INDIVIDUAL AND INSTITUTIONAL DETERMINANTS OF TRAINEES' ENROLMENT IN PUBLIC TECHNICAL VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN NAKURU COUNTY, KENYA

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A Thesis Submitted in Partial Fulfilment of the Requirements for the Award of Degree of Doctor of Education in Curriculum Studies.

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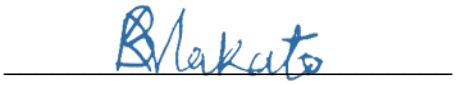
DECLARATION

This thesis research is my original work and has not been presented for award of a degree in any other university.



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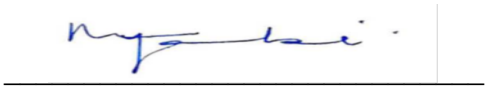

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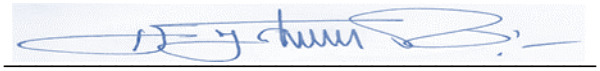

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DEDICATION

This study is dedicated to my beloved wife Miriam Mueni, my daughters Rodah Kaluki, Ruth Mwikali and Rose Mwende and my son Joseph Makato for their relentless support, morally and spiritually throughout my academic journey and the encouragement in all stages of my study. May the Almighty God shower you with blessings.

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ABSTRACT

One of the goals of being educated is to attain skills in preparation for world of work and become a self-reliant individual who can participate in nation building. Such skills are gained in tertiary institutions of learning and one of the growing fields is the Technical Vocational Education and Training institutions (TVETs). The purpose of this study was to investigate the individual and institutional determinants of trainee enrolment in public, TVETS in Nakuru County, Kenya. The study focused on the influence of entry behaviour based on grades scored in secondary examination, influence of socioeconomic status of trainees, influence of courses on offer in the TVETs and the influence of trainee's attitudes on enrolment in the TVETs in Nakuru County. This research is based on the Social Learning Theory of Career Decision Making (SLTCDM) by Krumboltz (1976). The theory focuses on developing career readiness through implementation of learning theory in school-to-work programs. This study employed descriptive survey research design. The sample size consisted of 12 TVETs, 30 trainers and 331 trainees drawn from the target population of 24 public TVETs, 150 trainers and 2385 trainees from entire Nakuru County by random sampling. TVET principals and trainers were sampled according to Gay and Airasian (2003) recommendation of 20% to 50% for small population while trainee sampling used the Cochran (1977) formula for large population. Data was collected by use of interview schedule for principals, questionnaires for trainers and trainees and document analysis. Quantitative data was analysed using SPSS software version 20 and summarized into frequency tables, percentages and standard deviations. Qualitative data was subjected to content analysis thematically with extraction of relevant information. The four hypotheses were tested at 0.05 percent significance level using regression and correlation coefficient. The findings of the correlation between grades scored in secondary examination and enrolment in TVETs showed that, Since P value is .210 > P=.05, HO_1 was rejected and the conclusion was that there was significant relationship between grades scored in Kenya Certificate of secondary Education (KCSE) and enrolment of trainees. The findings of the ANOVA test on socioeconomic status showed that, $H0_2$: Since p-value = 0.002< P-value = 0.05, $H0_2$ was rejected and the conclusion made was that there was significant mean difference between socioeconomic status and trainees' enrolment. $H0_3$ was accepted and the conclusion was that there is no significant mean difference between courses on offer and enrolment of trainees in public TVETs as determined by one-way ANOVA (F (1, 329) =0.303, P= 0.671). The analysis of findings showed that, the p-value = 0.3883>P-value = 0.05, hence $H0_4$ was accepted and concluded there is no significant mean difference between trainees' attitudes and enrolment of trainees in public TVETs. The findings led to the conclusion that; grades scored in KCSE determined enrolment in TVETs since it formed the basis for placement in tertiary institutions. Low socioeconomic status caused trainees to fail to enroll in TVETs or to dropout of training due to non-payment of fees. Courses on offer by TVETs could lead to increased or decreased enrolments in TVETs depending on extent of meeting trainees' needs. The researcher recommended that, TVETs should offer courses tailored for all grades from A to E and courses that meet needs of trainees and entire community. HELB loans and bursaries should be released before trainees reporting date to cushion the needy trainees of low socioeconomic status. TVETs to use success stories of their graduates to create good image and erase negative publicity and negative attitude.

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ABBREVIATIONS AND ACRONYMS

CBET **:** Competence Based Education and Training

CDACC **:** Curriculum Development Assessment and Certification Council

EFA **:** Education For All.

HELB **:** Higher Education Loans Board

ICT **:** Information Communication and Technology.

KICD **:** Kenya Institute of Curriculum Development.

KNQA **:** Kenya National Qualifications Authority

KNQF **:** Kenya National Qualifications Framework

MHEST **:** Ministry of Higher Education Science and Technology.

NACOSTI **:** National Commission of Science Technology and Innovation.

RoK **:** Republic of Kenya.

SPSS **:** Statistical Package for Social Sciences.

SDGs **:** Sustainable Development Goals

TVET **:** Technical and Vocational Education and Training.

TVETA **:** Technical and Vocational Education and Training Authority

WEF **:** World Education Forum

UK **:** United Kingdom

UN **:** United Nation.

UNESCO **:** United Nations Educational, Scientific and Cultural Organization.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Education and training are a key supporter of human capital development and an essential human right. The Sustainable Development Goals (SDGs) singled out instruction as key to advancement (UN General Assembly, 2015). This is essential because high quality human resource is a critical factor in organising a knowledge-based economy that must survive and thrive well in the globalising knowledge economy. Technical Vocational Education and Training (TVET) is capable of creating a flock of innovative and knowledgeable human resource through continuous education and training. Due to this aspect of creating innovative human resource for knowledge-based economy, an engine for industrialisation, TVETs have gained popularity in human resource development worldwide as nations strive to improve the capacity of TVET system in recognition of TVETs' vital role of developing relevant and competent human resource. High quality knowledge and skills have become the drivers of economic development and industrial competitiveness. Consequently, the United Nations Educational Scientific and Cultural Organization (UNESCO) and International Centre for Technical, Vocational Education and Training (TVET) lays emphasis on Sustainable Development Goals (SDGs) in transforming Education with a vision of ensuring inclusive and quality Education for all and promote lifelong learning (UNESCO, 2015). The SDG No. 4 on ensuring inclusive and equitable quality education and providing lifelong learning opportunities for all (UNESCO, 2018) embedded Vocational Training Education and requires member states, Kenya included to ensure access to TVET Education programmes, increase training for

youth to enable them to get decent jobs, start entrepreneurship outlets and become self-reliant.

This SDG No.4 (United Nations, 2015) target 4.3 seeks to ensure equal access for males and females to affordable and quality Technical, Vocational Education and Training by the year 2030. This is the reason for furthering education and training at different levels like Technical and Vocational Education and Training (National Planning Commission, 2013). Vocational education and training are one of the national development strategies in many nations. It makes an incredible effect on human asset improvement, efficiency and economic growth (Magaji, 2015). Technical, Vocational Education and Training (TVET) is an important aspect of the educational process, which emphasizes on the study of technologies, related sciences, acquisition of practical skills and attitudes and understanding knowledge related to occupations in various areas of economic and social life (Bakar & Dania, 2014). According to Omar and Rauf (2020), TVET is formal, non-formal and informal learning which provides young people with the required knowledge and skills in the world of work places and or leading to self-employment. The formal TVET setting is carried out in an organized manner within TVET institutions and this is where the individual and institutional determinants of enrolment come into play. Trainees are enrolled in courses that lead into a specific career like plumping, masonry, welding, tailoring and dress making among other career paths offered in TVETs.

Technical Vocational Education and Training (TVET) focuses on providing lifelong skills that meet the needs of the work place, industry and self-employment. A number of developed countries worldwide like Japan, Italy, Sweden Britain and China have funded TVETS heavily, an initiative that has increased chances of the youth who leave school to

enroll in the TVET Institutions (Carmago, Souza, Lima, & Soares, 2015). The funding of TVET institutions enables youths to enroll in TVET institutions since the burden of training expenses is reduced and parents or guardians who could not afford to enroll their children into post-secondary institutions turn to TVET. Japan, Sweden and Italy prioritized TVET by sufficiently subsidizing TVET institutions' improvement in terms of courses offered and subsidizing trainee payments. Courses offered is a institutional determinant of trainees' enrolment. Some courses offered are quite expensive in terms of the training requirements like tools and equipment which trainees are required to purchase. The government subsidy relieves parents and guardians of the burden of additional expenses and as a result, more trainees are attracted to enrol in the TVETs to pursue career in the desired fields where they would not have managed due to the high training expenses involved. In the United Kingdom (UK), all the four nations; England, Northern Ireland, Scotland and Wales have treasured the use of TVET to deliver a range of core skills and vocational courses particularly for learners aged 14 years to 18 years (British Council, 2014). TVET in UK is funded mainly by government bodies but also by income from fees and income earned from commercial activities (British Council, 2015). The fees paid by trainees' parents and guardians in TVETs if not subsidized may reduce enrolment in TVETs especially for trainees from poor socioeconomic background. This is the main reason why government bodies step in to offer support in the form of grants, bursaries and loans to trainees to enable them enrol and complete their studies. However, in developing countries there is inadequate funding for TVETS which limit school leavers from enrolling in TVETS UNESCO (2013) and Shaibu (2013), cited persistent challenges in enrolment in Technical, vocational Education in Nigeria due to poor

implementation policies in relation to TVET funding and resource distribution. A study carried out by Agrawal (2012) on challenges, status and labour market outcomes in India concerning technical vocational training found out that, low enrolment in TVETs and high dropout rates are as a result of the courses offered being too expensive in terms of the tools and equipments trainees are required to purchase in the duration of training or the courses being outdated due to technological changes and mismatch in skills required in the labour market. According to World Bank report of 2013, almost all training systems in Sub-Saharan Africa face challenge of inadequate Government funding and poor implementation policies that limit enrolment in TVET Institutions (World Bank, 2013) Kenya, being one of the developing countries has its share of challenges when it comes to TVET Education sector. Most trainees are less interested in occupations targeted by TVET courses since they are viewed as occupations of low status. Career path taken in TVETs is not highly regarded as lucrative since the trainees who enrol in TVETs are of low education status and poor performers in academics that culture the notion that there is nothing good that can come out of TVETs. According to Deebom and Zite (2017), in their study carried out in Asian countries on the role and status of TVETs found out that, the students barred from enrolling in other academic disciplines due to their low performance in the secondary level of education are the ones admitted in TVETs. This aspect causes prospective trainees of TVETs to have negative attitude towards TVETs in fear of being seen as low academic achievers. In addition to creation of negative attitude towards TVETs due to enrolment of low achievers, the notion that even the courses being offered and the careers the courses lead to are viewed in the

perspective of failures causing enrolment to reduce further since no one likes to be associated with failure.

A survey conducted by UNESCO (2012) in many African countries found out that, resources remain mainly with the parents and allocation of the resources is done according to priorities of the family. Low socio-economic status of parents or guardians causes students to fail to enrol in TVETs after leaving secondary school because they are expected to work and help with the family's subsistence. The parents insist that there is no money to support education after secondary unless a scholarship comes their way from well-wishers or government which normally targets bright students. The parents or guardians in every community look down on TVET, consequently bright students do not join TVET as their parents prioritize paying for academic oriented careers hence TVET becomes the dumping ground for those whose academic capacity is low. The courses on offer in TVETs are distributed based on interest of students. Consequently, if a TVET institution lacks such courses that are preferred, the enrolment is low. A study carried out in Nigeria by Okwelle and Deebom (2017) on challenges of TVETs in a developing country found out that, the Nigerians have negative perception towards technical education. This is evident since other graduates are placed ahead of TVET graduates in terms of employment opportunities and their salary scale is better. When it comes to enrolment, the low academic achievers are enrolled in TVETs. This aggravates the issue of negative attitude hence low enrolment in TVETs. Attitude of parents or guardians and the community at large if negative causes propective trainees to shun enrolling in TVETs and it could be worse if the enrolled trainees portray negative attitude towards the TVET

instututions. Attitude of trainees is an important individual determinant of trainees enrolment in the TVETs.

In their study in Tanzania on determinants for positioning and marketing TVET, Mulongo and Kitururu (2016) found out that, TVET is faced by various challenges which include mismatch between market demands and courses offered in TVETs coupled by poor attitude of parents or guardians, the enrolled trainees and the entire community which causes the prospective trainees to shelf the thoughts of enroling in TVETs which leads to low enrolment in the TVETs. Students who do not excel in O' Level secondary education are the ones who enrol in TVETs. Since TVETs are viewed as alternative education for those who perform poorly in academics, prospective trainees shy away hence low enrolment in TVETs. Careers for TVET graduates are not regarded highly and are not well paying like the academic oriented professions as a result, TVETs attract less trainees. Ramhari Lamichhane (2013), Nazier & Muhd (2019) and Okello (2011) all agree with Kitururu (2016) on the fact that TVET graduates are not well paid like academic oriented professionals hence the negative attitude that precipitates into low enrolment.

Studies done in Kenya on funding of TVETS by Nyikal, Asuma and Maronga (2015) have shown that TVETS in Kenya are faced by the challenges of limited funding. Kenya is grappling with the situation of few TVET Institutions, inadequate funding towards TVETS and perpetual low enrolment in TVETS. The country has continually enacted legal framework to address Education and Training in Kenya while putting more emphasis to TVETS. The constitution of Kenya 2010 and Kenya vision 2030 has placed

special demands on the tertiary sector, TVETS included, as the leading engine that the economy must rely upon to produce adequate members of middle level professionals needed to drive the economy towards the attainment of the vision. Kenya has experienced moderate growth in Tertiary Education on Training over the last 50 years however the country is yet to produce adequate and skilled middle level human resource to meet the demands for national development.

Along with explosion of information communication technology, significant developments that are demand driven are taking place all over the world and impacting on every aspect of human life, the Kenyan Government policies are made to prioritize the education sector in particular, by creating qualified workers and practitioners who would contribute to the development of other industries. Kenya in her vision 2030, aims at relying on education and training system to create a sustainable pool of highly trained human resource capital that underpins her national ambitions of being a knowledge, based economy. The objective of the Kenya vision 2030 is to make Kenya a newly industrializing, middle-income country providing high quality life for all her citizens by the year 2030. The Kenya vision 2030 social pillar bases its actualization of Kenya's journey towards prosperity on building of a just and cohesive society that enjoys equitable social development in a clean and secure environment. This quest is the basis of transformation in eight key social sectors, the first being education and training. Through the education and training social sector, Kenya aims at revising the curriculum of technical institutes to include more science and technology in the courses on offer and also increase funding to enable these institutions to support activities envisaged in the economic pillar (Government of Kenya, 2007). Increasing funding to TVETs is likely to

result in increased enrolment since the burden of bearing training costs by the parents and guardians will be eased indiscriminately even for those of high and low socioeconomic status. To achieve the social pillar of Kenya vision 2030, technological innovation and development is needed hence the need to place emphasis in TVET Education and training so as to produce a critical mass of well qualified technologists and engineers to spur Kenya's development agenda. National Educational Sector Support Program (NESSP) outlines the National Education Sector Strategic Plan (NESP) 2018-2022, with its elaborate causal chain that provides explicit linkages from program activities to the NESSP 2018- 2022 strategic objectives geared towards achievement of vision 2030. NESSP 2018-2022 adopts a thematic level planning by sub-sectors, TVET being one of these sub-sectors to carry out training and skills development in science, technology and innovation for achievement of vision 2030 (MOE-NESSP 2018-2022).

It is on this account that the education sector must be focused on efficient educational system that is able to create efficient, accessible, relevant and quality knowledge and skills that are in line with the labour market demands. In the light of vision 2030, Technical, Vocational Education and Training (TVET) is a key area that will play crucial role in transforming the country of Kenya into a middle-income economy and this raises concern when enrolment in TVETs remains perpetually low.

Kamau (2013) in his study on challenges affecting technical and vocational training in Kiambu County in Kenya found out that, TVET is seen as a sub-par training choice appropriate for the drop-outs and less astute students'. Due to this view, prospective trainee's parents and guardians have poor attitude towards TVET institutions hence unwilling to enrol their children in TVETs resulting in low enrolment. TVET education is

seen as low-quality education created for low achievers and failures in basic education. This has to a greater extent influenced the level of the enrolment by trainees in TVET curriculum programs offered in Kenya as a result of poor attitude. Poor attitude towards an institution of learning greatly influences enrolment negatively since would be trainees will shy away and would not wish to be associated with such institutions. Even after enrolling in the TVET institution as a trainee, they would not proudly identify themselves with the TVET (Agodini & Novak, 2014; Kamau, 2013). To improve on enrolment in TVET, the government of Kenya has taken a number of measures to enhance training. The Kenya 2013 TVET Act aims to strengthen the relevance and quality of TVET. This legal document has incorporated TVETs with the private sector (Republic of Kenya, 2013) so as to enable the courses on offer to prepare trainees with skills and competencies needed in the job market and also to link TVET graduates with prospective employers. This move was taken due to expertise gaps identified in TVET educational programs and projects, which impacts negatively on the enrolment of learners in TVET curriculum programs.

Kenya, in her Vision 2030, has reserved TVET institutions to assume a key role in the human resource development through the social, economic and political pillars of the Kenya Vision 2030, which recognized TVET to drive her envisaged development agenda. The constitution of Kenya 2010, section (2) - 9 placed TVET institutions under county governments empowering them to take charge of the institutions while the TVET Bill 2012 contains collection of lawful structure in the TVET part and accommodates the foundation of a TVET Authority (TVETA) to supervise the TVET framework. The National Policy for Vocational Training Centres (MoEST, 2014) notes that, vocational

education and training is an investment with significant social rate of returns. The Sessional Paper No.1 of 2019, a Policy Framework for Reforming Education and Training for Sustainable Development in Kenya fortified the National Skills Training Strategy and the modification of the legitimate system for TVET Bill whose point was to reinforce the components for the execution of the essential TVET reforms (Republic of Kenya, 2019). These TVET reforms are expected to change the image of TVET to attract trainees and increase enrolment which in turn would result in a large number of human resource being trained.

These legal documents ensure TVET operations are streamlined to equip trainees with necessary skills. Ismail (2010) in his study on relationship between attitude and enrolment in vocational programs found that, attitude, influences enrolment since students with good attitudes towards the courses on offer in TVETs did well in their examinations. In Chapter Eleven of the constitution of Kenya 2010, (Devolved Government of the Constitution of Kenya), gaps have been identified in devolved governance that TVET institutions could exploit on the basis of the functions of the county government as outlined in the fourth schedule of the constitution. Particularly TVET institutions could fill the gaps in training for devolved governance in Agriculture, natural resources management, county transport and public works, trade development and regulation and home craft centres. The operationalization of the devolved government as per the constitution of Kenya 2010 requires well trained human resources in these areas and these human resources do not have to be trained in the universities. The county government, through concerted efforts by TVET institutions can develop and offer training tailored towards ensuring that, the county government meet their constitutionally

delegated mandate to provide immense opportunities for youth training and subsequent youth employment in Kenya (Government of Kenya (2010), Goverment of Kenya (2020)

Despite County government being empowered to run TVET institutions, in Nakuru County, most of the technical institutions mainly target class eight leavers for skills training development. Information obtained from Lang'at (2015), the Technical Vocational Education and Training County Director in Nakuru County, confirms low enrolment, access and participation. The TVET county director attributes low participation of trainees as a product of negative publicity of TVET by the society. In this county, the TVET institutions managers attribute low enrolment in public TVET institutions to some trainees who are unable to pay the training cost and inability to pay for examination fees of about Kenya shillings two thousand five hundred for National Industrial Training Authority (NITA) examination. Records accessible at the Ministry of Education within the county indicate that, despite TVET institutions having a capacity to accommodate many trainees; total enrolment is low. Only twenty-four public TVET institutions have been registered by Technical Vocational Education and Training Authority (TVETA). Table 1.1 that depicts low enrolment over 5 years in Nakuru County in relation to capacity of the TVETs.

