2021).Correlates of Career Adaptability among Academic Staff in Selected Universities in Nairobi County, Kenya.The Catholic University of Eastern Africa.
- Nurten K.O., & Oya, G. (2017). The Factors Contribute to Career Adaptability of High-School Students. *Eurasian Journal of Educational Research*. 2017. 183-198. 10.14689/ejer.2017.67.11.
- Nyangweso, J., Maiyo, J. & Kati, R. (2019) .Effect of Secondary School Categorization on Value Addition in Public Secondary Schools Students in Kenya. *Journal of Education and Practice*.10(33), 70-75.
- Olsson, D.N.,Gericke J. & Boeve-de P. (2022) The effectiveness of education for sustainable development revisited – a longitudinal study on secondary students' action competence for sustainability, *Environmental Education Research*, 28:3, 405- 429, DOI: [10.1080/13504622.2022.2033170](https://doi.org/10.1080/13504622.2022.2033170)

- Oncel, L. (2014). Career adapt-abilities scale: Convergent validity of subscale scores. *Journal of Vocational Behavior*, 85(1), 13–17. <https://doi.org/10.1016/j.jvb.2014.03.006>
- Pang, L. , Wang, X. , Liu, F. , Fang, T. , Chen, H. and Wen, Y. (2021) The Relationship between College Students' Resilience and Career Decision-Making Difficulties: The Mediating Role of Career Adaptability. *Psychology*, 12, 872-886.
- Robert, N. (2006). *Theories of Scientific Method: An Introduction*. Stocksfield: Acumen Publishing. Edited by Howard Sankey.
- Robertson, I.,(2018) Personality and resilience: Domains, facets, and non-linear relationships. *International Journal of Stress Prevention and Well-Being*, 2. 3. ISSN 2397-7698
- Rossier, J., & Savickas, M. L. (2017). Career adapt-abilities scale–short form (CAAS-SF): Construction and validation. *Journal of Career Assessment*, 25(2), 312–325. <https://doi.org/10.1177/1069072714565856>
- Santilli, Sara & Nota, Laura & Ginevra, Maria & Soresi, Salvatore. (2014). Career adaptability, hope and life satisfaction in workers with intellectual disability. *Journal of Vocational Behavior*. 85. [10.1016/j.jvb.2014.02.011](https://doi.org/10.1016/j.jvb.2014.02.011).
- Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 42–70). Hoboken, NJ: John Wiley.
- Savickas, M. L. (2013). Career construction theory and practice. In R. W. Lent & S. D. Brown (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 147–183., 2nd ed.). Hoboken, NJ: John Wiley.
- Savickas, M. L., & Porfeli, E. J. (2012). Careers adapt-abilities scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661–673. <https://doi.org/10.1016/j.jvb.2012.01.01>.
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management (IJARM)*, 5, 18-27.