Table 1.1: Registered Public TVET institutions in Nakuru County and enrolled trainees

Name of TVET	2016	2017	2018	2019	2020	Capacity
Bahati IBAS	43	51	57	80	90	275
Baruti Youth Polytechnic	49	55	65	68	70	120
Chemare VTC	44	47	68	87	85	115
Cheptuech VTC	48	50	66	85	82	125
Dairy Training Institute	50	49	61	82	78	200
Dundori VTC	51	52	70	87	88	150
House of Plenty VTC	50	53	72	94	110	200
Kenya Industrial T. I.	54	56	77	99	120	150
Kikopey VTC	49	50	69	95	108	160
KWS Training Institute	48	52	78	101	118	180
Lion Hill VTC	51	50	71	93	113	175
Mirera VTC	46	46	62	81	98	125
Molo VTC	47	48	64	88	106	160
Morendat institute of oil gas	45	47	61	82	92	120
Muteithia VTC	52	55	67	93	106	160
Nakuru Youth Polytechnic	55	57	72	90	118	200
NYS Advanced Building Sc.	49	45	62	88	92	160
NYS Sc. of Fashion Design	52	51	66	87	109	240
NYS School of Catering	50	50	63	89	94	120
Rift Valley Inst. of Sc. & T	48	52	68	88	108	180
Rongai VTC	49	51	62	84	97	160
Saptet VTC	43	44	67	83	96	180
Subukia VTC	53	58	70	87	107	250
Wanyororo VTC	51	51	64	85	100	200
Total Enrollment	1177	1220	1602	2096	2385	4105

Source: KNBS Economic Survey, 2019

Table 1.1 shows that, the total enrolment in the 24 TVETs by trainees in Nakuru County over the five years is very low despite efforts by the National Government Community Development Fund (NG-CDF) to equip the TVETs and ensure registration and

accreditation of the TVETs by TVETA. The basis of this study is to investigate individual and institutional determinants of trainees' enrolment in public TVETs in Nakuru County, Kenya.

The budget allocation for the year 2020/21 (FY 2020/21) for funding and rehabilitation of TVETs in all the 47 counties in Kenya is presented in Table 1.2

Table 1.2 Budget allocation for Counties FY 2020/21 for funding of TVETs

S/No.	County Government	Actual Allocation (Kshs.)	Receipts	Actual Receipts as Percentage (%) of Annual Allocation
1.	Baringo		27,823,245	53.1
2.	Bomet		24,249,947	50.0
3.	Bugoma		230,518,694	46.1
4.	Busia		28,599,947	60.0
5.	Elgeyo Marakwet		13,952,447	50.0
6.	Embu		17,124,947	50.0
7.	Garissa		8,949,947	50.0
8.	Homa Bay		20,199,947	50.0
9.	Isiolo		2,672,447	50.0
10.	Kajiando		14,252,447	50.0
11.	Kakamega		51,174,947	50.0
12.	Kericho		11,222,447	50.0
13.	Kiambu		30,992,447	50.0
14.	Kilifi		39,999,447	49.1
15.	Kirinyanga		13,449,947	50.0
16.	Kisii		35,274,947	50.0
17.	Kisumu		22,674,947	50.0
18.	Kitui		46,074,947	27.5
19.	Kwale		28,149,947	50.0
20.	Laikipia		9,159,947	50.0

21.	Lamu	25,149,947	50.0
22.	Machakos	31,374,947	50.0
23.	Makueni	34,149,947	-
24.	Mandera	6,650	<1.0
25.	Marsabit	5,349,947	50.0
26.	Meru	29,124,947	50.0
27.	Migori	120,570,879	50.0
28.	Mombasa	9,242,447	50.0
29.	Murang'a	48,999,947	50.0
30.	Nairobi	8,004,947	50.0
31.	**Nakuru**	**66,289,894**	**67.3**
32.	Nandi	13,959,947	50.0
33.	Narok	8,042,447	50.0
34.	Nyamira	30,204,947	50.0
35.	Nyandarua	15,474,947	50.0
36.	Nyeri	24,474,947	50.0
37.	Samburu	5,274,947	50.0
38.	Siaya	24,099,947	50.0
39.	Taveta	28,817,447	50.0
40.	Tana River	23,837,447	16.2
41.	Tharaka Nithi	30,399,947	50.0
42.	Trans Nzoia	21,954,947	29.4
43.	Turkana	6,354,947	50.0
44.	Uasin Gishu	20,064,947	50.0
45.	Vihiga	34,989,947	49.9
46.	Wajir	7,037,447	50.0
47.	West Pokot	8,874,947	50.0

Source: County Governments Budget implementation Review Report FY 2020/21

The counties are alphabetically arranged. Table 1.2 shows that, the 47 counties have an annual budgetary allocation for TVETs' funding but when it comes to putting the allocated amount in use, Nakuru county, which is number 31 in the serialisation alphabetically has put into use 67.3% of the allocated annual budget as compared to most counties which have put into use only 50%, other counties have used less than 50% of the funds allocated to TVETs while a small number that includes Busia and Makueni had not used anything of the budget allocation FY 2020/21 in the first 9 months (OCOB, 2021). Nakuru County therefore deserves to have high enrolment in its TVETs due to her consistent efforts in funding the TVETs in her jurisdiction.

1.2 Statement of the Problem

Enrolment in TVET institutions in Kenya has remained low and Nakuru County is worse since her TVET institutions do not enrol trainees to the capacities they can hold. In addition, the TVET institutions in Nakuru County are few despite the fact that the county is extensive and densely populated. The Nakuru County government in her development plan, 2018-2022 has undertaken to equip existing TVET centres, recruit more trainers and respond to job market needs in a bid to attract prospective trainees to enrol in her institutions. Infrastructure, tools and equipment have been allocated 450 million to be funded by county government, capacity building funds allocated is 12 million and funds for paying for the training fees for the youth allocation is 100 million to be funded by Nakuru County treasury (County Government of Nakuru, 2018). Despite the Nakuru County government's effort to address the gap of low enrolment in her TVET institutions, enrolment has remained low in Nakuru County TVETs. This is evident in Table 1.1 which shows low enrolment compared to capacity of the individual TVET

institutions and Table 1.2 which shows the extent to which the county government of Nakuru has invested in her TVETs and used the allocated funds in her TVETs. This study was conducted to investigate the individual and institutional determinants of trainee enrolment in public, technical education and vocational training institutions in Nakuru County, Kenya, so as to unravel the puzzle of low enrolment.

1.3 Purpose of the Study

The purpose of this study was to investigate the individual and institutional determinants of trainee enrolment in public, technical vocational, education and training institutions in Nakuru County, Kenya.

1.4 Research Objectives

The following research objectives guided the study.

i) To establish how grades scored in Secondary Examination influenced trainees' enrolment in Public Technical, Vocational, Education and Training institutions (TVETs) in Nakuru County, Kenya.
ii) To establish how socioeconomic status of parents or guardians influenced trainees' enrolment in public TVETs in Nakuru County, Kenya.
iii) To determine influence of courses on offer on trainees' enrolment in public TVETs in Nakuru County, Kenya.

iv) To assess the extent to which trainees' attitudes influenced their enrolment in public TVETs in Nakuru County, Kenya.

1.5 Research Hypotheses

This study was guided by the following research hypotheses:

H_{O1}: There is no significant relationship between grades scored in secondary examination and enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs) in Nakuru County, Kenya.

H_{O2}: There is no significant relationship between socioeconomic status of parents or guardians and trainees' enrolment in public TVETs in Nakuru County, Kenya.

H_{O3}: There is no significant relationship between courses on offer and enrolment of trainees in public TVETs in Nakuru County, Kenya.

H_{O4}: There is no significant relationship between trainees' attitudes and enrolment of trainees in public TVETs in Nakuru County, Kenya.

1.6 Significance of the Study

The findings of this study may be significance in various ways; first, the information obtained could help TVET Curriculum Development Assessment and Certification Council (CDACC) in designing and developing new TVET courses which address the needs of the trainees and the entire community. Secondly, the findings might help Nakuru County's stakeholders to disentangle valuable bits of knowledge in the utilization of rare resources for the advancement of sustainable development, which would empower the

County to accomplish both Sustainable Development Goals (SDGs) and Kenya's vision 2030. Thirdly, the findings could also be eye opener to curriculum designers to shift TVET curriculum from curriculum-based time-bound approach for certification to demand driven approach with certification based on demonstration of competence. Lastly, the research findings may useful for the county to choose for their TVETs courses that match with the skills needed by the industries within the county and beyond. The findings shall add important information to the body of knowledge of TVET planners to unravel the mystery of low enrolment and reverse the mind-set of the entire community towards TVETs.

1.7 Limitations of the Study

The researcher relied on information given by respondents although it was not possible to control their attitudes. Nevertheless, the researcher offered confirmation to respondent's confidentiality of their identity and that the information would only be used for the purpose of this study. The Technical, Vocational Education and Training institutions (TVETs) in the study area constituted both rural and urban institutions. This posed a challenge when carrying out actual survey in terms of accessibility due to the terrain or distance from main road. The researcher alleviated this by being flexible and resilient during the exercise.

1.8 Delimitations of the Study

The study targeted all the registered public TVET institutions that have operated for at least five years and have continually posted low trainees' enrolment over the years in

Nakuru County leaving out newly registered TVET institutions and private TVET institutions which might have more information on the individual and institutional determinants of trainee enrolmentt. Only the principals, instructors and trainees were involved in the study leaving out other stakeholders in the community and the entire County who would have equally important information. Moreover, the study only considered three individual determinants namely grade scored in secondary education, socioeconomic status of parents or guardians and attitude of trainees; and one institutional determinant, the courses on offer in relation to enrolment of trainees in TVETs leaving out other equally vital determinants. These determinants were considered since the choice to enrol in an institution to study is individual and what to study has to be appealing to the individual in the institution enrolled in.

1.9 Assumptions of the Study

In this study, the following assumptions were made

i) That the respondents will be honest and will give appropriate answers to the questions in the research questionnaire.
ii) That trainees' enrolment to TVET institutions was closely associated with the determinants identified
iii) That the respondents were aware of the determinants and the relationship to enrolment in TVET institutions and gave relevant responses.

1.10 Definition of Significant Terms

Attitude refers to a mental predisposition of trainees to respond positively or negatively towards enrolling into a specific course such as tailoring in a Technical Vocational Education and Training Centre

Courses on offer refers to professional artisan, certificate and diploma training available to trainees for study in a TVET institution

Determinant refers to a characteristic which decisively influences the nature of outcome of the enrolment in TVET institution

Enrolment refers to the total number of trainees admitted take any course in a given TVET institution

Public TVET institution refers to Technical and Vocational Education and Training institutions managed and maintained by Central government or County government

Retention rate refers to the percentage of trainees enrolled for a particular course in a TVET institution who continue to complete the course duration and graduate

Socioeconomic Status refers to the social standing or class of prospective TVET trainee parents or guardians often measured as a combination of education income and occupation

Technical Education/Training refers to training that focuses on technology and developments made in computers and digital information to cater for automated tasks which are computerised

Vocation Education/Training refers to organized activity which enables learning in a more practical manner and often focuses on skills and abilities a person needs to perform a job. Vocational training aims at preparing trainees for work in construction, manufacturing and similar jobs that require skilled labour.

1.11 Organization of the Study

The study is organized into five chapters. Chapter one is introduction covering background to the study, statement of the problem, purpose of the study, research objectives, research hypotheses, significance of the study, limitations of the study, delimitations of the study, assumptions of the study, definition of significant terms in the study and organization of the study.

Chapter two, consists of literature review on grades scored in KCSE, socioeconomic status, courses on offer and the trainees' attitude towards TVET institutions in relation to trainees' enrolment in the TVET institutions and finally theoretical Framework and Conceptual Framework of the study.

Chapter three is research methodology covering introduction, research design, target population, sampling size, sampling procedure, research instruments, pilot study, validity of the research instrument, reliability of the research instrument, data collection procedures, data analysis techniques and ethical considerations.

Chapter four consists of data presentation, interpretation and discussions of findings.

Chapter five presents summary of the study, conclusions, recommendations and suggestions for further study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers introduction and review of literature on individual and institutional determinants of trainee enrolment in public TVETs. The section also discusses the concept of TVET and the determinants which include; the influence of grade scored in KCSE, socioeconomic status of trainees, courses on offer and trainees' attitude on enrolment of trainees. The section also presents the theoretical framework and the conceptual framework of the study.

2.2 The Concept of Technical and Vocation Education and Training

Vocational education and training are that part of tertiary education and training which provides accredited training in self-employment, job related and technical skills (Ismail 2010). Vocational education and training lays focus more on practical skills and being able to perform tasks related to working in a particular industry especially manufacturing and construction while technical education and training is similar in nature to vocational education and training but focuses on technology and developments made in computers and digital information hence more computer oriented. Technical and Vocational Education and Training (TVET) is under the ministry of education and its state

department of Vocational and Technical Training. The State Department has two directorates; Directorate of Technical Education (DTE) and Directorate of Vocational Education and Training (DVET). TVET is offered at two levels namely Technical and Vocational Colleges (TVCs) and Vocational Training Centres (VTCs). The TVCs consist of Technical Training Institutions (TTIs), Institutes of Technology, National Polytechnics and Technical Training Colleges (TTCs) whereas the VTCs comprise the Youth Polytechnics (YPs). The policy priority of TVET is to improve access and participation with the goal of promoting market ready skills (MoE-NESSP, 2018). The progression enables trainees to study from artisan level and rise through the ladder to the Doctorate level following the career chosen in TVET pathway as shown in figure 2.1 on progression of learning.

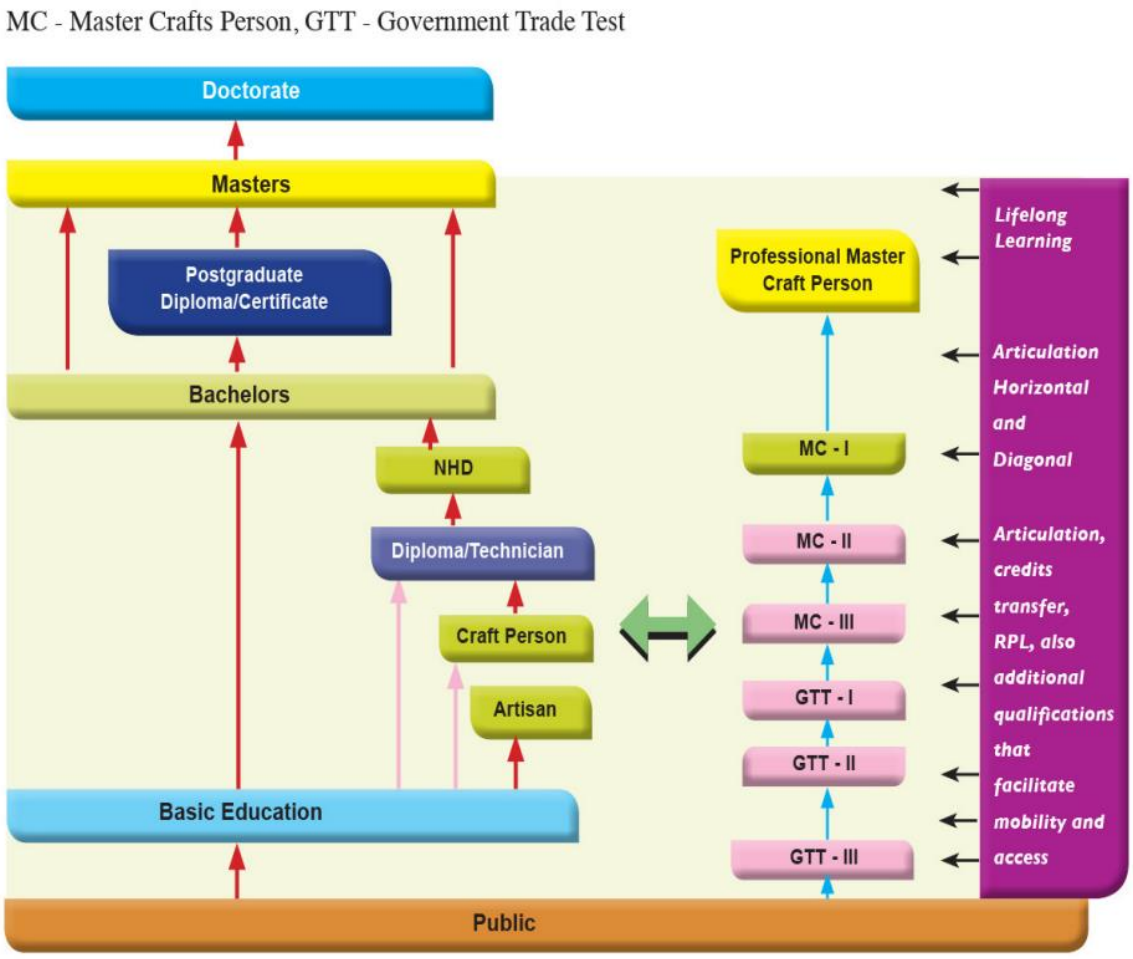

Figure 2.1 Education and Training Progression Pathways

Source: KNQA 2018

Figure 2.1 shows that trainees in TVET can take any pathway starting from Government Trade Test (GTT)-III to GTT-I, then progress to Master Crafts person (MC)-III to MC-I and finally to Professional Master Crafts Person providing lifelong learning. There is also horizontal and diagonal mobility where a trainee can cross over to Artisan, then progress to Crafts Person to Technician to National Higher Diploma (NHD) then to Bachelors' degree, Masters' degree and finally Doctorate degree to be at per with the academic oriented pathway (MoE-NESSP, 2018).

TVETS have been in operations since independence (Kireagu, 2017). Village Polytechnic Programmes were established by National Christian Council of Kenya (NCCK) in 1968 to provide skills to the large number of Primary school dropouts and graduates who failed to proceed to secondary schools (Kitui, 2015). The Government of Kenya also established TVETS particularly in areas characterized by high population and low income (Republic of Kenya, 2016). TVET Institutions growth continued but at slow rate. Currently the Government of Kenya is working on implementation of 100% transition policy from Primary to Secondary hence Primary school graduates who were targeted to enroll in TVETS no longer enroll. It is expected that, the curriculum reform from 8.4.4 system to Competence Based Curriculum (CBC) will impact positively on TVET enrolment since many pathways for learners who may not qualify for academic pathway will be enrolled in TVET: Basic Education Curriculum Framework: (BECF).

TVETS focus on lifelong learning approaches that foster close links to labour market and equipping trainees with skills for self-employment so as to raise living standards resulting in a higher socio-economic status. TVETS have to aim at forging partnerships with the Government, private sector and the community at large so as to provide skills with holistic tenure that takes care of the immediate needs of the training without compromising the entire community. TVETS must adopt demand-driven courses for self-employment and employer focused to ensure placement of its graduates (UNESCO, 2021).

TVET initiative world-wide aims at establishing an open stable and sustainable society based on a diversified and growing market economy that generated employment reduces poverty and promotes equitable economic and socio-economic development.

TVET in a country is necessary to provide knowledge and skills in technical and vocational fields in order to meet national manpower requirements in various fields such as Agriculture, Business and Industry. According to Kenya Education Sector Support Programme-KESSP, (2005), the main aim of investing in TVET is to enhance skills development for increased productivity in order to stimulate socio-economic growth and development as well as employment creation for the youth. TVETS are expected to produce adequate number of graduates in accordance to the market demands. These graduates are supposed to have knowledge, skills, values and attitudes that can be used in a given industrial context.

TVET training covers a large number of careers placed under engineering profession. Engineering profession is considered to comprise of five cadres of staff namely; Engineer, Technologist, Technician, Crafts person and Artisan. The five cadres cut across TVETS. The current trend is having low management structures in the work place with roles of Artisans and Crafts people merging into one common cadre of operators. This cadre is trained in TVETS. A four cadre Engineering workforce is popular within formal enterprises and for developing countries, Kenya included, the ratio would be 1 Engineer: 3 Technologists: 12 Technicians: 60 operators. TVETS train Technicians and Operators (Crafts person and Artisan) which form the bulk of Engineering workforce hence the emphasis in TVET Education and training. TVETs train technologists, technicians and

operators in such fields as plumbing, electrical and electronics, carpentry, building and construction and mechanics. Trainees enrol in the TVET institutions to acquire such life-long skills. Prospective trainees will focus on acquisition of the skills from the courses offered by the available TVET institutions and the marketability of such courses. If the courses meet labour market needs, more trainees will enrol in that institution. TVET with its relevant practical training component is widely recognised as the key to any nation becoming technologically relevant and internationally competitive in the world market (Deebom & Zite, 2017; Simiyu, 2009; Agrawal & Agrawal, 2017; Ramhari, 2021; Reyes, 2018). This key role of the TVET has raised concern on the low enrolment in TVET institutions since TVET institutions have been accorded adequate funding from the government to enable designing of courses that march skills with dynamism in the contemporary labour market, trainee motivation and staff motivation. Low socioeconomic status of parents and guardians of trainees prohibits youth from being enrolled and sustained in TVETs. Low enrolment in TVETs robs the country the economic national development to be catered for by the graduates of TVET. TVET curriculum has been reformed to be industry driven hence requires trainers with industry experience and competences. TVET trainers are developed to be responsive to the labour market demands in joined partnership with the Government, industry and academia. The proposed research shall focus on the individual and institutional determinants of trainee enrolment so as to boost enrolment in TVETs and rip the associated benefits from the TVET graduates.

2.3 Grade scored in Secondary Examinations and trainees' enrolment in TVETs

In India, the students who tend to enrol in TVETs are lower achievers in National examinations (Agrawal, 2012) hence low eligibility requirements and status accorded to TVET oriented careers resulting to low enrolment. A study conducted by Agodini and Novak (2014), Moenjak and Worswick (2013) in United States on academic achievement and enrolment in colleges found out that, students with lower academic achievement in last national examination are likely to enroll in TVET. The study further found that, Thailand students with higher academic achievement were more likely to enrol in TVETs than general academic colleges. Students with lower academic ability are likely to enrol in TVETs in Australia to take apprenticeships and traineeship courses offering lower level certificates (Curtis, 2008). A study carried out in Japan by (Kumiko, 2016) on introduction of Japanese dual system for promotion of TVETS revealed that, parents and students generally put greater focus on university education compared with TVET, consequently, students with lower grades and from relatively weak socio-economic background also deem TVET a second choice after university.

This situation is similar in Kenya since the high academic achievers of C^+ and above Join universities and colleges for academic oriented courses while those who score C, C^- and D^+ can join TVETs to take diploma and certificate courses and the rest D to E take artsan courses in TVETs or opt for unskilled labour provision (Muranguri, KUCCPS, 2020) however, for 2019 candidates, over 2000 students with university entry grades opted for TVET courses, which is a departure from norm in the previous years (Tanui, 2020). This could imply that, the grades allocated to TVETs are limiting in terms of enrolment. The trend could take the direction of Thailand where high academic achievers enrol in TVETs which may impact positively in TVET enrolment in Kenya in future. The

implication is that, if the choice of joining tertiary institutions of learning is left to the individual to decide whether to join TVET, colleges or universities without preset inclinations that may make prospective trainee think it is inappropriate to join TVET institutions, then, enrolment would improve with higher academic achievers in KCSE opting to enrol in TVETs. The Kenya National Examinations Council, KNEC (2021) report is populated to give a summary of grades scored every examination year against number of candidates. Table 2.1 gives performance for year 2020 candidates

Table 2.1 Grades scored in 2020 Kenya Certificate of Secondary Examination (KCSE)

Grades	Female	Male	Total	%

A	304	589	893	0.12
A-	2371	4049	6420	0.85
B+	5612	8815	14427	1.92
B	10275	14932	25207	3.35
B-	16349	21845	38194	5.08
C+	27075	30924	57999	7.71
C	42852	42606	85458	11.36
C-	55326	54128	109454	14.55
D+	58371	59527	117898	15.67
D	62801	59141	121942	16.21
D-	70789	66572	137361	18.36
E	12821	15225	28046	3.73

Source: KNEC ESSENTIAL STATISTICS 2020

The table 2.1 shows that, those candidates who score grades C to E are more (79. 78%) against those who score C+ and above (19. 03%). This means that TVETS should be well enrolled since TVET entry grade is grade C to E. the performance has taken a similar trend over the years with those candidates who score grades C to E being many and expected to join tertiary institutions of learning TVETs included but enrolment in TVETs

has remained low. Moreover, more females scored grade C – E (40.711) than males (39.06), consequently the enrolment in TVETS is expected to have more female trainees than males from the grades scored. The Kenya National Examination Council (KNEC) Essential Statistics Report of 2017 showed that, 314,035 candidates scored grades D and below and therefore cannot proceed to university or tertiary institutions to advance their studies or secure gainful employment. In the year 2016 also, 295,653 KCSE candidates scored D and below. This trend showed that, the future of form four graduates who score low grades is bleak in the field of academics (Ouma & Onsongo, 2020). Education experts warned that massive failure in national examinations is a ticking time bomb since form four candidates are facing uncertain future in academics after they fail to attain the cut off points for universities and tertiary institutions. This situation was compounded by the fact that the government of Kenya was advocating for the implementation of 100% transition from primary to secondary from January 2018. Educationist Andiwo Obondo in an interview told Sunday Nation that the future of the candidates who score low grades in KCSE lies in technical and vocational education and training where they can gain skills (Andiwo, 2020). No studies have been done in Nakuru County on grades scored in KCSE as a determinant of enrolment in TVETs hence this study seeks to establish the relationship between grades scored in KCSE and enrolment in TVETs in Nakuru County.

2.4 Socioeconomic status of parents/guardians and enrolment in TVET institutions

Family's income and surrounding environment come into play in trainees' decision to enroll in TVET. When socio-economic status is analyzed in relation to enrolling in TVETS, trainees who come from families with lower education are more willing to enroll in TVETS rather than the trainees who live in the cities with much more higher

background levels in terms of income, housing prices and also educational qualifications are less interested in enrolling in TVETS (Arregle & Mari, 2019). Low socioeconomic status of parents or guardians can be equated to poverty level of the parents or guardians being high and at most amplified by a considerable level of illiteracy and ignorance. This situation precipitates lack of self-esteem and self-awareness. According to Kiplagat and Kafu (2021), low socioeconomic status results in parents or guardians' inability to meet basic needs which include education and training. On the contrary, semi-illiterate parents and guardians do not consider education as a basic need hence most semi-illiterate parents and guardians concentrate on striving to acquire food, shelter and clothing and forget about secondary and tertiary education and training.

The level of income of parents dictates whether they shall support enrolment in tertiary institutions of learning TVET included. The Kenya economic survey report indicated that poor economic growth in Kenya led to low socioeconomic status (SES) of families (Government of Kenya, 2013). Most families live below poverty line and are not able to access basic needs like food, shelter, clothing, health services and education and consequently, poverty hinders enrolment of trainees in TVETs. The effect of low SES on education are far reaching and more so to tertiary education especially TVETs since parents and guardians expect their children after completing secondary education to assist in the families' generation of income to meet basic needs.

Socioeconomic status (SES) includes gender of trainees. In many African communities, Kenya included, girls and boys are assigned different roles which are deeply embedded in the culture of the society such that they affect the decision of the family on which career is feminine or masculine. In many societies, most TVET oriented careers are deemed

masculine. These careers include masonry, carpentry, welding, plumbing, shoe-making and other engineering courses like mechanical engineering, motor vehicle mechanic and electrical engineering. This cultural stand of classifying careers in TVETs as feminine or masculine negatively influences enrolment of girls in TVETs and by extension lowers overall enrolment in TVETs. A study carried out in Nigeria by Akarue and Obavwunuto (2019) on attitudes of individuals based on socioeconomic status (SES) revealed that societies and culture can influence on choosing of careers in TVETs hence influencing enrolment. Attitudes of people towards TVET oriented careers also influences enrolment of trainees in TVETs. In Nigeria, people mostly choose a job due to their social status and level in the society as well as looking to satisfy their friends and associates undermining their aptitude.

Arregle, and Mari (2019), Madhavani and Sisodia (2019), in their studies on enrolment of trainees in TVETS in Malaysia found out that income levels of parents and guardians have significant implications on preference of trainees to enroll in TVETS. Majority of trainees enrolling in TVETS are from parents and guardians with low economic status, low education and occupational background. Socioeconomic status background exerts influence on enrolment decisions. Socioeconomic status (SES) reveals inequalities in in access to resources and issues related to privilege, power and control. A study carried out by (Gemechu, 2018) in Haramaya University of Eastern Ethiopia on family socioeconomic status effect on students' academic achievement found out that, low SES has significant effect on academic performance and school success in terms of enrolment and completion rates. Richardson (2002), Adler & Snibbe (2003) and Marcus & Fonseca (2019) agree with Gemechu (2018) that SES is an important individual determinant in

supporting trainees to enrol and accomplish their studies in TVETs. A study done by Sandefur and Campell (2006) on sociological framework to examine the influence of family resources as a determinant of enrolment in certificate courses in 2-year and 4-year colleges in the United States showed that, students from high SES have higher probability of enrolling in 4-year college than 2-year college. This is quite practical since trainees require financial support in order to pay any fees and acquire learning resources. Low socioeconomic status will thus result in inability to enrol or complete the course enrolled to.

Research done by Akale (2015) in Nigeria on effect of socioeconomic status of parents in sustaining learners in TVETs found out that low socioeconomic status parents couldn't support a student's training in any institution. UNESCO's report on Education for All prominently indicated that 66% of learners who tried out various educational programs in specialized institutions in Bangladesh and Sub-Saharan Africa pulled out before completion of specialized instruction cycle because of guardians' low pay (UNESCO, 2017). This is on the grounds that low socioeconomic status restrains parent's capacity to cater for vital expenses of training resulting in high dropout rate of trainees in specialized institutions like TVETs. This is so because low socioeconomic status parents lack basic needs and will tend to consider furthering education after KCSE as waste of time and would opt for KCSE holders to start working to subsidize the family's income. Research done by Kyungu and Macharia (2017) on impact of economic status on specialized educational programs' instruction found out that, trainees from low socioeconomic status families are bound to miss training than those from high socioeconomic status families on account of inability to pay institutions' expenses.

From these survey findings, socioeconomic status seems to affect enrolment of learners in different TVET institutions. The studies indicate that, monetary component significantly affects enrolment levels in learning institutions and TVET institutions are included. The implication could be that, improved socioeconomic status is likely to increase enrolment in TVETs and subsidizing or assisting trainees by providing bursaries and grants may go a long way in boosting enrolment and completion rates for trainees from low socioeconomic status families. This research intends to fill the gap on how socioeconomic status of families affects enrolment in public TVET institutions.

2.5 Courses on offer and trainees' enrolment in public TVET institutions

One concern of policy makers is to guarantee a TVET system that is applicable to real life without compromising issues of quality (Konayuma, 2008). Quality TVET courses guarantee strong link between skills learned and the needs of the labour market by producing graduates with superior employability while creating flexible pathways at all levels to facilitate vertical and lateral progression of TVET students as part of lifelong learning for employability. A deliberate effort should be made to ensure available flexible pathways that provide students with skills that are relevant to the labour market along with acceptable levels of literacy, numeracy, skills, values and attitudes.

According to Ngure (2013), training needs that are recognized and objectives that are put in place call for refreshing and modification of courses on offer to meet the needs of trainees. This would mitigate the drop out cases since the trainees' will most likely train for the skills that are demand driven. Utilization of obsolete curriculum can be a major

cause of low enrolment in TVETs when trainees notice that the courses on offer are out of phase with modern technology. Quality of training in TVETS varies greatly across the various TVET providers. There is need to ensure harmonization and coordination of courses by standardizing the quality and relevance of training in TVET institutions by addressing the challenges of curriculum design and delivery in all TVETS and conducting tracer studies of TVET graduates, provide labour market information system to provide data on skills demands by establishing strong links with the market/employers, that is, put in place Labour Market Information Systems (LMIS) and other survey instruments for the data on the actual employability of TVET graduates in partnership with industry. The curriculum can be redesigned to address the changing industry demands and the increasing diversity of trainee needs. Courses offered that give trainees' confirmation of being retained in the employment positions or self-employment are indispensable. Unresponsive, rigid curriculum will result in deficient curriculum courses that provide insufficient skills and low competency of graduates.

The main reasons why trainees enroll in TVETS is to gain employable skills and skills for self –employment with high earning potential. The thought of getting attractive employment that is well paid is an impetus to enrolling in TVETS (Mulongo & Kitururu, 2016). TVET courses that are more practical and provide better opportunities for employment than the formal school system come in handy for trainees to enroll in TVETS (Mulongo & Kitururu, 2016; UNESCO, 2021 and Kumiko, 2016). Opportunity and sheer satisfaction of entrepreneurship after completing a given TVET course is a reason for enrolling in TVET. The graduates have the opportunity to start their own

business or link up to open workshops and offer services in Mechanics, Plumbing, Electrical installation, among others. Employment opportunities for TVET graduates, earning potential that the course taken offers well-paying job, attractive employment and being enabled to self-employ oneself either as a single entity or group are main reasons for joining TVET courses that fulfil these attributes are expected to rise enrolment rates. This is according to the study carried out by Mulongo and Kitururu (2016) in Tanzania on determination for positioning and promoting TVET in Tanzania.

The national government education and training organizers need to set up TVET courses which will motivate trainees to enrol and remain in the training system until completion by giving new courses that go hand in hand with the current market demands and the dynamic technologies. No research had been done in Nakuru County in Kenya in relation to how courses on offer is a determinant of enrolment in public TVET institutions and thus, this proposed study purposes to fill this gap.

2.6 Trainees' attitude towards TVET courses and enrolment in TVET institutions

TVET sector is faced with the challenges of negative perception and poor image which has continued over a period of time. The sector is often seen as last choice of education and not a preferred option in education and training. The poor image can be attributed to multiple factors related to equity, access, quality and relevance. Among the factors leading to this negative perception include lack of specialization in TVET Institutions, lack of clear admission and progression procedures, inadequate career guidance in basic

education, inappropriate infrastructure and equipment and low funding (MoE-NESSP, 2018).

Research carried out by Saif and Sharjah (2016) in United Emirates on attitudes towards vocational education and training found out that, the general view against Vocational Education is negative and that TVETS are suffering from low reputation and bad image in the society. Reddy and Devi (2011), in their study carried out in India to determine the attitudes of undergraduate students towards vocational education agreed with Saif and Sharjah (2016) that TVETs suffer Negative attitude generally discouraging prospective trainees from joining TVETs. In Ghana parents view on vocational education is that vocational skills are not competitive enough for more high income jobs in the labour market and this makes the parents to be wary of encouraging their children to enroll in the TVETs. Negative view in the community discourages would be trainees from enrolling in the training institutions (Aryeetey & Andoh, 2011). Vocational education is not easily accepted due to the negative attitude and the bad image. Olema (2018) Buyiaga (2021) in their studies related to gender and vocational courses found that, male students have more positive attitudes towards enrolling in TVETS than female students in Nigeria.

A study carried out by international rescue committee in Malaysia (IRC, 2016) on evaluation of significant factors leading to low enrolment of females on TVET found out that, in particular training in a traditionally male industry, lack of knowledge about the strengths of TVET, in adequate financial support due to low socio-economic status and doubts future employment are key reasons why few female trainees are venturing in

TVET oriented careers. Similarly, Alam & Forhad (2020) in their study carried out in Bangladesh on the same issue of low enrollment argued that some of the factors influencing female involvement in TVET include low perception of females in society, weak entry level, poor attitude towards TVET, lack of recognition of females in society, sexism towards TVET graduates and elitism.

Ayonmike (2014), Jyot (2012), Chinyere (2014) all concurred in the same direction in their studies on low enrolment of females in TVETS. Ismail (2019) in his study on attitude and performance examined the relationship between the attitude and performance in vocational training centers in Malaysia and found out that, mentality assumed a fundamental role in deciding students' enrolment in TVETs.Youthful trainees who join TVET institutions already have framed opinions and attitudes. A portion of these suppositions are socially based (Hansen, 2015). Negative attitude towards vocational education goes back to the pioneer history of Kenya. Academic advancement was seen as having a higher societal position than professional training and even pulled in higher wages in salaried employments, making a feeling of optional specialist for those in specialized fields. This has caused low trainee enrolment in public TVET institutions.

According to Kinyanjui (2007), a negative attitude towards vocational education and training is not just among the community individuals, but on the other hand is showed by educators and trainees as they feel insufficient academically. This acts against viable mentorship from the instructor (Kamau, 2013). This attitude of mind is reinforced by the advancements where specialized technical institutions and National polytechnics are being changed into constituent university colleges and universities to offer non-technical

courses (Muindi, 2011). Nevertheless, with the government of Kenya having the policy of 100% transition, new TVET institutions are being registered in the believe that those who score low grades in KCSE will enrol in the institutions. A typical perspective on vocational education and training among numerous individuals is that it is generally meant for students who have a low academic capacity and whose essential expectation is a quick passage to employment or self-employment (Maliranta, Nurmi, & Virtanen, 2010) all agree on this aspect. To help improve the TVET trainees' self-esteem, it is vital to recognize the fundamental point of progressing vocational knowledge is to provide lifelong skills that meet needs of the work place, industry as well as self-employment as opposed to the issue of academic capabilities. None of the past research studies that have been done in Nakuru County in Kenya touched on how trainees' attitude influences their enrolment in TVET institutions and thus, this proposed research study intends to fill this gap.