- Teixeira, M. A. P., Bardagi, M. P., Lassance, M. C. P., Magalhães, M. O., & Duarte, M. E. (2012). Career Adapt-Abilities Scale—Brazilian Form: Psychometric properties and relationships to personality. *Journal of Vocational Behavior*, 80(3), 680-685.
- Tessa, B, Kimenyi, M & Sandefur (2013). Public Provision of Education in Kenya, *Journal of African Economies*. 22(1) pp.39-56.
- Tian, Y., & Fan, X. (2014). Adversity quotients, environmental variables and career adaptability in student nurses. *Journal of Vocational Behavior*, 85(3), 251–257. <https://doi.org/10.1016/j.jvb.2014.07.006>.
- Tomlinson, M.(2012). Investing in the Self: Structure, Agency and Identity in Graduates' Employability. *Education, Knowledge and Economy*, 4(2),77-88.
- Tran, T.T (2019). Graduate Employability: Beyond the Skill Agenda <https://doi.org/10.4324/9780429058899-14>.
- Van Vianen, A. E. M., Klehe, U.-C., Koen, J., & Dries, N. (2012). Career adapt-abilities scale— Netherlands form: Psychometric properties and relationships to ability, personality, and regulatory focus. *Journal of Vocational Behavior*, 80(3), 716-724.
- Wainaina, Lawrence & Iravo, Mike & Waititu, Anthony. (2014). Workplace Spirituality as a Determinant of Organizational Commitment amongst Academic Staff in the Private and Public Universities in Kenya. *International Journal of Academic Research in Business and Social Sciences*. 4. 10.6007/IJARBS/v4-i12/1362.
- Walden, C. M.(2020). Exploring Relationships Among Career Adaptability, Work Engagement, and Career Intentions of New Graduate Nurses (Doctoral Dissertation, East Carolina University). Retrieved From The Scholarship. ([Http://Hdl.Handle.Net/10342/8633](http://hdl.handle.net/10342/8633).)
- Wamalwa, F.M. & Burns,J. (2017). Private Schools and Student Learning Achievements in Kenya. *Economic Research South Africa*. pp.689. Retrieved from <https://econrsa.org>
- Watson, M., & McMahan, M. (2009). Career counselling in South Africa higher education: Moving forward systematically and qualitatively. *South African Journal of Higher Education*, 23(3), 470-481.

- Watts, A.G. (1996). Toward a policy for lifelong career development: A transatlantic perspective. *The Career Development Quarterly*, 45, 41-53.
- Wiwik, S. & Seger, H (2017). Career Adaptability: The Influence of Readiness and Adaptation Success in the Education Context: A Literature Review. *Advances in Social Science, Education and Humanities Research*, volume 133.
- World Bank. (2016). Jobs for Youth. Report No. 101685-KE. <http://pubdocs.worldbank.org/en/873301466715415004/Kenya-Jobs-for-Youth.pdf>
- Yip C, (2016). Legal and ethical issues in research. *Indian Journal of Anaesthesia*.60(9):684-688. doi: 10.4103/0019-5049.190627.
- Yu, H. & Yiming, Dai & Guan, Xiaoyu & Wang, Wenjin. (2019). Career Adapt-Abilities Scale–Short Form (CAAS-SF): Validation Across Three Different Samples in the Chinese Context. *Journal of Career Assessment*. 28. 106907271985057. 10.1177/1069072719850575.
- Zacher, H. (2014). Career adaptability predicts subjective career success above and beyond personality traits and core self-evaluations. *Journal of Vocational Behavior*, 84, 21–30.
- Zammiti, A.; Magnano, P.; Santisi, G (2020). “Work and Surroundings”: A Training to Enhance Career Curiosity, Self-Efficacy, and the Perception of Work and Decent Work in Adolescents. *Sustainability* 2020, 12, 6473. <https://doi.org/10.3390/su12166473>.
- Zhou, M., & Lin, W. (2016). Adaptability and life satisfaction: The moderating role of social support. *Frontiers in Psychology*, 7, Article 1134. <https://doi.org/10.3389/fpsyg.2016.01134>

APPENDICES

Appendix I: Introductory Note To Respondents

Dear Respondent,

I am Douglas Odhiambo, a post-graduate student at the University of Eldoret. I am currently pursuing a Master of Education Degree in Technology Education (Building and Construction Technology). I am conducting an academic research on "**Investigation of Career Adaptability of Kenyan Technology Education Graduates by Use of Selected Correlates**".

I hereby kindly request for your participation in this research study. The findings and recommendations established in this investigation will provide key information on how TED graduates are adapted to career as well as measures to be put in place by Kenyan Universities and affiliated stakeholders in order to uplift TED as a course.

Kindly respond to the questions appropriately and to the best of your knowledge. The information you will provide was held confidential.

The research study is purely academic and therefore no monetary reward was attached to participation.