2.7 Summary of literature review

From the literature reviewed it is clear that there are individual and institutional determinants that influence trainees' enrolment in public technical vocational education and training institutions. Various studies done on these determinants in relation to trainees' enrolment in public TVET institutions attest to the fact that grade scored in KCSE in Kenya leads to low enrolment (Muranguri, KUCCPS, 2020). This implies that, those who score higher grades of C+ and above are not likely to join TVET institutions in Kenya hence low enrolment by virtue of scoring high grades. Socioeconomic status influences enrolment in TVETs. Studies done by Sandefur and Campel (2006), Akale

(2015) and Macharia (2017) conceded that low socioeconomic status results in low enrolment rates especially where tuition fees and examination fees is paid. There exists gaps in the diversity of courses on offer in TVETs, studies done by Konayuma (2008) and Ngure (2013) show that trainees are attracted to enrol in a learning institution if the courses on offer will land the trainee in lucrative jobs or well-paying self-employment. The trainees' attitude, parents and guardians' attitude and attitude of entire community towards TVETs influence enrolment. TVET sector is faced with the challenges of negative perception and poor image which has continued over a period of time. The sector is often seen as last choice of education and not a preferred option in education and training. The poor image can be attributed to multiple factors related to equity, access, quality and relevance. Among the factors leading to this negative perception include lack of specialization in TVET Institutions, lack of clear admission and progression procedures, inadequate career guidance in basic education, inappropriate infrastructure and equipment and low funding (MoE-NESSP, 2018).

Studies done by Ismail (2010), Hansen (1992), Kinyanjui (2007) and Kamau (2013) indicate that negative attitude of trainees' and the community at large will make trainees consider enrolling in TVETs as a last result. The view that TVETs are meant for low academic achievers as opined by Maliranta, Nurmi and Virtanen (2010) aggravates the negative attitude towards TVETs. None of the studies done in Nakuru County included the determinants in this study and how these determinants influence enrolment in TVETs. The literature reviewed confirms that various determinants of trainees' enrolment influence trainees' choice to enrol in various TVET institutions. The studies give a base in carrying out studies in various regions because of the varying conditions of the areas.

2.8 Theoretical Framework

A theoretical framework is the 'blue print' for research which is based on existing theory in a field of inquiry that is related and reflects the hypothesis of the study (Adom, 2018). This research study is based on the Social Learning Theory of Career Decision Making (SLTCDM). The theory was presented by John D. Krumboltz in 1976. Krumboltz was addressing the concern why people prefer one educational program or occupation to another. This is the same concern being addressed in this study since the preference of educational program or occupation will lead to increased enrolment where the course leading to that occupation is being offered. Krumboltz's Social Learning Theory for Career Decision Making (SLTCDM) states that, psychological functioning can be explained in terms of the interaction of personal characteristics, previous behaviour (learning) and environmental conditions. Personal characteristics and learning will include the individual determinants which are the grade scored in the last national examination like KCSE in Kenya, socioeconomic status and trainees' attitude towards TVETs while previous behaviour and environmental conditions explain the institutional determinants. The theory is hence suitable to this study on individual and institutional determinants of trainees' enrolment in TVETs.

The social learning theory for career decision making identifies interactions of genetic influence, cognitive processes, emotional processes, environmental conditions' influence and performance skills on people's career choices (Krumboltz & Mitchel, 1990). Krumboltz (1976) posited that, there are four factors that influence choice of a course or career in this theory: -

1. Genetic endowment or social abilities consisting of race, sex, physical appearances and physical defects that cannot be changed. This study has the objective of grade scored in KCSE which is related to genetic endowment on intelligence which cannot be changed and will influence enrolment in TVETs directly or indirectly.

2. Environmental conditions and events. These are factors usually outside the control of any individual. They are due to number and nature of job opportunities, training opportunities, social policies and procedures for selecting trainees and family resources. With reference to the outlined environmental conditions and events, it is clear that the theory is suitable for this study since household level of income is part of family resources and the procedures for selecting trainees involve grade scored in KCSE.

3. Learning experiences act on the environment to produce certain consequences and associative learning experiences brought by external stimuli which creates attitude towards the TVETs or courses offered in the TVETs hence influence enrolment positively or negatively.

4. Task approach skills are set of skills, performance standards, mental sets and emotional responses that are interactions between genetic and environmental influences (Krumboltz, Mitchell & Jones, 1976).

The theory emphasizes that people's selection of careers are based on what they have learned from encounters with other individuals, institutions and events (Krumboltz, Mitchell, and Jones, 1976). Learning experiences especially observational learning from significant role models like teachers, doctors, engineers, lawyers and parents have a powerful influence on career decision as it makes some occupations more attractive than

others. Positive modeling, reward and reinforcement are more likely to lead to the development of appropriate career planning and hence the choice to enroll in a certain course in TVET institution to pursue that career. Social Learning Theory for Career Decision Making (SLTCDM) focuses on developing career readiness through implementation of the learning theory in school-to-work programs. The theory acknowledges social and contextual influences on career decision making. Social influence will encompass creation of attitude towards specific careers hence influence enrolment either positively or negatively. Contextual influence touches on various attributes which may include the grade scored in KCSE, courses on offer and the socioecomic status.

The social learning theory of career decision making was used in a study carried out on factors influencing enrolment in urban agricultural education programme in Pennsylvania university by Blannie and Levon (2004). The study sought to determine the individuals influencing students to enroll in an urban agricultural programme and to determine the events or experiences influencing enrolment. This theory is therefore relevant for this study on individual and institutional determinants of trainee enrolment in TVET institutions in Nakuru County, Kenya, since the grade scored in secondary education can be influenced by both genetic interaction and environment while socioeconomic status of parents and guardians can be due to social and contextual influence as well as courses on offer and trainees' attitude. This research may contribute to advancement of social learning theory for career decision making (SLTCDM) since the research is dealing with enrolment in TVETs. The determinants being investigated shall shed light on more areas

of interactions and relationships leading to choice of a career other than the ones identified by Krumboltz in 1976. From the literature reviewed, it was cited by many researchers that, most trainees who enrol in TVETs do so as a last result after either failing insecondary examination or not being able to get any other tertiary institution to enrol in. so the interactions of chance or consequential result can be added to the list of SLTCDM interactions.

2.9 Conceptual Framework

Grant and Osanloo (2014) define conceptual framework as a model that describes the relationship between the main concepts of the study. It is arranged in a logical structure to help provide a picture of how ideas in a study relate to one another. The individual and institutional determinants are independent variables while enrolment is the dependent variable.

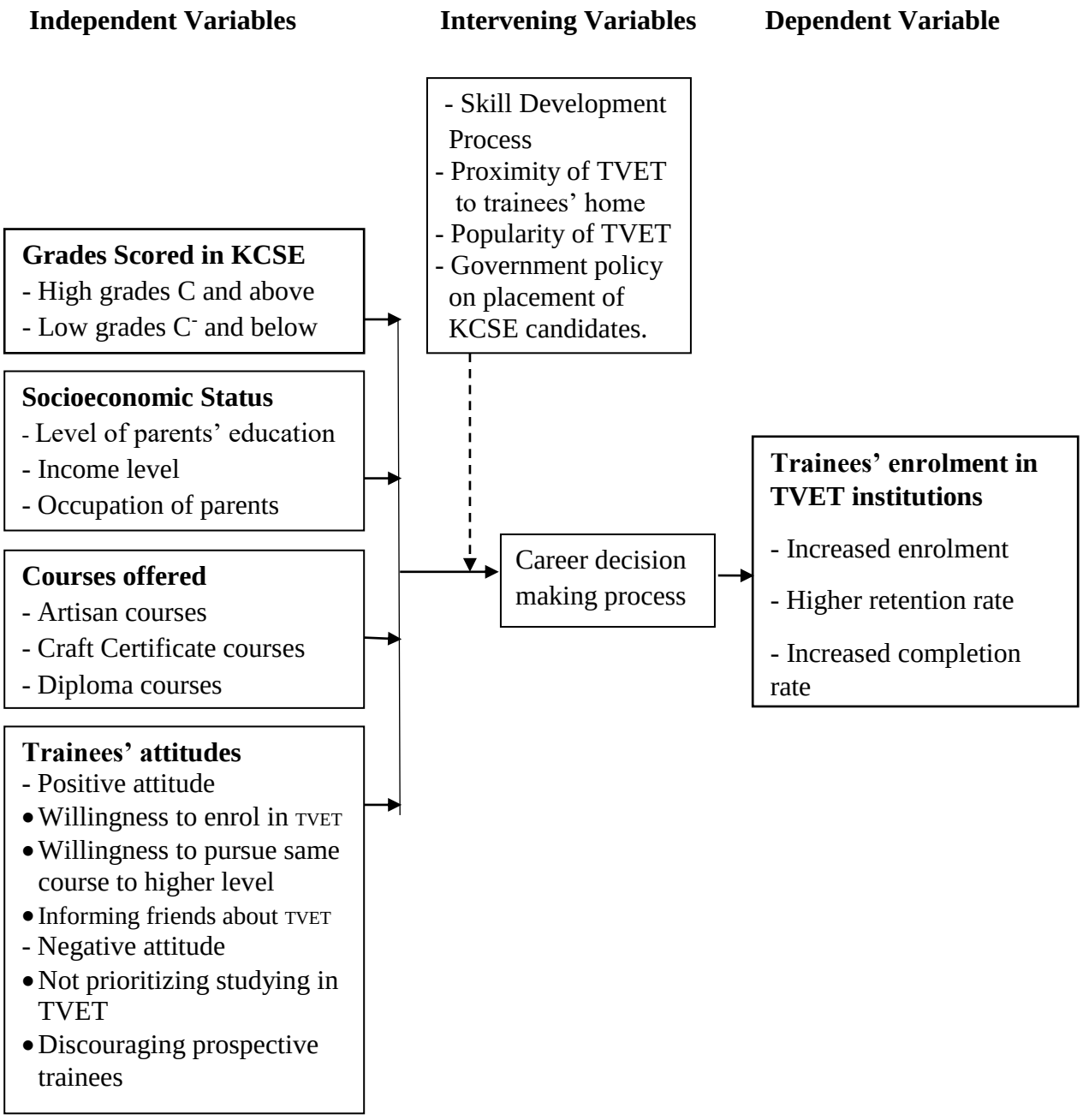

Figure 2.2 Conceptual framework of interrelationship between determinants of trainees' enrolment in TVET institutions

The conceptual framework shows determinants of trainees' enrolment in TVET institutions. If the grades scored in KCSE are high (C plain and above) then, students are unlikely to enrol in TVETs because grade C constant earns direct entry into universities and colleges for diploma in academic oriented careers while C^+ and above is direct entry

into university for degree in academic related careers. Students who score low grades (C- to E) are likely to enrol in TVETs for skill based careers, high socioeconomic status which includes level of parents or guardians income, education of parents or guardians and their occupation also influence decision to enrol in TVETs depending on their ability to meet expenses in the TVET institution and motivation from their level of education and occupation. Marketability of courses offered whether artisan, certificate or diploma coupled with trainees' attitude towards the TVET institutions will bring about increased enrolment in TVET institutions. Prospective trainees will decide to enrol in TVET institution if they have come across role models of TVET graduates employed in lucrative companies or TVET graduates who have started their own businesses and are generating a lot of income. On the contrary, if graduates from TVETs do not get employed or start businesses, prospective trainees' attitude to enrol in TVETs will be negative and translate into low enrolment.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents methodology to be used in the study. It is presented under; research design, target population, sample size and sampling procedure, research instruments, validity of research instruments, reliability of research instruments, data collection procedures, data analysis techniques and ethical considerations.

3.2 Research Design

This study employed descriptive survey research design. A survey is an attempt to collect data from members of a population in order to determine the status of the population with respect to one or more variables. The design explored individual and institutional determinants of trainees' enrolment in public TVET institutions. Descriptive survey is a method of collecting numerical data to answer questions about the status of the phenomena under study. The design allowed the researcher to collect data about people's opinions, attitudes, habits or any other educational issue. The design was considered appropriate because it was capable of facilitating collection of data that described specific characteristics of phenomena in order to determine the status of a population with respect to one or more variables.

3.3 Target population

The study was conducted in all registered public Technical Vocational Education and Training institutions in Nakuru County that that had operated for at least five years and had continually posted low trainees' enrolment over the years. The respondents of this study were drawn from the 24 registered public TVETs in Nakuru County. The study targeted 24 institutions' principals of the TVETs, 150 trainers and 2,385 trainees (County Director of TVET, 2019). Thus, the total population targeted population was 2559 respondents.

3.4 Sample size and sampling procedures

Cooper and Schindler (2014) define sample size as a smaller set of the larger. According to Gay and Airasian (2003), a sample of 20 percent to 50 percent is recommended for small target groups. Therefore, 50 percent of the 24 registered public TVETs were randomly sampled to get a sample of twelve TVETs and twelve principals. Twenty percent of the trainers were taken to give a sample size of 30 trainers. Cochran (1977) formula was used to calculate the sample size of trainees. Cochran formula was appropriate for this study because the target population of the study was large. The formula is given as;

$$n_o = \frac{z^2 pq}{e^2}$$

Whereby; n_o is the sample size, z is abscissa of the normal curve that cuts off an area at the tails, p is the estimated proportion of an attribute present in the population, q is 1-p and e is the desired level of precision. In this study, p = 0.5 (Maximum variability), q = 1-

0.5, desired confidence level = 95% and level of precision= ±5%. Using this formula, with the desired confidence level of 95% and precision level of ± 5% the sample size for trainees was given as at least 331 respondents. Information of sample size was summarized in table 3.1

Table 3.1 Sampling frame

Category of respondent	Population	Sample
Principals	24	12
Trainers	150	30
Trainees	2385	331
Total	**2559**	**373**

The principals were purposively selected since they had the core responsibility on TVET institutions' management function. The study adopted stratified random sampling on institutions' instructors and trainees which ensured that each subgroup of interest was well represented. Therefore, the total sample size was 373 respondents.

3.5 Research Instruments

The tools of data collection for this study were interview schedule for principals, questionnaires for trainers and trainees and document analysis guide. The questionnaires were used for data collection from the trainees because it offered considerable advantages in the administration, presented even stimulus to large numbers of people simultaneously and provided the researcher with an easy accumulation of data. Gay and Airasian (1992) maintain that questionnaires give respondents freedom to express their views or opinion.

A document analysis guide allowed collection of secondary data by way of interrogating official records for verification of the situation on the ground.

Interview schedule for principals

To collect data from the principals, interview scheduling was done so as to be able to meet with principal of each TVET institution selected and conduct an interview. The interview session had two parts A and B. Part A collected data on TVET Principal's profile while part B collected data on the outlined objectives. The use of the interview schedule helped in filling in the questions with the answers received during the actual interview.

Questionnaires for trainers

The questionnaires for trainers were structured into five sections. Section one gathered information on the background data of the instructors. Each of the other four sections were used to gather data on individual and institutional determinants of trainees' enrolment in TVET institutions. The questionnaires contained both closed-ended and open-ended items.

Questionnaire for trainees'

The questionnaires for trainees structured into five sections. Section one gathered information on the background data of the trainees. Each of the other four sections were used to gather data on individual and institutional determinants of trainees' enrolment in public TVET institutions. The questionnaires contained both closed-ended and open-ended items.

Document analysis guide

Document analysis was used to augment the findings of the study. Admission records were analysed to get actual grades scored in KCSE and courses being taken by trainees. The admission records also revealed the actual enrolment in the entire institution and distribution of courses on offer to find out the course with highest number of trainees since such courses promote enrolment.

Brochures were analysed to get record of the courses on offer which might not have been advertised for those interested to apply and finally graduation lists were analysed to give data for enrolled trainees who successfully completed taking the courses they were enrolled in.

3.5.1 Validity of the Research Instrument

Instrument validity implies that the instrument measures what it is intended to measure. It is the degree to which results obtained from the analysis of the data actually represent the phenomena under study (Taherdoost, 2016). From the assistance given by the supervisors, the data collection instruments validity was improved. Piloting of the instrument was done to provide information required and hence used to confirm whether, it conformed to research objectives of the actual study. According to Cooper and Schindler (2010) and Taherdoost (2016) a pilot sample of at least 10% of the population is acceptable thus in this study two principals, 33 trainees and 15 instructors were selected for pilot study to check for validity of research instruments. According to Kumar and James (2015), there are two approaches to establishing the validity of a research

instrument: Logic and statistical evidence. In this research, validity was established by a logical link between questions and the objectives (Kumar & James, 2015). To increase the validity of the study regarding face validity, Content validity and construct validity, framing of the questions was kept in line with the concept of Zikmud, Babin, Carr, and Griffin (2010). Face validity is a subjective means of determining whether the instrument is measuring what it is developed to measure while content validity refers to the representativeness of the items of an instrument as related to the entire domain. Construct validity is the ability of indicators and scales to measure accurately the concept under study (Hair, Black, Babin, & Anderson 2010). Where necessary, adjustments were made.

3.5.2 Reliability of Research Instruments

Reliability is a measure of degree to which a research instrument gives consistent results after repeated trials (Taherdoost, 2016). Reliability of the instrument was tested by use of the pilot study. Reliable instruments are consistent and yield similar results under similar circumstances (Borg & Gall, 1989). To determine instrument's reliability, a test-retest pilot study was conducted. Taherdoost (2016) noted that the pre-test should be 10% of the sample thus out of 12 principals one principal was selected for pre-test, one public TVET institution, 3 trainers and 33 trainees. The test-retest involved administering the same instrument twice to the same group of subjects. There was a two-week time lapse between the first test and the second as recommended by Streiner et al, 2014. The completed instruments were coded and scored again. Pearson's Product Moment Correlation Coefficient (PPMCC) was used for test - retest results analysis.

$$r = \frac{\Sigma xy - (\Sigma x)(\Sigma y)/N}{\sqrt{[\Sigma x^2 - (\Sigma x)^2/N][\Sigma y^2 - (y)^2/N]}}$$

KEY:

xy - sum of cross products of scores of each variable

$\sum x^2$-sum of squared deviation in x

$\sum y^2$ - sum of squared deviation in y (Kombo & Tromp, 2006).

According to Kothari (2011), a coefficient of 0.70 or more, showed that there was high reliability of the instruments and was acceptable for this study.

The test-retest was carried out by the researcher prior to administering them to the respondents for data collection. The results for the Pearson's Product Moment Correlation Coefficient (PPMCC) are presented in table 3.2

Table 3.2 Reliability result of PPMCC

		Do grades scored in secondary school examination influence trainees' enrolment (T1)	Do grades scored in secondary school examination influence trainees' enrolment (T2)
Do grades scored in secondary school examination influence trainees' enrolment (T1)	Pearson Correlation	1	.896**
	Sig. (2-tailed)		.000
	N	33	33
Do grades scored in secondary school examination influence trainees' enrolment (T2)	Pearson Correlation	.896**	1
	Sig. (2-tailed)	.000	
	N	33	33

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson – correlation computed to assess the test-retest reliability of the grades scored in secondary examination on influence of trainees' enrolment for r (33) =0.896 was obtained. This indicates excellent reliability of the test item.

3.6 Data collection procedure

The researcher first sought clearance from the University of Nairobi to apply for a permit from National Commission for Science, Technology and Innovation (NACOSTI). The researcher then proceeded to seek further clearance from office of the County Director of

Education (CDE) in Nakuru County, County commissioner's office and public service, training and devolution office of Nakuru County. Thereafter the researcher wrote letters to the principals of the sampled TVETs to be allowed to do the study. The selected TVETs were visited to book appointments on when to visit them for data collection. Questionnaires were administered and picked as per the agreement. Dates were set and interviews conducted on principals of the selected institutions. Document analysis was conducted on the same day the questionnaires were administered.

3.7 Data analysis techniques

This was done by first cleaning, coding, entering and then analysing. The data was analysed both qualitatively and quantitatively. Quantitative data was edited to eliminate inconsistencies, summarized and coded for easy classification in order to facilitate tabulation and interpretation. The researcher then used Statistical Package for Social Sciences (SPSS) IBM version 20 to analyse data. Descriptive statistics was used in describing the sample data in such a way as to portray the typical respondent and to reveal the general response pattern. Qualitative data analysis was done by describing the distribution of single variables. The relationships and links between the independent and dependent variables were discussed and logical conclusions made. Inferential statistics were used; correlation coefficients and ANOVA to test hypotheses and provide statistical relationship of variables.

Table 3.3 Data analysis techniques per objective

	Objective	Technique for Analysis
i	To establish how grades scored in KCSE influence trainees' enrolment in public TVETs	Correlation coefficient
ii	To establish how socioeconomic status influences enrolment of trainees in public TVETs	ANOVA
iii	To determine influence of courses on offer on trainees' enrolment in public TVETs	ANOVA
iv	To assess the extent to which trainees attitude influence their enrolment in public TVETs	Correlation coefficient

The data collected for each objective was analysed as indicated by table 3.2. The hypotheses were tested with inferential statistics outlined in table 3.2, a significance level of 0.05 indicated that there was 5% risk of concluding that a difference exists when there is no actual difference. The analysed data was then presented through tabular representation of frequency tables, pie charts, bar graphs, percentages and means for each variable.

3.8 Ethical Considerations

Ethical issues relate to the privacy of participants, voluntary nature of participation, consent and maintenance of confidentiality of individuals who provide data or identifiable participants and their anonymity (Saunders & Lewis, 2017). The researcher was guided by a number of ethical principles, no harm was done to the respondents as a result of their participation in the research; the respondent's right to privacy was

respected and no undue pressure was put on the respondents. Respondents were provided with sufficient initial information about the survey and were able to give their informed consent concerning participation and the use of data. Permission to conduct the survey was obtained from respective authorities such as the NACOSTI and the researcher-maintained confidentiality by using the data gathered exclusively for academic purposes.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 introduction

This chapter covers; introduction, questionnaire return rate, demographic information of principals, demographic information of instructors, demographic information of trainees and hypothesis testing based on the hypotheses derived from the objectives of the study.

4.2 Questionnaire return rate

Questionnaire return rate is the proportion of the questionnaires returned after they have been issued to the respondents (Bandara & Morton, 2012). Table 4.1 shows the questionnaire return rate for the study.

Table 4.1 Questionnaire return rate

Category of Respondent	questionnaires issued	questionnaires returned	percentage (%) return rate
Instructors	30	30	100
Trainees	331	331	100
Total	361	361	100

All the respondents filled and returned the questionnaires on the same day they were administered. The return rates were 100% and hence deemed quite adequate for data analysis. Bandara and Morton (2012), states that a response rate of above 60% is adequate for social sciences studies.

4.3 Respondents' demographic data

The researcher enquired to know the demographic data of the principals, trainers and trainees so as to link the information to the study variables and the objectives of the study. The information provided is presented in this section.

4.3.1 Demographic data of principals

The nature and characteristics of principals in this study was based on gender of principals, principals' duration served, highest qualification and institution the principal obtained the qualification. The study established the response rate by duration served, highest level of education, whether the principal studied in TVET and the professional or academic qualification that enabled him or her to become a principal in TVET. Gender of the principal was identified because if all principals are of same gender, this is likely to create negative attitude towards TVETs for the gender that is not represented and hence influence enrolment of that gender not represented negatively and the one with higher representation positively enabling more trainees of that gender to enroll. Principals' duration served in a particular TVET is supposed to point to the fact that the principal has knowledge of determinants of enrolment in that particular TVET. Highest qualification would be pointing towards opportunities for furthering studies in that line of career while the institution the principal studied would motivate more trainees to enroll if it was a TVET institution since it would be indicating that studying in TVET has value and graduates of TVET have equal opportunities to employment with regard to other institutions of learning. The study established the response rate of principals in table 4.2

Table 4.2 Percentage demographic characteristics of the principals in TVETs

		Frequency	Percent
Gender	Male	8	66.7
	Female	4	33.3
Duration served as a principal	1-5 Years	10	83.3
	6-9 Years	1	8.3
	10-14 Years	1	8.3
Highest level of education	Diploma	1	8.3
	Degree	5	41.7
	Masters	6	50.0
Did you study in TVET	Yes	4	33.3
	No	8	66.7
Profession or academic qualification enabled to become a TVET principal	Diploma	1	8.3
	Degree	8	66.7
	Masters	3	25.0

Table 4.2 shows that, majority of the principals were males (66.7 percent). This could create negative attitude to prospective female trainees making them not to enroll in TVETs since they may take TVET courses to be a preserve for males in the community. Majority of the respondents had served for a period of 1-5 years in the institution as represented by 83.3 percent, followed by those served 6-9 years and 10-14 years both at 8.3 percent. This meant that the principals had been in the TVET institutions long enough to understand the determinants of enrolment in their institutions hence were able to give relevant information pertaining enrolment. Enrolment trends in a given institution are an

indicator of the way the community views the institution. High enrolment would be pointing out that the communities' needs are being met by the TVET institution while low enrolment may point out that there is no value addition for those studying in that institution.

The study revealed that majority of the principals had a Masters' degree as their highest level of education as at 50.0 percent, degree at 41.7 percent and diploma 8.3 percent respectively. The implication is that the principals had good managerial skills hence were able to find out the determinants of enrolment in their institutions and come up with remedy to increase the population. Also, trainees are motivated to realize that taking TVET oriented courses does not limit a person from furthering studies and attaining higher academic qualifications which can lead to employment in higher positions.

Majority of the principals did not take their studies in TVETS as represented by 66.7 percent while those who studied in TVETs were at 33.3 percent. This might be an indicator that TVET institutions have been ignored for a long time hence had not produced many graduates who could be employed as principals. It can also be double edged in that the trainees may be motivated to enroll in large numbers and attain high qualifications to outcompete those who have not studied in TVETs.

The study indicated that majority of the TVET principals had attained degree level as their high academic qualification to secure the job as a TVET principal as represented by

66.7 percent, masters at 25.0 percent and diploma level at 8.3 percent. Those who have masters continued to further their studies while in their capacity as TVET principals most likely for professional development and growth. This can be due to the fact that the concept of TVET had not been assimilated the communities and there were few people who knew about TVETs and the fact that studying to gain high qualifications in technical skills is equally lucrative as studying to get high qualifications in academic related courses.

Length of service as principal in current station and enrolment

The duration the principal has stayed in a particular TVET institution could influence enrolment due to leadership style and rapport created between the instructors, support staff, students and the entire community. When length of stay is more, the principal would be in a better position to understand the determinants of enrolment in that institution and would manipulate well the determinants to raise the enrolment. The researcher sought to know the duration the principals have been in each TVET institution sampled for the study. The results obtained are shown in table 4.3

Table 4.3 Correlation between length of service as principal and enrolment grades of trainees in TVET's

		How Long Have You Served as Principal in This Institution	Does The Grades Stated Above Influence the Course the Trainee Is Admitted To
How Long Have You Served As Principal In This Institution	Pearson Correlation	1	-.188
	Sig. (2-Tailed)		.559
	N	12	12
Does The Grades Stated Above Influence The Course The Trainee Is Admitted To	Pearson Correlation	-.188	1
	Sig. (2-Tailed)	.559	
	N	12	12

$H0_1$: There is statistically significant relationship between how long one as served as the principal and if grades scored influence enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs).

H1: There is no statistically significant relationship between how long one as served as the principal and if grades scored influence enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs).

Since P value is .559> P=.05, we reject HO_1 and conclude that there is no statistically significant relationship between how long one as served as the principal and if grades

scored influence enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs).

The Pearson correlation is -.188 indicating that we have a negative Pearson correlation relationship between the two variables. Therefore, the length the principal has stayed in a particular TVET does not have influence on the courses the trainees take because the courses trainees take are predetermined by grade scored at secondary level and no initiative of tailoring courses to suit grade scored in last national examination has been taken. The length the principal stays could influence the courses trainees enroll in if the principal takes the initiative of doing needs assessment for the community and advice trainees on enrolling in the courses that fulfill and meet the needs of a given community. This would also have positive impact on enrolment when the incumbent trainees gain value based and demand driven courses from the insight of principal due to his or her long length of stay in the institution.

4.3.2 Demographic characteristics of trainers

The nature and characteristics of trainers in this study was based on gender, age, training duration in a particular TVET institution and highest level of education since this could influence the enrolment of the institution based on competence of the trainers. Gender of trainers' influences enrolment due to the attitude that may be formed by the prospective trainees and community if the trainers are predominantly male, then the female trainees would shy off from enrolling in the TVETs hence low enrolment in the institutions. Age of trainers would equally have the same effect on enrolment influencing both males and

females' enrolment, if majority of trainers are aged, the prospective trainees would form the attitude that TVET courses are for the aged hence few would enroll in the TVETs. Training duration may influence enrolment in that the trainers would have known the determinants of enrolment based on the needs of the community and trainees and would offer advice to parents, guardians and prospective trainees on courses to enroll to which would enhance enrolment while fulfilling the needs of the trainees and the community. The level of education of trainers would influence enrolment since it is an assurance to trainees that they can still further their studies in this line of TVETs and get higher academic qualifications like bachelor's degree, masters and even PhD which will make them to be equally competitive in higher position in employment like those in academic oriented courses. The results of demographic characteristics sought by the researcher are indicated in table 4.4

Table 4.4 Percentage Demographic Characteristics of the trainers

		Frequency	Percent
Gender	male	17	56.7
	female	13	43.3
Age	20-30 years	10	33.3
	31-40 years	15	50.0
	41-50 years	5	16.7
Training duration	1-5 years	22	73.3
	6 years and above	8	26.7
Level of education	certificate	1	3.3
	diploma	6	20.0
	higher diploma	4	13.3
	degree	14	46.7
	masters	5	16.7

Table 4.4 reveals that majority of the respondents were male as represented by 56.7 percent while 43.3 were female. The interpretation is that, females have no interest in TVET oriented careers since most of the courses involve manual work which females detest hence bringing the gender imbalance in the trainers within the TVETs. The fact that majority of the trainers are males has negative influence on female trainees since

they would feel misplaced and can easily drop out if not well focused. Even the prospective female trainees would hesitate in choosing TVET oriented careers which would translate to low enrolment in TVETs.

Majority of the trainers are aged between 31-40 years as indicated by 50.0 percent, followed by those aged 20-30 years at 33.3 percent and 41-50 years at 16.7 percent. The age bracket of 20 – 30 years and 31 – 40 years that forms the majority of trainers at consolidated percentage of 83.3 is the youthful stage which can make a great difference in TVETs in terms of enrolment as they serve as role models for the youth. This could encourage more youths to enroll in TVETs hence raise enrolment as they pursue TVET oriented careers to be employed in a similar manner to the youthful trainers. When the attitude of the enrolled trainees is positive that the TVET career line is for the youth, this by extension will influence the parents' decision and decision of entire community hence every year the number of secondary graduates who choose to enroll in the TVETs would swell leading to increase in enrolment in TVETs.

Trainers who had been training in the institution for a period of between 1-5 years were many as represented by 73.3 percent while those with 6 years and above followed at 26.7 percent. The implication is that most had been recently employed when viewed from the point of their age verses the length of service in the TVET meaning that, there could be a time when TVET institutions lacked adequate trainers which may be a cause of low enrolment in the TVETs. With the increased number of trainers of youthful age, enrolment is likely to improve in future. Adequate number of trainers in a given institution is positive and an impetus for attracting would be trainees to enroll in the institution.

The study indicated that majority of the respondents had attained degree as their highest academic qualification as at 46.7 percent, diploma at 20.0 percent, master's level at 16.7 percent with higher diploma at 13.3 percent and certificate at 3.3 percent respectively. This can be attributed to the fact that most trainers are employed from universities and colleges that teach technical oriented courses basically because most trainees in the TVETs are those who performed poorly in national examinations and mostly are suited for employment in other fields other than being instructors in a learning institution. Opportunities need to be created for graduates of technical and vocational training institutions to further their studies to gain higher qualifications and secure employment in TVETs

4.3.3 Demographic data of trainees

The researcher sought to know how trainees' demographic characteristics influence enrolment in the TVETs. The characteristics of trainees sought by the researcher included trainees' gender, age, level of education before enrolling in TVET, grade scored in KCSE where applicable, course enrolled to do and if the trainee would have enrolled in TVET if had scored a higher grade. The gender of trainee was sought to find out whether TVETs have gender parity in trainers since this would influence enrolment. Trainees' age is important because most courses in TVETs include use of strength and manual work hence the need for trainees to be chronologically mature to handle such type of tasks in the cause of training. Level of education before joining TVET influences enrolment in TVETs because initially, primary dropouts and primary graduates dominated the TVETs to be equipped with technical and vocational skills but currently, due to the government policy of 100% transition from primary to secondary, this may reduce enrolment. It is

also important to note that some trainees enrol in TVETs to upgrade their skills after working for a given duration hence might have graduated from the tertiary institutions hence increasing enrolment. The course enrolled to take is necessary for the researcher to know since courses offered influence enrolment positively or negative depending on their demand in the labour market and finally, trainees are enrolled into TVETs depending on the grade scored in the last national examination. When graduates score well in secondary school level, they opt for academic oriented careers which reduced enrolment in TVETs. The results of demographic characteristics of trainees are presented in Table 4.5

Table 4.5 Percentage demographic characteristics of trainees

		Frequency	Percent
Gender	male	213	64.4
	female	118	35.6
Age	12-16 years	5	1.5
	17-21 years	174	52.6
	22-26 years	109	32.9
	27 and above	43	13.0
Level of education before joining current institution	KCPE	47	14.2
	KCSE	280	84.6
	Diploma	4	1.2
Grade scored in KCSE	C +	28	8.5
	C and below	303	91.5
Course enrolled	diploma	23	6.9
	certificate	127	38.4
	artisan	181	54.7
Would you have enrolled in TVET having higher grade than scores	no	255	77.0
	yes	76	23.0

Majority of the trainees were male as represented by 64.4 percent while the female at 35.6 percent. This revealed that girls who performed equally well as the boys are not interested in TVET courses bearing in mind that at the level of KCPE and KCSE, the gap between boys and girls is narrow. This is attributed to the 100% transition policy. From

the literature reviewed on Kenya National Examination Council (KNEC) on Essential Statistics, more girls than boys scored the grades C to E, which is the grade designated for TVETs leading to the expectation of more female enrolment in TVETs than males which was not the case observed in the study. This can be attributed to poor attitude of the prospective female trainees towards TVETS and the courses offered in TVETs as a preserve for male trainees. As seen in the demographic characteristics of the principals and trainers, majority were males and this coincides with the trainees' gender that majority are also males. This points to the fact that females are not interested in technical courses since most courses offered in TVETs are either associated with males or are not seen as so attractive and appealing to females a trend which may point towards negative attitude on the side of females and the community in general.

Trainees who are aged between 17-21 years represented higher numbers as at 52.6 percent, 22-26 years at 32.9 percent, 27 and above years at 13.0 percent and 12-16 years at 1.5 percent respectively. The age bracket of 12 – 16 years had the lowest number of trainees represented by 1.5 percent because of the government policy of a hundred percent transition from primary schools to secondary schools from the year 2019. TVETs stopped receiving KCPE graduates or received fewer KCPE trainees as most joined secondary schools through enforcement of this policy while the age bracket of 17 – 21 years and 22 – 26 years was the majority represented by amalgamated percentage of 85.3 since this presented the age bracket of most KCSE graduates. The government of Kenya also has also contributed significantly to the enrolment of this age bracket to TVETs since 2018 when the TVET trainees were placed by KUCCPS free of charge in various TVET institutions and the policy of continuous intake of KCSE graduates into TVETs.

Majority of the respondents had attained KCSE as their highest Level of education before enrolling in the current institution as represented by 84.6 percent, KCPE at 14.2 percent while 1.2 percent had attained diploma as their highest level of education before enrolling in the current institutions. This can be attributed to the 100% transition policy from primary to secondary and the free day secondary education that enabled learners from poor socioeconomic backgrounds to attend secondary schools. The trainees with KCPE certificates will eventually be phased out from TVETs. The small number represented by 1.2 percent with diploma is for the group that is enrolled in refresher courses for skill upgrading and also those enrolled to further attain skills to align themselves with skills demanded in labour market and complement skills in demand in the community. This was confirmed by analysis of the admissions registers in the TVET institutions selected for the study.

Majority of the trainees involved in the study had scored C and below as represented by 91.5 percent while those who had scored C+ and above were represented by 8.5 percent. This number of trainees with C+ and above was very small since there were no special courses tailored for prospective trainees with C+ and above unlike the grades C constant and C- that is supposed to do Diploma course, D+ is allocated certificate level course and D plain to grade E start at artisan level courses as stated by the Kenya Universities and Colleges Central Placement Service (KUCCPS). This allocation of course levels is discriminating C+ and above is limiting enrolment in TVETs. The distribution of grades for the trainees is also affirmed when the admissions register is analyzed for grade scored by trainees in KCSE.

The study revealed that those enrolled to pursue artisan were the majority as represented by 54.7 percent followed by those doing craft certificate at 38.4 percent and those enrolled for diploma as at 6.9 percent. This observed distribution of courses in the TVET trainees enrolled confirms that, those who perform poorly in KCSE are the ones expected to be enrolled in TVETs as found out in the literature reviewed for many countries (Agodini & Novak, 2014); Moenjak & Worswick, 2013). The diploma trainees are very few in this regard meaning that the C plain KCSE graduates opt for academic oriented courses than technical and vocational courses hence the low enrolment in TVETs. This could be due to the notion that TVET institutions are for those who perform poorly in KCSE and those with grade C constant and above do not wish to be associated with such institutions.

The study indicates that the trainees would not have enrolled in TVETs if they had scored a higher grade than one scored in high school as represented by 77.0 percent while 23.0 percent could have enrolled. This confirms the negative attitude associated with TVETs in the community and individuals as stated by Saif and Sharjah (2016), Reddy and Devi (2011), Alam and Forhad (2020). The poor attitude still holds up to date and is a major cause of low enrolment in the TVET institutions.