Yours sincerely,

Odhiambo Douglas Okuku

(SEDU/TED/M/017/21)

CONSENT FORM

I have read and understood the introductory letter above. I accept to participate as a respondent in this study.

Signature:.....Date:.....

Appendix II: Questionnaire for TED Graduates

SECTION A: PERSONAL DATA

Please take some time and share your personal information under this section. Confidentiality of this data is guaranteed.

1. How old are you? Please indicate the age bracket within which you belong.

20-29 years []	50-59 years []
30-39 years []	60-69 years []
40-49 years []	70-79 years []
2. What is your marital status? Married [] Not married []
3. How long have you been working in TVET?
.....
4. a) Briefly share the nature of work you are currently handling at your current workstation.
.....
.....
.....
- b) Is your current work related to your area of training?
.....
.....
.....

SECTION B: NON-ACADEMIC FACTORS

Please respond by marking (using ✓) in the brackets corresponding to what applies to you.

PART I: FAMILY BACKGROUND.

1. How much, in approximate terms, does your family earn in a month? Please mark the applicable range below.

Ksh 0- 23,670	[]
Ksh 23,671-119,999	[]
Ksh 120,000 and above	[]

Share briefly how your family background has affected you in terms of being concerned about your current career, having curiosity to pursue further studies, controlling yourself at career and/or exercising confidence when performing tasks at work.

.....
.....
.....
.....
.....

PART II: GENDER

1. What's your gender? Male [] Female [].

2. Please share, in brief, how your gender has affected you in terms of being concerned about your current career, having curiosity to pursue further studies, controlling yourself at career and/or exercising confidence when performing tasks at work.

.....
.....
.....
.....
.....

PART III: PERSONALITY

1. Which of the following personalities do you belong to? Please mark the one fit for you. Be as genuine as possible.
 - A. Agreeableness (trustworthy, cares for others, kind, flexible and can accommodate others, polite) ()
 - B. Conscientiousness (honest and hardworking, like following rules and prefer living in a clean environment) ()
 - C. Extroversion (social, talkative, love fun and has high emotional expressiveness) ()
 - D. Neuroticism (moody, emotional, and easily gets irritated) ()
 - E. Openness (imaginative, insightful, curious and always eager to learn) ()
2. In your opinion, how has your personality impacted you in terms of being concerned about your current career, having curiosity to pursue further studies, controlling yourself at career and/or exercising confidence when performing tasks at work?

.....

.....

.....

.....

SECTION C: ACADEMIC FACTORS

PART I: CATEGORY OF HIGH SCHOOL ATTENDED.

1. a) Which category of high school did you attend?

Sub-county/District []	Extra-county []
County []	National. []
Extra-county []	Private. []

a) Please share briefly how your former high school has helped you to develop the following:

i. Being confident when carrying out tasks

.....
.....

Controlling yourself

.....
.....

ii. Desiring to pursue further your studies

.....
.....

iii. Being concerned about your current career

.....
.....

PART II: YEAR OF GRADUATION

1. In which year did you graduate from university (For undergraduate level)?

.....

2. Is your current job related to your area of training? Yes [] No []

3. a. Have you been changing jobs? Yes [] No []

If yes, how frequent have you been shifting from one job/type of work to another?

.....

Share briefly by indicating the range of years you were staying at each job.

.....

.....

b. what caused change of job/type of work?

- Promotion? []
- Search for greener pastures? []
- Other reasons. (Specify)

.....

4. Please respond to the following:

a) Over your years of work, do you find yourself becoming more curious in exploring opportunities in your area of specialization? Yes () No () Can't tell ()

b) Do you still struggle to carry out your routine career tasks?

Yes () No () Can't tell()

c) After completing your undergraduate studies, have you continued to seek more knowledge to uplift your career skills?

Yes () No () Can't tell ()

d) Has your ability to plan on how to achieve your career goals developed?