4.4 Influence of grade scored in last examination on enrolment in TVET

The grade a candidate scores in last national examination influences the next level of education and individual and the course enrolled in. formally, the trend had been that when candidates sit for Certificate of Primary Education (CPE) or the Kenya Certificate of Primary Education (KCPE) depending on the system of education at that time, the

graduates who perform better are offered a chance to proceed to secondary school in Kenya, while those who score poorly miss form one places. This group would either be absorbed in provision of unskilled labour to the community or enroll in TVETs at the level of village polytechnics to learn some skills and take a direction of less prestigious careers within the community. The government of Kenya then moved in the direction of Universal Primary Education (UPE) in reaction to national development plan (Margaret & Ndinga, 2015) and the re-introduction of Free Primary Education (FPE) in 2003 which was followed by the Free Day Secondary Education and the 100% transition policy which minimized dropout rates at KCPE level thus enabling all KCPE graduates to have a chance to proceed to secondary school. TVETs were then expected to enroll KCSE graduates who scored grades C constant to E. This caused the government to include TVET placement in Kenya Universities and Colleges Placement Service (KUCCPS). Secondary education is used by government placement service body, KUCCPS, to place the secondary graduates in various tertiary institutions of higher learning. The criteria is clear in KUCCPS that grade C+ and above can apply for bachelor's degree courses or diploma course whichever they prefer in the universities colleges or TVETs, while those who scored C constant to grade E can apply for diploma, certificate and artisan courses in universities, colleges and TVETs (Muranguri, KUCCPS, 2020). The TVETs also have been enrolling trainees directly without passing through the placement service through own initiative of advertising and the prospective trainees visiting TVET of their own choice to seek for admission. The researcher sought to know whether TVETs enroll trainees with the university entry grades or stick to the grade bracket designated and

whether they still enroll those with KCPE certificates and those seeking to further education having already graduated from TVETs.

4.4.1 Enrolment of trainees in relation highest level of education

The researcher sought to know the entry point of trainees in TVET in relation to level of education before enrolling in TVET so as analyze the courses trainees enroll in based on their entry point of level of education. The researcher presented an item for them to give responses. The findings are summarized in figure 4.1

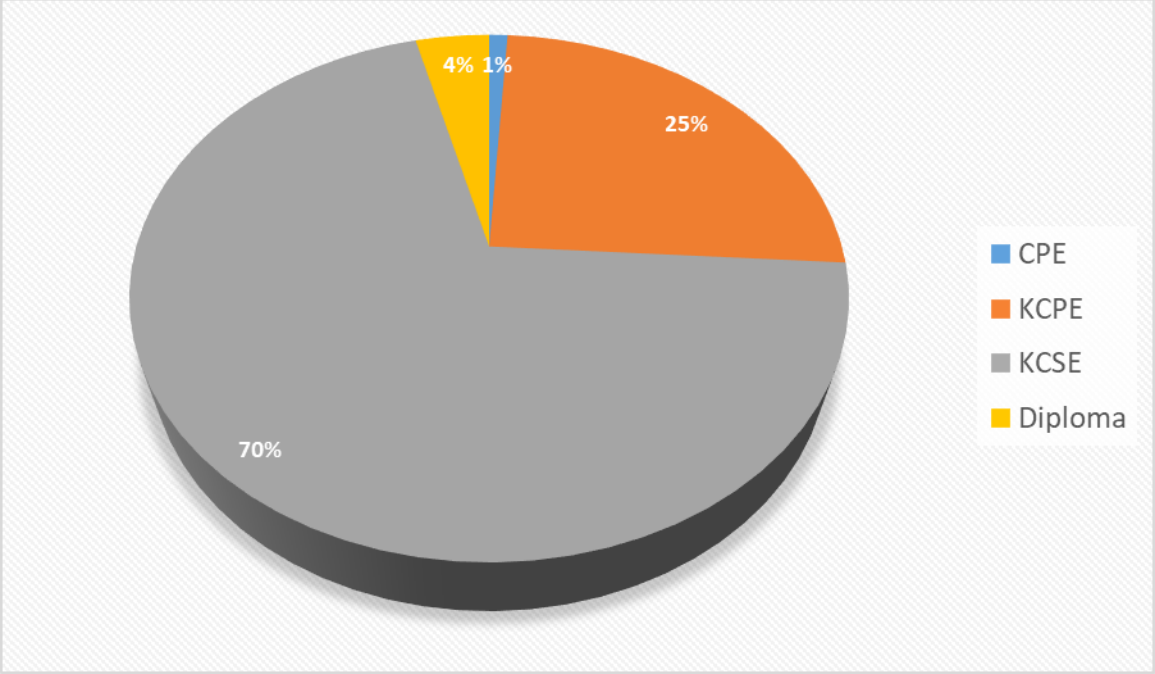

Figure 4.1 Percentage enrolment of trainees in relation to level of education

Figure 4.1 shows that, majority of trainees were enrolled in TVET at education level of Kenya Certificate of Secondary Education (KCSE) as represented by 70% of the enrolled

trainees. These are the trainees enrolled in to the TVETs through government placement service, the Kenya Universities and Colleges Central Placement Service (KUCCPS) since 2018 when the government-initiated placement of trainees in TVETs through KUCCPS and those with KCSE grade only due to the 100% transition policy. KCPE graduates enrolled in TVETs were 25%, the ones enrolled before the 100% policy on transition from primary to secondary school. Certificate of Primary Education (CPE) are those who had done primary education in the old system of education and had not joined any tertiary institution and eventually decided to enroll in the TVETs. These trainees were represented by 1% while those who enrolled with diploma were 4% and are the group that had come to do higher diploma in the courses they had taken and also those taking short courses as shown by brochures through document analysis. All these groups contribute to overall enrolment in the TVETs.

4.4.2 Enrolment of trainees in relation to grade scored in KCSE

The researcher sought to know whether the TVET institutions enrolled all trainees regardless of the grade scored in KCSE without Sticking to enrolling trainees who scored grades C constant to E without enrolling C+ and above in their institutions may impede attaining full capacity in enrolment. In addition to this, KUCCPS clearly places placement criteria for TVET as those who score grade C constant to grade E. the results of distribution by grades scored in KCSE are shown in Figure 4.2

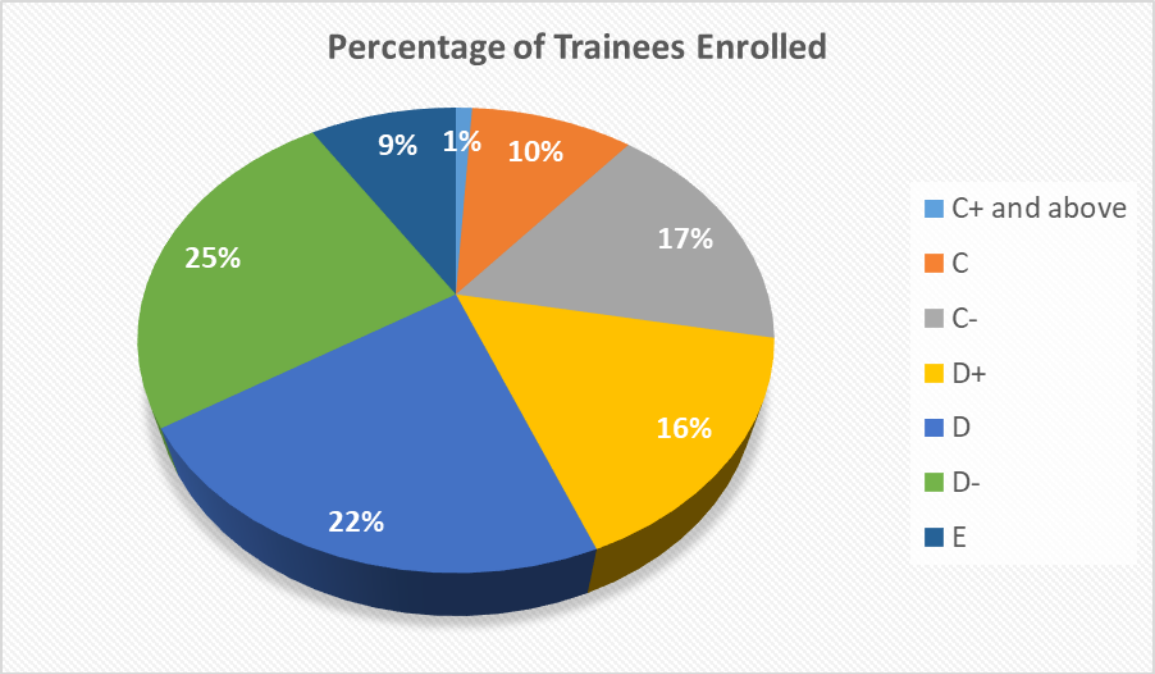

Figure 4.2 Distribution of trainees enrolled by KCSE grade scored

The figure 4.1 indicates that, only 1% of trainees enrolled had scored C+ and above, 10% had scored C constant and 17% had scored C- making a total 28% enrolled for various diploma courses according to the Ministry of Education (MoE) guidelines and criterion for placement of trainees in universities and tertiary institutions. This has the implication that majority of KCSE graduates with C+ and above, C constant and C- opt to enroll in universities and other tertiary institutions of learning to pursue academic oriented courses for such career pathways while those who scored grades D+, D constant, D- and E are 16%, 22%, 25% and 9% respectively making a total of 72% for those placed to take Certificate and Artisan Courses in the TVET institutions according to the MoE trainee placement guidelines and criterion. This distribution is in line with research done by Agrawal (2012) in India, Agodini and Novak (2014), Moenjak and Worswick (2013) in United States and Kumiko (2016) in Japan who concurred that those who score low

grades are likely to be enrolled in TVETs to pursue technical courses. The distribution of trainees based on grades scored in KCSE attests to the fact that there is negative attitude towards TVET institutions and strengthens the notion that TVETs are for those who score poorly in academics (Agrawal, 2012). In Kenya, TVETs were a reserve for primary school dropouts and those who scored low grades in secondary education to the extent that they can not be enrolled in any of the other academic oriented courses in tertiary institutions which are deemed to be competitive (Muranguri, KUCCPS, 2020). This cadre of trainees who score grades C constant, C-, D+, D, D- and E enroll in TVETs to take diploma, certificate courses and artisan courses. A new trend has started unveiling since 2019 up to date as the candidates who score C+ and above snub university degree courses in favour of TVET courses changing the trend of low grades being absorbed by TVETs according to Muranguri, KUCCPS (2020) and Igadwah (2021). This is a departure from the norm which could be attributed to large numbers of un-employed university graduates who are finding it difficult to compete for technical jobs with TVET graduates.

4.4.3 Enrolment of trainees with grade C+ and above in relation to TVET capacity

The researcher sought to know whether enrolling of trainees who scored grades C+ and above would positively influence enrolment in the TVETs. The items were posed to the respondents. The responses of the principals are shown in table 4.6

Table 4.6 Correlation between enrolment rates compared to capacity of TVET and enrolment of trainees with grades C^+ and above

		how is enrolment rate in your institution compared to its capacity	Are there times you enroll trainees with C+ and above in KCSE
How is enrolment rate in your institution compared to its capacity	Pearson Correlation	1	-.222
	Sig. (2-tailed)		.488
	N	12	12
Are there times you enroll trainees with C+ and above in KCSE	Pearson Correlation	-.222	1
	Sig. (2-tailed)	.488	
	N	12	12

H_1: There is statistically significant relationship between enrolment rate, capacity of TVET institution and enrolment grades of C+ and above of the trainees in TVET's.

H_{01}: There is no statistically significant relationship between enrolment rate, capacity of TVET institution and enrolment grades of C+ and above of the trainees in TVET's

Since P value is .448> P=.05, we reject HO_1 and conclude that there is no statistically significant relationship between how is enrolment rate compared to its capacity and enrolment grades of C+ and above of the trainees in TVET's

The Pearson correlation is -.222 indicating that we have a negative Pearson correlation relationship between the two variables. Enrolment rate is not influenced by intake of trainees who scored grades C+ and above possibly because there are no special courses tailored for such grades which appears to discourage those with such grades from joining TVETs in large numbers hence having negative effect on enrolment rate. The enrolment in TVETs largely depends on the trainees who scored grades C- to grade E since those

enrolled with grades C+ and above have negligible influence on achieving full capacity of enrolment in TVETs.

4.4.4 Performance of trainees in the TVETs in relation to grade scored in KCSE

The researcher sought to know whether the trainees enrolled with C+ and above grades in KCSE performed better in the courses they were enrolled in than those with C constant and C- since this could influence enrolment. The responses are shown in figure 4.3

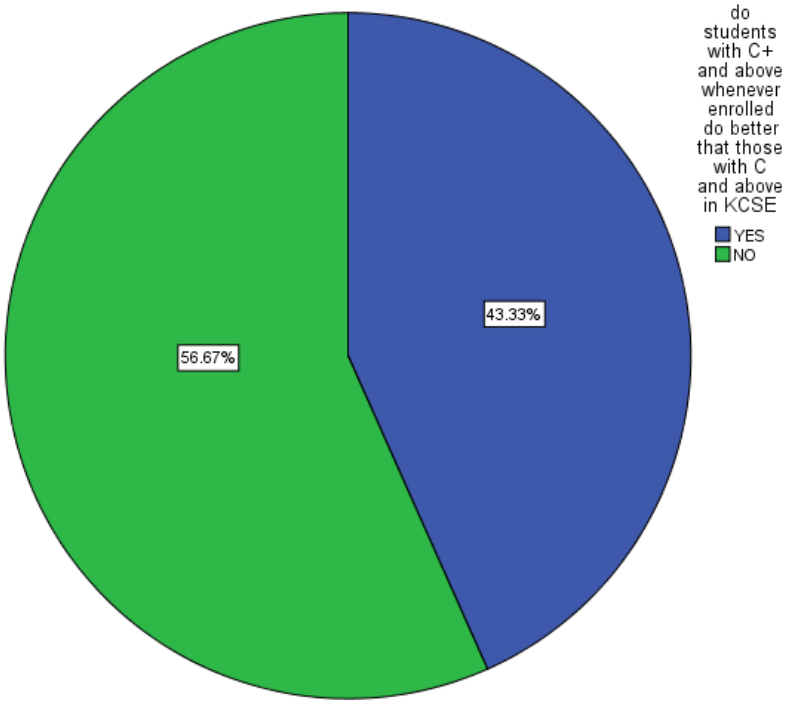

Figure 4.3 Percentage performance of C+ trainees compared to C and below

Figure 4.3 shows that, majority of the respondents disagreed that trainees enrolled who had scored C+ and above do better than those with C and below in KCSE as represented by 56.67 percent while 43.33 percent agreed. This could be so since they are covering work which is being taught at the phase and level of low scorers hence, they get bored

and disconnect which is reflected by the performance. Environmental effect influences performance in the fact that, when there is no competition, trainees tend to relax and perform just like the majority. The performance of trainees who joined TVETs with C+ and above being at per with trainees taking diploma who had scored C constant and C- can influence future enrolment negatively by discouraging that particular cadre of trainees from enrolling in TVET institutions.

4.5 Influence of Socioeconomic status on trainees enrolment

The researcher sought to find out how socioeconomic status of trainees influenced their enrolment in Technical Vocational Education and Training (TVET). This was done by using items that are indicators of socioeconomic status that included the level of education of their parents or guardian, level of income of parents represented by financial ability of parents and guardians, ability of parents or guardians to pay school fees and ownership of various items in the trainees' homes and occupation of parents or guardians. The responses were then used to establish how socioeconomic status influences enrolment in TVET institutions.

4.5.1 Level of education of parents/guardians

The researcher sought to find out from the trainees the level of education of their parents or guardians since this would influence enrolment of trainees in TVETs. Parents or guardians who are highly educated are likely to ensure their children access education because they know the benefits of being educated. The trainees were asked to indicate the level of education of their parents. The responses are shown in figure 4.4

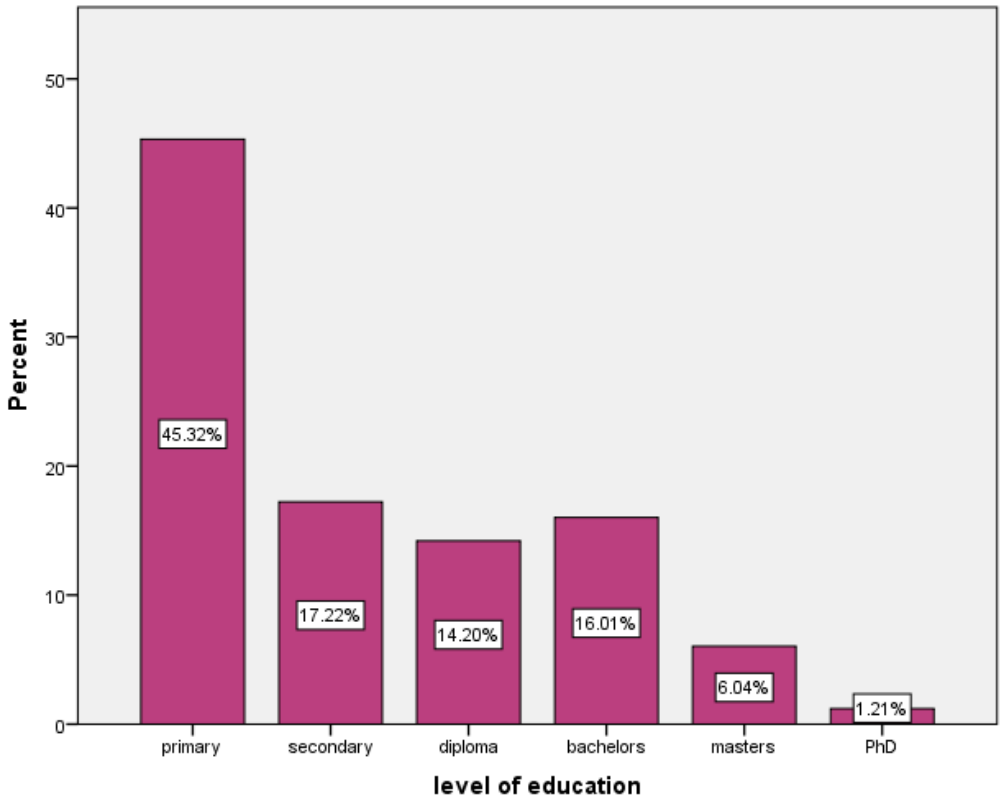

Figure 4.4 Level of education of parents/guardians

The study revealed that majority of the parents/guardians had attained primary certificate as their highest level of education as represented by 45.32 percent, followed by those who attained secondary certificate at 17.22 percent, bachelor's degree at 16.01 percent, diploma at 14.20 percent, master's level at 6.04 percent and those who had obtained PhD at 1.21 percent. Since most of the trainees' parents and guardians (45.32%) only managed to complete primary level of education, it may not be possible for them to have experienced the benefits of being highly educated and hence would fail to support their sons and daughters to enroll in institutions of higher learning, TVETs included. This is in line with the findings by Arregle, and Mari (2019), Madhavani and Sisodia (2019), in their studies on enrolment of trainees in TVETS in Malaysia who had found out that majority of trainees joining TVETS are from parents and guardians with low economic

status, low education and occupational background. The middle education level of parents and guardians with secondary level of education (17.22%), certificate and diploma (14.20%) would encourage their children to enroll in TVETs while the parents with bachelors (16.01%), masters (6.04%) and PhD level of education (1.21%) are likely to encourage their children to enroll in academic oriented careers in a bid to satisfy their friends expectations of giving "the best" education to their children. In reference to the level of education of parents and guardians, highly educated parents and guardians would mean reduced enrolment in TVETs since their children would be enrolled in academic oriented institutions, moderately educated parents and guardians would lead to increased enrolment in TVETs since they will encourage their children to enroll in TVET to acquire certificates and diploma after performing poorly in KCSE (Ouma & Onsongo, 2020). The uneducated parents and guardians and the ones with low level education would not bother much with enrolling their children for further education hence would negatively influence enrolment in TVETs. This group of parents and guardians normally view their children who a form four leavers as highly educated and therefore encourage them to get employed to assist in generating income for the family.

4.5.2 Influence of employment status and adequacy of income on enrolment

The researcher sought to know from the trainees the employment status of their parents or guardians and whether the income the parents/guardians earned was adequate. The trainees responded to the items and the responses are presented in table 4.7

Table 4.7 Employment status of parents /guardians and adequacy of family income

		Frequency	Percent	Valid Percent	Cumulative Percent
Employment status	Employed	31	9.4	9.4	9.4
	Self Employed	70	21.1	21.1	30.5
	Unemployed	180	54.4	54.4	84.9
	Not Applicable	50	15.1	15.1	100.0
Adequacy of family income	Very Adequate	18	5.4	5.4	5.4
	Adequate	51	15.4	15.4	20.8
	Inadequate	212	64.0	64.0	84.9
	Not Applicable	50	15.1	15.1	100.0

The study indicates that majority of the parents/guardians are not employed as represented by 54.4 percent thus low living standards, self-employed followed at 21.1 percent, not applicable at 15.1 percent and those employed at 9.4 percent. For those employed 25.8 percent had formal employment while 74.2 percent had informal employment

The adequacy of total income in most families based on standards of living was inadequate as represented by 64.0 Percent; those who felt income was adequate were represented by 15.4 Percent, not applicable, 15.1 Percent and very adequate 5.4 Percent. According to Arregle & Mari (2019), trainees who come from families with adequate income are less likely to enroll in TVETs while those who come frome families with inadequate income are more likely to enroll in TVETs. Adequacy of income in families is centrol since those who can afford to take their children to pursue courses of their own choice which are in academic oriented careers will not bother about TVET careers due to the aspect of keeping to their standard of high living standards. Akarue and Obavwunuto

(2019) in their study in Nigeria on socioeconomic status level in the society found out that, people will choose career based on income earned and to satisfy their friends and associates who view them as of high socioeconomic status. Income levels of parents or guardians were also found to influence enrolment in TVETs in Malaysia in a study carried out by Madhavani and Sisodia (2019). They found out that majority of trainees enrolling in TVETs are from families whose income and education level is low and consequently poor occupational background. With reference to the studies cited and the findings of this research, socioeconomic status has marked influence in enrolment in TVETs. Parents or guardians level of income and socioeconomic status if low causes parents and guardians to strain to cater for their basic needs hence would not think of enrolling their children in TVETs and other institutions of learning after graduating in secondary level of education

The researcher performed a correlation tabulation to show the relationship between socioeconomic status (parental/guardians level of education) and trainees enrolment. The results of the correlation are shown in Table 4.8

Table 4.8 Correlation between parents'/guardians' education level and trainees enrolment

	Parent level of education	Trainee course enrolled in

Parent level of education	Pearson Correlation	1	.208**
	Sig. (2-tailed)		.000
	N	331	331
Trainee course enrolled in	Pearson Correlation	.208**	1
	Sig. (2-tailed)	.000	
	N	331	331

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.8 shows relationship between socioeconomic status (parents'/guardians' level of education) and trainees' enrolment in public TVETs. The P Value is 0.00<P=0.005 shows that there is statistically significant relationship between parents' or guardians' level of education and trainees' enrolment in public TVETs since the two variables have a positive Pearson Correlation of 0.208, the implication is that parents' or guardians' level of education positively influences enrolment leading to increased enrolment or negatively influences enrolment leading to low enrolment in public TVETs.

The researcher also performed a correlation between socioeconomic status (employment status) and trainees' enrolment in public TVETs to find out the relationship that exists between employed or unemployed parents or guardians and enrolment. The results of the correlation are shown in Table 4.9

Table 4.9 Correlation between employment status and trainees' enrolment

	Trainee course enrolled in	Parent source of income

Trainee course enrolled in	Pearson Correlation	1	.024
	Sig. (2-tailed)		.658
	N	331	331
Parent source of income	Pearson Correlation	.024	1
	Sig. (2-tailed)	.658	
	N	331	331

Table 4.9 is a correlation showing the relationship between socioeconomic status (employment status) and trainees' enrolment in public TVETs. Since P=0.658>P=0.005, the implication of the Pearson Correlation Coefficient is that there is no statistically significant relationship between parents' or guardians' employment status and trainees' enrolment in public TVETs. The two variables have a positive Pearson Correlation of 0.024 meaning that, employment status as a socioeconomic indicator does not increase or decrease enrolment of trainees in TVETs. This is strengthened by the fact that parents or guardians do not solely depend on employment income to enable the trainees enroll in TVETs but can source financial assistance from well-wishers, grants, donations, Community Development Fund (CDF), bursaries and fund raising to enable the trainees enroll and meet their financial obligations in the TVET.

The researcher also performed a correlation between socioeconomic status (adequacy of family income) and trainees' enrolment in public TVETs to find out the relationship that exists between adequacy of parents or guardians' income and enrolment. The results of the correlation are shown in Table 4.10

Table 4.10 Correlation between adequacy of family income and trainees' enrolment

	course enrolled in	adequacy of income

course enrolled in	Pearson Correlation	1	-.016
	Sig. (2-tailed)		.774
	N	331	331
adequacy of income	Pearson Correlation	-.016	1
	Sig. (2-tailed)	.774	
	N	331	331

Table 4.10 is a correlation showing the relationship between socioeconomic status (adequacy of family income) and trainees' enrolment in public TVETs. Since P=0.774>P=0.005, the implication of the Pearson Correlation Coefficient is that there is no statistically significant relationship between adequacy of family income and trainees' enrolment in public TVETs. The two variables have a negative Pearson Correlation of -0.016 meaning that, adequacy of family income as a socioeconomic indicator does not increase or decrease enrolment of trainees in TVETs. This is acceptable because parents or guardians do not solely depend on family income earned to enable the trainees enroll in TVETs but can source financial assistance from well-wishers, grants, donations, Community Development Fund (CDF), bursaries and fund raising to enable the trainees enroll and meet their financial obligations in the TVET regardless of the amount of income they earn, whether adequate or inadequate.

4.5.3 Financial ability of parents and guardians

The researcher sought to find out whether parents or guardians are able to provide all necessary training requirements for their trainees in TVETs. The respondents were asked to indicate whether their parents or guardians are able to provide for all their financial training requirements. The results are presented in Figure 4.5

Figure 4.5 Percentage financial ability of parents on the training requirements

The study revealed that majority of the trainees' parents and guardians have no financial stability to pay for their training requirements as represented by 71.0 percent while 29.00 percent can afford. This means that if the government of Kenya had not considered the TVETs for HELB Loans and Bursaries funding and the grant of 30,000 Kenya Shillings for those enrolled in TVETs, the enrolment would be lower than the observed rate due to inability to cater for the trainees' education in the TVETs. The training requirements include purchasing necessary material for use during the teaching learning process, payment of examination fees, providing daily transport for day scholars, clothes and shoes among other items. The findings are in agreement with studies carried out by Akarue and Obavwunuto (2019), Arregle, and Mari (2019), Madhavani and Sisodia

(2019), Richardson (2002), Adler & Snibbe (2003) and Marcus & Fonseca (2019) who argued that low socioeconomic status limits enrolment in tertiary institutions of learning, TVETs included. It is for this reason that Kenya has included TVET institutions for funding by Higher Education Loans Board (HELB) to enable trainees from low socioeconomic status enroll on TVETs. This support however seems not to be adequate and the issue of enrolment in TVETs requires more attention.

4.5.4 Payment of fees for the trainees by parents and guardians

The researcher also sought to know whether the parents' paid fees for the trainees on time to avoid a scenario where trainees are sent home to collect fees or are barred from sitting for examinations due to non-payment of training dues. The trainees were required to respond to the question whether their parents or guardians pay school fees in good time before they are sent home to collect the dues. The results are shown in Figure 4.6

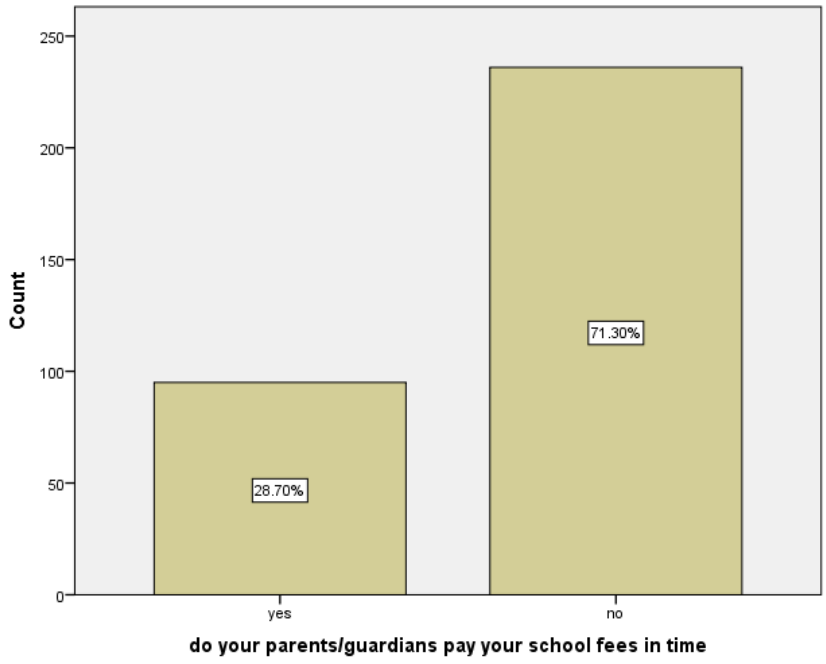

Figure 4.6 Percentage payment of school fees in time by parents/guardians

Majority of the parents do not pay school fees in time as represented by 71.30 percent, only 28.70 percent of the parents pay the dues in good time. This revealed that, most trainees come from the low socioeconomic status families that are working from hand to mouth. Thanks to the government of Kenya for reducing TVET fees from 96,000 shillings to 56,000 shillings and further giving a grant of 30,000 shillings. The remaining amount of 26,000 and subsistence costs are catered by the HELB Loan of 40,000 for those who qualify. This has boosted enrolment and retention rate in TVET institutions to some extent though the enrolment has not reached the intended capacity even with support from well-wishers, Community Development Fund (CDF) bursaries, and assistance from County governments. This gives an insight into the fact that enrolment could be remaining low in TVETs due to financial constraints. Education in tertiary institutions of learning is not a priority in families of low socio-economic background and therefore trainees are likely to forego enrolling in TVETs and opt to be part of unskilled labour in various sectors to supplement income for their families to meet basic needs.

4.5.5 Trainees send home for non-payment of TVET fees

The researcher sought to know whether there are trainees who are sent home to collect dues owed in terms of school fees to the TVET institution. The trainees were required to indicate whether they have ever been sent home due to non-payment of school fees. The findings are represented in Figure 4.7

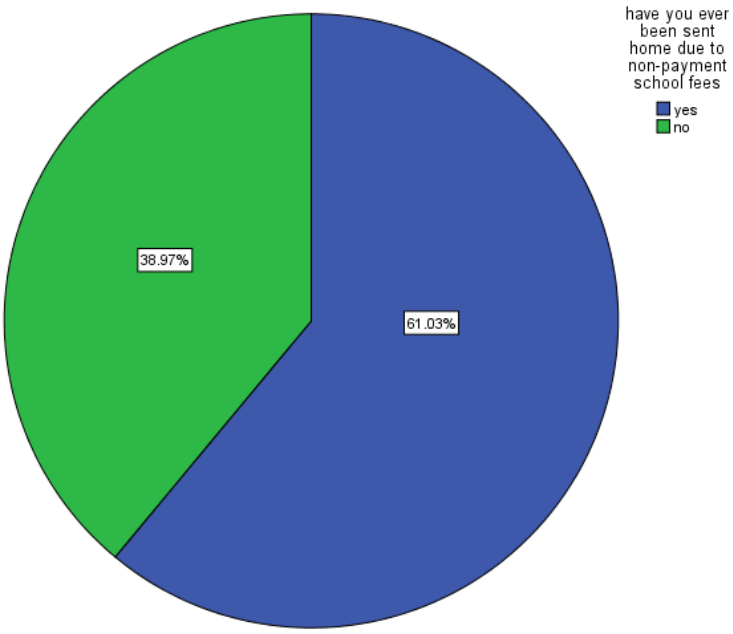

Figure 4.7 Percentage of trainees sent home due to non-payment of school fees

Figure 4.7 shows that 61.03 percent of the trainees have been sent home due to non-payment of school fees while 38.97 percent have not. This is an indication of the fact that most trainees come from family background of poor socioeconomic status. A case that can cause trainees enrolled to drop out of training and fail to complete their studies indefinitely. Trainees detest the idea of being sent home due to non-payment of fees hence for those whose parents cannot promptly clear school fees or maintain the school fees balances at acceptable levels, they opt to drop out and get employment to assist their families by their meagre earnings from unskilled labour. This scenario can also discourage prospective trainees from enrolling in TVETs in fear of the shame of being seen on the roads heading home to collect dues from parents and guardians.

4.5.6 Ownership of assets in the families of TVET trainees

The research sought to know the various assets owned by the trainees' parents and guardians so as to establish socioeconomic status of trainees' background. The assets included bicycle, motor cycle, car and tractor. These were used by the researcher to determine whether the families live a luxurious life. The findings are shown in Figure 4.8

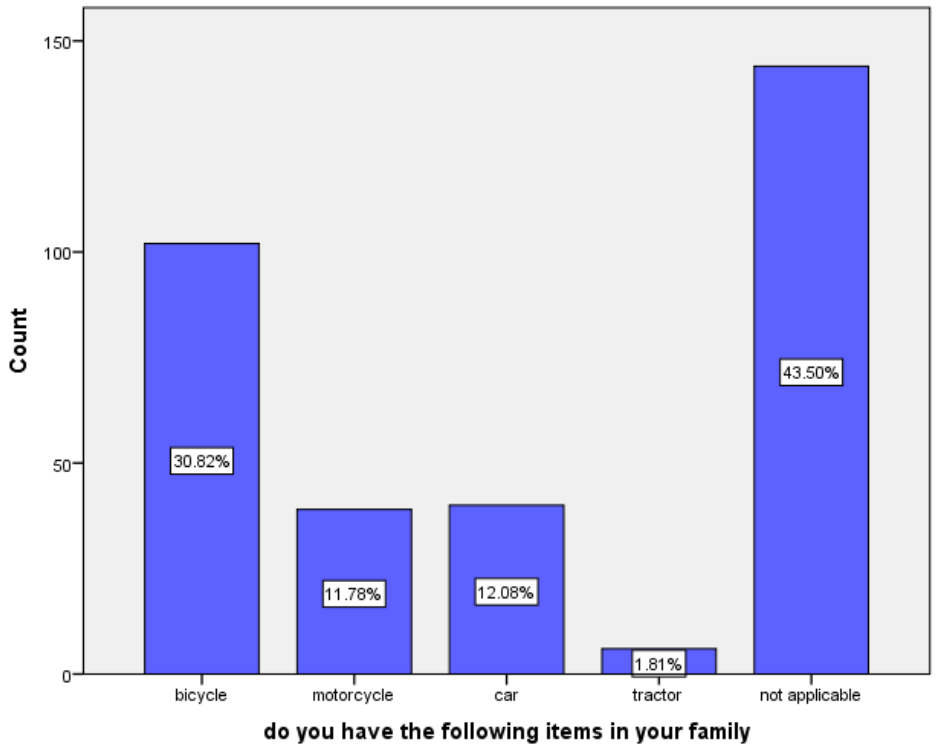

Figure 4.8 Percentage ownership of family items

Majority of the informants do not own any of the listed items in their families as indicated by 43.50 percent who do not own any of the listed items, 30.82 percent own bicycles, those who own a car are 12.08 percent, 11.78 percent motorcycle and 1.18 percent own tractors. This shows that most trainees come from low socioeconomic background and therefore they can hardly support education in addition to catering for

their basic necessities in their homes. No luxurious items owned by a family means a family is struggling to meet basic needs and hence tertiary level education is not that basic need especially if the learner has not performed well to be placed in the university by having scored C+ and above. This definitely reduces enrolment since prospective trainees will not have a chance to enroll in a TVET but will be looking for employment to subsidize income in the family to assist other young brothers and sisters gain basic education since tertiary education is not a priority. Low financial ability limits ownership of luxurious items and only those that support earning towards basic needs are acquired.

4.6 Influence of courses on offer on trainees enrolment in TVETs

The researcher sought to establish how the courses on offer influenced enrolment of trainees in TVET institutions. The items used to collect the data from trainers and trainees on courses on offer included whether the courses offered fulfill market needs, meet trainees' needs, attract trainees and equip trainees with skills for self-employment.

4.6.1 Trainers responses on influence of courses on offer on trainees enrolment

The researcher sought to establish from the trainers' point of view how courses on offer influenced enrolment of trainees in the TVETs by asking them to respond to the items in the questionnaire. Responses by trainers on these items are shown in table 4.11

Table 4.11 Trainers responses on influence of courses on offer on trainees' enrolment in TVETs

	Mean	Std. De.	SA %	A %	D %	SD %
The courses offered fulfill market needs hence more trainees enroll	1.7667	.62606	30.0	66.7	0.00	3.3
The courses offered meet the trainees needs	1.7667	.43018	23.3	76.7	0.00	0.00
The course offered have attracted more trainees	1.9000	.48066	16.7	76.7	6.7	0.00
The courses offered equip the trainees with skills for self-employment	1.7000	.46609	30.0	70.0	0.00	0.00

The descriptive statistics results shown in table 4.11 reveal that trainers agreed at 66.7 percent that the courses offered fulfill market needs hence more enrolment, 30.0 percent of them strongly agreed and 3.3 percent strongly disagreed. The item had a mean rating of 1.7667 and standard deviation of 0.62606 implying that majority of the respondents feel that the courses offered in TVETs do not fulfill market needs. There is need therefore for the TVET institutions to work closely with the industries and employers so as to continually adapt the courses offered in the TVETs to meet the market demands since technology is rapidly changing due to dynamism in the labour market requiring new skills for various activities. Innovativeness, creativity and being responsive to changing technology will help TVETs keep updated and eliminate outdated skills and courses.