Yes() No () Can't tell ()

PART III: AREA OF SPECIALTY

1. In which of the following areas of technology education did you specialize?

- Building and Construction Technology []
- Computer Studies []
- Electrical and Electronics Technology. []
- Mechanical Technology []
- Power Mechanics Technology []
- Others [] Specify.....

PART IV: ENTRY BEHAVIOR

1. Please indicate the overall grade you attained at high school level.

- | | |
|-----------------|-----------------|
| A(plain) [] | B(plain) [] |
| A-(minus) [] | B-(minus) [] |
| B+(plus) [] | C+(plus) [] |

2. Please mark the class of undergraduate degree achieved at university level.

- | |
|---|
| First Class Honors [] |
| Second Class Honors- Upper Division [] |
| Second Class Honors-Lower Division [] |
| Pass [] |

SECTION C : QUALITY OF TRAINING

Please give your views on quality of training of TED graduates in Kenyan universities in the questions below.

PART I : TRAINING TIME

1. a) What is your view on the time taken to train in TED course? Is it enough for quality training?

- Yes [] No [] don't know []

b) If no, how long do you suggest that the course should take?

- 5 years []

6 years []

7 years []

Other duration

2. (a) Please share your views on time allocated for TED courses. Are the credit hours assigned for specialization/technical courses enough?

Yes () No () Don't know ()

If no, explain

.....
.....
.....

Are the credit hours allocated for pedagogical courses enough?

Yes() No() Don't know ()

Briefly share your views.

.....
.....
.....

(b) Is time allocated for practicals in technical courses enough to help a student grasp the skills of using the equipment?

YES() NO() Don't know ()

If no, briefly share your views on what should be done.

.....
.....

(c) In what manner has the time allocated for courses impacted your efficiency and ease of practicing various tasks at work?

.....
.....
.....

(d) Did the time allocated for theory lessons allow you to explore sufficient content that relate to your area of specialty? Briefly share

.....

(e) Did the allocated time for training help you develop the concept of proper planning and organization of self at your place of work?

.....

f) Did the stipulated time of training enable you to develop the enough competencies in your area of specialty so as to be independent of self in terms of executing assigned duties at place of work or you still needed colleagues to help you accomplish some tasks at workplace at some point? Share briefly.

.....

PART II: AVAILABILITY OF TRAINING FACILITIES

1. Briefly give your views on the adequacy of training facilities in your area of specialization in the University you attended.

Adequate () Moderately Adequate () Not Adequate (), Facilities Not Available ()

Other (specify).....

a) Are training facilities (for practical) up-to-date/modern as per the current trends in your area of specialization ?

Yes () No() Don't Know ()

If no, briefly share what is lacking.

.....

(b) Are training facilities (for theories) sufficient for the learners?
 Yes () No () Don't Know ()

Explain briefly.

.....

Are human resources (lecturers and technicians) enough?

Yes () No () Don't Know () Explain briefly

.....

Are teaching and learning resources (e.g., classrooms and textbooks) enough?

Yes () No () Don't Know ()

Briefly explain

.....

In your view, how has the facilities you used in training impacted:

- Your competency in conducting hands-on and theoretical tasking at your workplace? (confidence)

.....

- Your ability to participate in research and innovation activities and forums? (curiosity)

.....

- Your ability to prepare for career changes in the future? (concern)

.....

- Your ability to solve emerging problems at your place of work? (confidence)

.....

- Your ability to control practical lessons effectively? (control)

.....

- You in terms of learning new skills? (confidence)

.....

PART III: TED CURRICULUM CONTENT.

1. Briefly critique the Technology Education curriculum.

- a) Is the theoretical content updated, well-organized and sufficient to meet the needs of the contemporary corporate world?

.....

Does the curriculum offer opportunities for learners to gather enough skills to efficiently control equipment in the laboratory or workshop of your area of specialty ?

.....

- b) Does the curriculum content offer enough content for one to be able to practice the diverse roles at work?

Yes () No () Don't know ()

If no, briefly share what is missing in the curriculum content that makes practicing various roles at work to be difficult

.....

2. Share your views on what should be incorporated into the TED curriculum to overcome the challenges graduates face when practicing in various capacities at workplace.....

.....

3. When you left campus, had you known the educational and vocational opportunities that pertain your career?..... How?

.....
.....

4. How did curriculum content prepare you on how to perform tasks efficiently?

.....
.....
.....

SECTION D: CULTURAL INFLUENCE

1. In which setting did you grow up?

Rural [] Urban []

2. From which county have you grown?

3. What is your tribe?

4. How does your cultural background influence;

a) Your ability to demonstrate confidence while handling difficult situations?

.....
.....

b) Your efforts to show curiosity by embracing diversity and exploring various opportunities available in your area of specialization? (Does it prevent you from having positive attitude towards change and other people's views?)

.....
.....
.....

c) How you practice control in terms of being responsible when executing duties at workplace?

.....
.....
.....

b. Are there any cultural hindrances that prevent you from being concerned with planning for your future (advancing to higher levels of career or advancing your studies)?

Yes () No () Not sure ()

Briefly explain.

.....
.....

SECTION E: CAREER ADAPTABILITY. (CAAS-SF)

Introduction

Different people use different strengths to build their careers. No one is good at everything, each of us emphasizes some strengths more than others. Using the scale below, please rate how strongly you have developed each of the following abilities. Use ✓ mark to indicate your strength in each ability.

Ability	Not Strong (1)	Somewhat Strong (2)	Strong (3)	Very Strong (4)	Strongest (5)
1. Thinking about what my future was like.					
2. Preparing for the future.					
3. Becoming aware of educational and vocational choices that are in line with my career					
4. Making decisions by myself.					
5. Taking responsibility for my actions.					
6. Counting on myself.					
7. Looking for opportunities to grow as a person.					
8. Investigating options before making a choice.					
9. Observing different ways of doing things.					
10. Taking care to do things well.					
11. Learning new skills.					
12. Working up to my ability.					

Scoring Key**Concern= Items 1-3****Control= Items 4-6****Curiosity= Items 7-9****Confidence= Items 10-12****Guide**

Each dimension of career adaptability was measured separately by adding the scores (strengths) for the corresponding items and obtaining the mean of the scores.

2. Please fill this table to indicate the number of trainers (who are university graduates) who have been employed by PSC from 2019 up-to-date.

Department	Total number of trainers employed by PSC from 2019 to date	Number of those university graduates who pursued:
		Technology Education Engineering..... Affiliated courses.....

3. Please comment on how technology education graduates (Trainers who graduated in technology education courses);

a) perform their duties of teaching trainees in class/lecture rooms? Use the performance of trainees in recent exams to comment.

.....

b) handle practical lessons. Use their proficiency in handling the diverse equipment in the workshop and how their trainees perform in the practical tests in KNEC exams to comment on the trainers.

.....

c) participate in research and innovation activities initiated by the institute and those initiated by external bodies or institutions.

.....

d) demonstrate leadership skills when assigned positions of leadership by management.

.....

e) help the administration in ensuring proper delivery of services (do they participate in pushing for reforms and helping management to design and develop new policies to improve the institution's performance?). Share briefly.

.....

f) are concerned to improve the reputation of the institution by coming up with production units and projects that can attract international bodies to help in funding construction of more facilities in the institution.

.....

.....

.....

g) handle classes in terms of training and administering internal tests (are they efficient and effective in this area?). Briefly explain.

.....

.....

.....

h) show effort to embrace new equipment, tools and trends in training and trends in institutional operations. Are they positive and confident to adopt to new features in the institution? Briefly explain.

.....

.....

.....

4. How, in your view, do graduates who pursued Technology Education at their undergraduate compare with their counterparts who pursued engineering and other affiliated courses in terms of:

a) Demonstrating their control skills when handling practical and training activities.

.....

.....

b) handling theory lessons

.....

.....

c) exercising leadership and performing leadership obligations when delegated to act in various capacities

.....

.....

.....

d) scope of the courses they can comfortably teach in their area of specialty.

.....

.....

.....

.....

e) operating machines and equipment at workshop and during outdoor practical.

.....
.....
.....
.....

f) embracing new roles and changes in roles and responsibilities at work.

.....
.....
.....

g) participating in decision-making processes at various levels within the institution and beyond.

.....
.....
.....

h) preparing professional documents.

.....
.....
.....

SECTION C: NON-ACADEMIC FACTORS

1. In your opinion, how do you think:

a) Family background of TED graduate trainers has affected them in terms of

- Preparing professional documents on time?

.....
.....
.....

- Being responsible when carrying out various tasks assigned by management?

.....
.....
.....

- Participating in research and innovation activities at workplace

.....
.....
.....

- Seeking opportunities to grow through advancing studies?

.....
.....
.....

- Performing assigned responsibilities efficiently and effectively?

.....
.....
.....

- Coping up with changes in roles at workplace?

.....
.....
.....

b) Gender of TED graduate trainers has affected them in terms of

- Remaining focused and positive at workplace despite facing challenges?

.....
.....
.....

- Carrying out career tasks professionally?

.....
.....
.....

- Taking care to make right choices and responsibly executing career tasks?

.....
.....
.....

- Being curious about opportunities to grow at workplace?

.....
.....
.....

- Endeavoring to pursue further studies?

.....
.....
.....

- Participating in problem-solving interventions when challenging situations arise?

.....
.....
.....

c) Personality of TED graduate trainers has impacted them in terms of

- Planning themselves (in terms of preparing professional documents properly) and completing assigned tasks on time?

.....
.....
.....

- Being accountable and handling tasks responsibly?

.....
.....
.....

- Dealing with challenges in their line of work?

.....
.....
.....

- Being curious in their area of profession and seeking further studies?

.....
.....
.....

- Demonstrating the passion to serve in higher rank?

.....
.....
.....

- Coming up with solutions to emerging issues at place of work?

.....
.....
.....

**SECTION D: MEASURES TO ENHANCE CAREER ADAPTABILITY OF
TED GRADUATES**

1. What, in your view, do you think;

a) needs to be done to enhance productivity and suitability of Technology Education graduates in practicing their career?

.....
.....
.....

b) should be incorporated in the training of Technology Education students/ graduates to enhance their adaptability to career? Recommend briefly.

.....
.....
.....

c) needs to be done to current university curriculum to nurture flexibility and adaptability of technology education students to the current trends at work?

.....
.....
.....

d) Any other comments?

.....
.....
.....


Appendix IV: Extracts From PSC Advert For TVET Trainers (2023)


S/No	Institution	County	Course/Area of specialization	Vacancy	Qualification
2	Chamasiri Technical & Vocational College		Automotive Engineering	1	HND
			Electrical Engineering {Power Option}	1	HND
			Building Technology	1	HND
			Civil Engineering	1	HND
			Information Communication Technology (ICT)	1	Degree
10	Bomet Central Technical and Vocational College		Information Communication Technology (ICT)	1	Degree
			Electrical Engineering {Power Option}	1	HND
			Building Technology	1	HND
13	Matili Technical Training Institute		Mechanical Production Engineering	2	HND
			Automotive Engineering	1	HND
			Building Technology	1	HND
			Automotive Engineering	1	HND
15	Bungoma North Technical and Vocational college		Building Technology	2	HND
			Mechanical Production Engineering	1	HND
			Automotive Engineering	1	HND
4	Shamberere Technical Training Institute		Mechanical Production Engineering	1	HND
			Automotive Engineering	1	HND
			Building Technology	1	HND
5	Navakholo Technical and Vocational College		Automotive Engineering	1	HND
			Electrical Engineering {Power Option}	1	HND
			Civil Engineering	1	HND
5	Wanga Technical and Vocational College		Building Technology	1	HND
			Land Survey	1	Degree
			Civil Engineering	1	HND
			Mechanical Production Engineering	1	HND
5	Khwisero Technical & Vocational College		Automotive Engineering	1	HND
			Electrical Engineering {Power Option}	1	Diploma
			Building Technology	1	Diploma
6	Kipsinende Technical Training Institute		Automotive Engineering	1	HND
			Building Technology	1	HND
			Civil Engineering	1	HND

6	Kiambu Institute of Science and Technology		Automotive Engineering	1	HND
			Welding and fabrication	1	Diploma
			Electrical Engineering {Power Option}	1	HND
			Building Technology	1	HND
			Civil Engineering	2	HND
7	Ndia technical and vocational college	Kirinyaga	Automotive Engineering	1	Diploma
			Electronics Engineering	1	Diploma
			Building Technology	1	Diploma
7	Kirinyaga Central Technical and Vocational College		Building Technology	1	Diploma
			Civil Engineering	1	HND
			Information Communication Technology (ICT)	1	Degree
			Electrical Engineering {Power Option}	1	Diploma
10	Masinga Technical and Vocational College		Automotive Engineering	1	HND
			Building Technology	1	HND
			Catering and Accommodation	1	Degree
10	Mwala Technical and Vocational College		Automotive Engineering	1	HND
			Electronics Engineering	1	Degree
			Building Technology	1	Diploma
118	Kiirua Technical Training Institute		Automotive Engineering	1	HND
			Electrical Engineering {Power Option}	1	HND
			Building Technology	1	HND
119.	Nkabune Technical Training Institute		Automotive Engineering	2	HND
			Building Technology	3	HND
			Plumbing	1	Diploma
127.	Uriki Technical and Vocational College		Electrical Engineering {Power Option}	1	HND
			Building Technology	1	HND
			Automotive Engineering	1	HND
140.	PC Kinyanjui Technical Training Institute		Mechanical Production Engineering	1	HND
			Automotive Engineering	1	HND
			Civil Engineering	1	HND
144.	Lang'ata Technical & Vocational College		Automotive Engineering	1	Diploma
			Electronics Engineering	1	Diploma
			Food and Beverage	1	Diploma
148.	Gilgil Technical and Vocational College		Building Technology	1	Diploma
			Information Communication Technology (ICT)	1	Diploma
			Electrical Engineering {Power Option}	1	HND

150.	Molo, Elburgon Technical and Vocational College		Electronics Engineering	1	Degree
			Automotive Engineering	1	HND
			Plumbing	1	Diploma
154.	Kaiboi Technical Training Institute		Building Technology	3	HND
			Mechanical Production Engineering	1	HND
			Automotive Engineering	1	HND
184.	Ugenya Technical and Vocational College		Electrical Engineering {Power Option}	1	HND
			Electrical Control and Instrumentation Engineering	1	Degree
			Electronics Engineering	1	HND
			Mechanical Production Engineering	1	HND
			Civil Engineering	1	HND
186.	Rarieda Technical and Vocational College		Mechanical Production Engineering	1	HND
			Electrical Engineering {Power Option}	1	Diploma
			Building Technology	1	Diploma
190.	Wumingu Technical and Vocational College		Civil Engineering	1	Degree
			Electrical Engineering {Power Option}	1	Diploma
			Information Communication Technology (ICT)	1	Diploma
200.	Kiminini Technical and Vocational		Automotive Engineering	2	HND
			Building Technology	1	Diploma


Appendix V : NACOSTI Permit


REPUBLIC OF KENYA
 National Commission for Science, Technology and Innovation


NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
 Date of Issue: 31/August/2022

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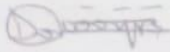
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