The descriptive statistics results also indicate that respondents agree at 76.7 percent that the courses offered meet the trainees' needs for self-employment and 23.3 percent of them strongly agreed. The item had a mean of 1.7667 and a standard deviation of 0.43018. Therefore, the descriptive statistics results making a conclusion that the courses offered do not meet the trainees' needs for self-employment. The trainees need courses that can solve challenges in the community. Skills gained by going through a given course successfully should enable the graduate to start well-paying self-employment activity without the need to go to major towns in search for employment.

The descriptive analysis results shown in table 4.11 indicate that 76.7 percent of the respondents agree that the course offered have attracted more trainees. Those strongly agreed as represented by 16.7 percent and 6.7 percent representing those who disagreed. The item had a mean of 1.9000 and a standard deviation of 0.48066. Therefore, most of the informants indicated that the courses offered have not attracted more trainees. This is

the reason why the challenge of low enrolment still persists, with some TVETs opting to cluster many trainees of different academic years together to meet the threshold for a quorum that can be economically supported by the institution.

The results indicate that respondents at 70.0 percent of informants agreed that the courses offered equip the trainees with technical skills necessary for job placement and 30.0 percent strongly agreed, The item had a mean of 1.7000 and a standard deviation of 0.46609 an indication that majority of the respondents feel that the courses offered do not equip the trainees with technical skills necessary for job placement. This call for the need to work closely with the employers so as to know the current skills demand by the market in tandem with the dynamic technology. The findings of this research are in agreement with the study carried out by Mulongo and Kitururu (2016) in Tanzania on determinants for positioning and promoting TVET in Tanzania. The idea supported is that trainees enroll in TVET is to gain employable skills and skills for self-employment with high earning potential. The thought of getting attractive employment that is well paid is an impetus to enrolling in TVETS. This is also in line with findings of studies carried out by Konayuma (2008), Ngure (2013), UNESCO, (2021) and Kumiko (2016) that there is need to offer courses that fulfill the trainees' needs, community and labour market. In addition to these findings, the researcher also has found out that the TVETs are not in touch with the labour market and not committed to updating courses on offer to reflect dynamism in the community at large.

4.6.2 Trainees responses on influence of courses offered on enrolment

Trainees are the key players on the decision whether to accept to enroll in a particular institution for tertiary education or not to enroll. This decision is based on the knowledge and skills which the trainees is in need of based on the individual demands and prevailing job market demands to fulfil the needs of the trainee and entire community. For Technical Vocational and Training institutions (TVETs), this heavily depends on courses on offer. The enrolment into various courses offered in each TVET institution and is determined by the criteria of usefulness of the courses on offer which in turn influences overall enrolment of the TVET institution. The researcher sought to know from the trainees' point of view whether the courses on offer could be influencing their enrolment in TVETs. The items presented to trainees touched on whether the courses on offer fulfilled market needs, met the trainees needs for self-employment, attract more trainees and equip the trainees with technical skills job placement. The findings are presented in Table 4.12

Table 4.12 Influence of courses on offer on trainee's enrolment in TVET institutions

	Mean	Std. Dev.	SA %	A %	D %	SD %
The course offered fulfill market needs	1.408	.5876	62.8	34.7	1.5	0.9
The courses offered meet the trainees needs for self-employment	1.634	.6295	43.8	49.8	5.4	0.9

The course offered have attracted more trainees	1.813	.7311	36.3	47.7	14.5	1.5
The courses offered equip the trainees with technical skills necessary for job placement	1.511	.6389	55.0	40.8	2.4	1.8

The descriptive statistics results shown in table 4.12 reveal that trainees strongly agreed at 62.8 percent that the courses offered fulfill market needs, 34.7 percent of them agreed, 1.5 percent disagreed while those who strongly disagreed at 0.9. The item had a mean rating of 1.408 and standard deviation of 0.5876 implying that majority of the respondents feel that the course offered do not fulfill market needs.

The descriptive statistics results also indicate that respondents agree at 49.8 percent that the courses offered meet the trainees' needs for self-employment, 43.8 percent of them strongly agreed, while those who disagreed at 5.4 percent and 0.9 percent strongly disagreed. The item had a mean of 1.634 and a standard deviation of 0.6295. Therefore, the descriptive statistics results making a conclusion that the courses offered do not meet the trainees' needs for self-employment

The descriptive analysis results shown in table 4.12 indicate that 47.7 percent of the respondents agree that the course offered have attracted more trainees. Those strongly agreed as represented by 36.3 percent, 14.3 percent representing those who disagreed and 1.5 percent strongly disagreed. The item had a mean of 1.813 and a standard deviation of .7311. Therefore, most of the informants indicated that the course offered do not have attracted more trainees.

The results indicate that respondents at 55.5 percent of informants strongly agreed that the courses offered equip the trainees with technical skills necessary for job placement, 40.8 percent agreed, 2.4 percent disagreed while those who strongly disagreed at 1.8. The item had a mean of 1.551 and a standard deviation of 0.6389 indication that majority of the respondents feel that the courses offered do not equip the trainees with technical skills necessary for job placement. The courses offered which do not equip trainees with skills for self-employment and job placement, the researcher agrees with Ngure (2013) and UNESCO (2021) that training needs that are recognized and objectives that are put in place call for refreshing and modification of courses on offer to meet the needs of trainees so that trainees are trained in skills that are demand driven giving trainees assurance and confirmation of being employed and retained in the employment

4.6.3 Enrolment in the various courses on offer

The researcher sought to know how the trainees have enrolled in various courses on offer. To establish the enrolment in various courses so as to know the courses with high demand that could lead to increased enrolment in the TVET institution, the researcher asked respondents to indicate the course they were enrolled in and this was also confirmed by document analysis guide by analyzing the admission register. The results of enrolment in each category of course are shown in the table 4.13

Table 4.13 Enrolment in various courses on offer

NAME	COURSE LEVEL									
	ARTISAN		CRAFT		DIPLOMA		H/DIPLOMA		TOTAL	
	f	%	f	%	f	%	f	%	f	%
Building and Construction	18	5.5	12	3.6	6	1.8	-	-	36	10.8
Mechanical Engineering	8	2.5	12	3.6	12	3.6	3	0.9	35	10.6
Food and Beverage	14	4.2	8	2.4	10	3.0	2	0.6	34	10.3
Electrical and Electronics	16	4.9	4	1.2	10	3.0	2	0.6	32	9.7
Automotive Engineering	4	1.2	16	4.9	12	3.6	-	-	32	9.7
Business Studies	12	3.6	7	2.1	11	3.3	-	-	30	9.1
Hair Dressing and Beauty	20	6.0	5	1.5	-	-	-	-	25	7.6
Health and Applied Sciences	10	3.0	8	2.5	7	2.1	-	-	25	7.6
Agriculture and Extension	2	0.6	4	1.2	9	2.7	5	1.5	20	6.0
ICT	2	0.6	12	1.2	4	3.6	-	-	18	5.4
Clothing and Textile	7	2.1	3	0.9	8	2.5	-	-	18	5.4
Plumbing and Pipe Fitting	8	2.4	6	1.8	2	0.6	-	-	16	4.8
Leather and Tannery	4	1.2	6	1.8	-	-	-	-	10	3.0
Total	125	37.8	99	29.9	95	28.7	12	3.6	331	100

Table 4.13 Shows that, majority of the trainees were enrolled Artisan courses as indicated by 37.8 percent and Craft courses at 29.9 percent. The trainees enrolled in diploma and higher diploma was represented by 28.7 percent and 3.6 percent respectively. The enrolment in various course levels is linked to the grade scored in Kenya Certificate of Secondary Education (KCSE), according to Muranguri, KUCCPS (2020), that those with

grade C constant to grade E are legible to enroll in TVETs while some Kenya Cerficate of Primary Education (KCPE) graduates are also enrolled for Artsan courses. This cadre of trainees is reducing in line with the government policy of 100 percent transition since 2018 (Monica & Joan, 2020). Only a few had diploma (28.7%) since most of the candites who score mean grade C constant prefer academic oriented courses to TVET courses inline with negative attitude towards TVETs (Agrawal T. , 2012). Trainees enrolled in higher diploma are very few (3.6%) since they are not fresh graduates from secondary schools but have come to further their studies in TVET already having attained a diploma in the respective field of study.

The most popular course is building and construction as represented by 10.8 percent, closely followed by Mechanical Engineering at 10.6 percent. Food and Beverage 10.3 percent, Electrical and Electronics course is equally competitive with Automotive Engineering with a tie at 9.7 percent, Business Studies 9.1 percent enrolment, Hair Dressing and Beauty standing at 7.6 percent tongether with health and applied sciences. The least popular course is leather and tannery standing at 3 percent. The implication is that, the TVETs with most popular courses will have improved enrolment rates than those with less popular courses. Most courses include Information Communication Technology (ICT) in their training and this has seen ICT as a stand alone course lose popularity and decline in terms of number of trainees enrolled. Plumbing and Pipe fitting is gaining popularity since most buildings currently require the services of a plumber. Nevertheless the course can be merged with building and construction so that every marson is a qualified plumber.

4.6.4 Adequacy of enrolment in the various courses on offer

The researcher sought to find out whether each course on offer in the institution had adequate trainees enrolled as per the class capacity. The trainees provided their Responses as summarized in figure 4.9

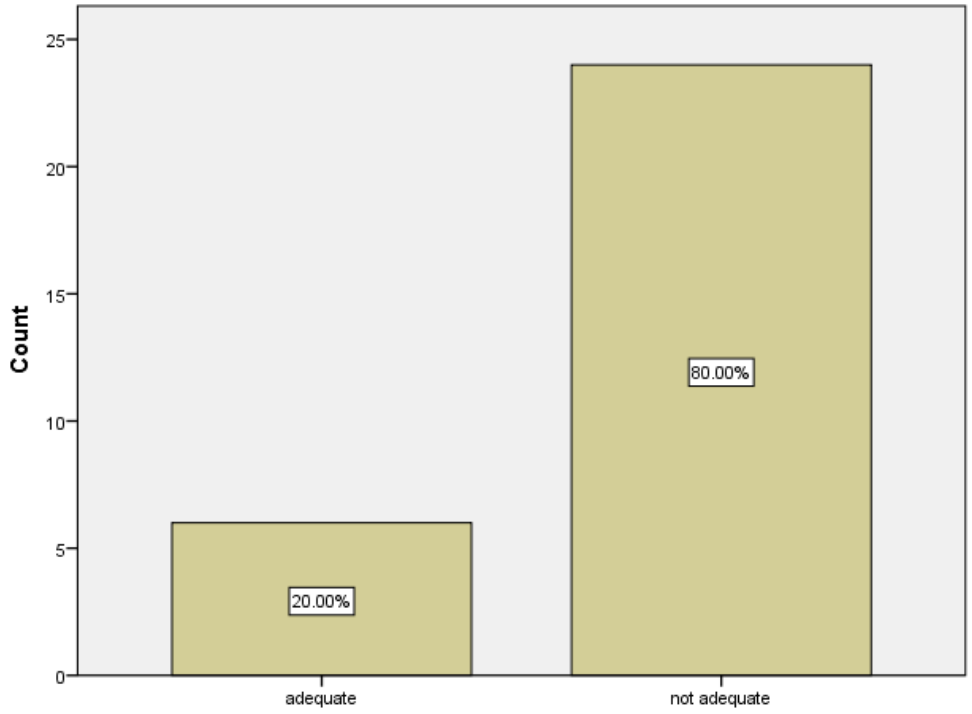

Figure 4.9 Percentage rating of current enrolment by trainees in courses on offer in TVETs

Majority of the respondents stated that the current enrolment in their TVET institutions was not adequate as represented by 80.00 percent while 20.00 percent of the enrolment was adequate. This could be due to the fact that the courses are not marketable or not suitable for self-employment skills for the trainees therefore trainees avoid them. On the other hand, prospective trainees may not be aware of the courses on offer in the various TVETs due to lack of awareness creation by advertising courses being offered in each TVET institution and the value of enrolling in such courses to the community and

individual may not be known hence enrolment in each course on offer is inadequate with the exception of the 20% of the courses on offer that have adequate enrolment. This 20% that have enrolled adequate trainees can be the ones that are endowing the trainees with employable and self-employment skills (Mulongo & Kitururu, 2016). The courses that do not meet trainees' needs and do not equip trainees with competitive skills influence the overall enrolment negatively and therefore TVETs have low enrolment rates generally. There is need to carry out a needs assessment on the courses on offer to find out whether the courses are responsive to meet needs of the trainees, job market and entire community and fulfil urgency of self-employment.

4.7 Influence of trainees' attitude on enrolment in TVET institutions

As discussed in literature review, attitude of trainees, trainees' parents or guardians and entire community influences enrolment in TVETs. Negative attitude lowers enrolment while positive attitude increases enrolment (Buyiaga, 2021). According to Kamau (2013), enrolment in TVETs has been marred by negative attitude of entire community. The researcher collected data from trainers and trainees to determine how attitude of trainees, parents or guardians and entire community influence enrolment in public TVETs in Nakuru County.

4.7.1 Trainers' views on willingness of trainees' to enroll in TVET institution

Of interest to the researcher was to establish whether the trainees had positive attitude that emanates from the entire community hence influencing enrolment in TVETs. The researcher asked the trainers to indicate their views on the willingness of trainees to

enroll in TVET institution and whether they were encouraged to enroll or were discouraged by their parents or guardians and peers. The willingness to enroll freely without being forced or pestered by parents or guardian is an indicator of positive attitude while enrolling as a last result when prevailing circumstances do not allow enrolling in other tertiary institutions of higher learning depicts negative attitude towards TVETs. The results are summarized in the figure 4.10

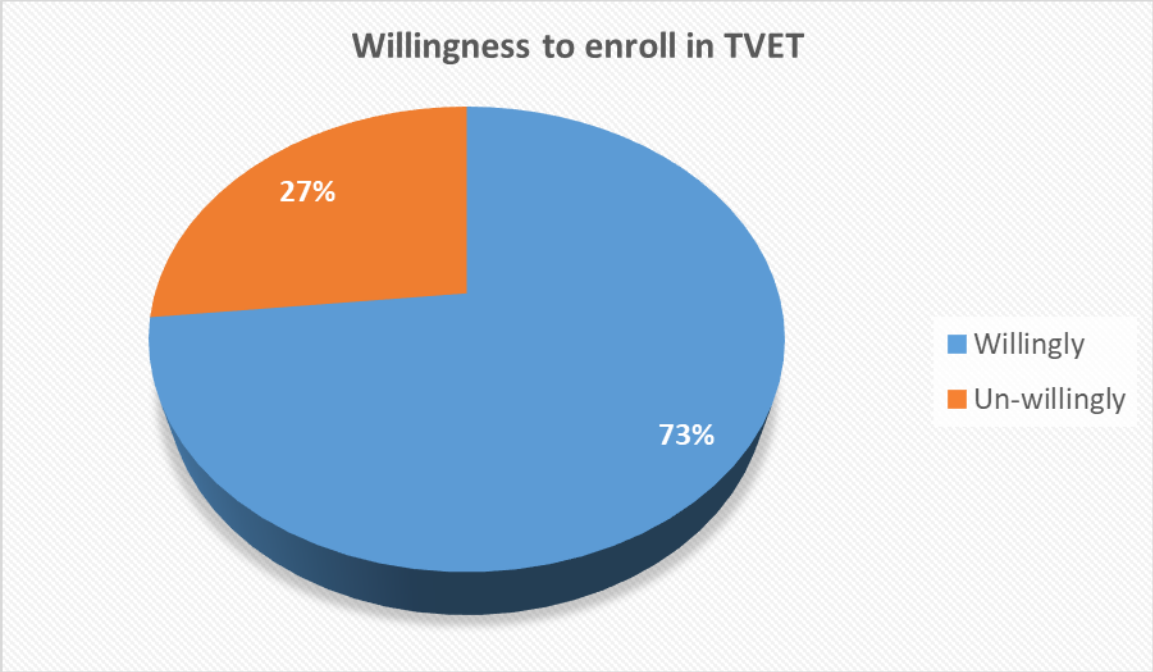

Figure 4.10 Percentage willingness of trainees to enroll in TVET institutions

Majority of the trainers agreed at 73.33 percent that trainees willingly enrolled in TVETs which was interpreted to mean the attitude of trainees towards TVET institutions was positive while 26.67 percent indicated they were not willing to enroll in TVETs but they had no alternative but to enroll in TVET since they could not be placed in any other institution for various reasons. This group of trainees gave varying explanations why they

enrolled in TVET unwillingly. One reason which was common was that the grade scored in KCSE was low and they could not get a suitable course elsewhere so they had to enroll in TVET where their grade is relevant. Another reason given was that, the parents or guardians could only afford to maintain them in the TVET due to proximity of the institution to their home hence reduced cost in terms of transport and subsistence. These were indicators of negative attitude. This means that, even though majority had positive attitude, enrolment was not increasing therefore something needs to be done to portray the positive attitude claim. It could mean that low enrolment is not attributed to negative attitude to some extent but could be due to other unforeseen determinants of enrolment from the trainees' point of view and parents or guardians of trainees. These findings concur with research carried out by Saif and Sharjah (2016) in United Emirates on attitudes towards vocational education and training which found out that, the general view against Vocational Education is negative and that TVETS are suffering from low reputation and bad image in the society as it was opined by Reddy and Devi (2011) in their research also in India.

4.7.2 Trainers' views on influence of trainees' attitude on enrolment

The trainers gave their responses on the items concerning attitude of trainees towards TVETs as the researcher needed to establish the same. The trainers' responses are summarized in table 4.14

Table 4.14 Trainers' view of influence of trainee's attitude on enrolment in TVETs

	Mean	Std. Dev.	SA %	A %	D %	SD %
Trainees prefer theoretical work to practical work	3.2667	.52083	0.00	3.3	66.7	30.0
Given the opportunity to join academic oriented courses, trainees would not have enrolled in TVET	2.1333	1.07425	36.7	26.7	23.3	13.3
Trainees enrolled in the TVET to gain skills for self-employment	1.8333	.46113	20.0	76.7	3.3	0.00
TVETs are dumping grounds for school drop outs	2.7667	.93526	0.00	56.7	10.0	33.3
TVETs are institutes for accommodating children of the poor	2.5000	.86103	3.3	63.3	13.3	20.0
TVETs are institutions for pre occupying the youth	2.3333	.95893	13.3	60.0	6.7	20.0
TVETs are good for non-performers in academics	2.6000	1.06997	13.3	43.3	13.3	30.0
Parents encourage their children to join TVETs	1.7333	.82768	43.3	46.7	3.3	6.7
Parents are aware of the presence of the TVETs and courses offered	1.6667	.84418	50.0	40.0	3.3	6.7

The descriptive statistics results shown in table 4.14 reveal that trainers disagreed at 66.7 percent that trainees prefer theoretical work to practical work, 30.0 percent of them strongly disagreed and 3.3 percent agreed. The item had a mean rating of 3.2667 and standard deviation of 0.52083. The implication is that majority of the respondents feel that trainees do not prefer theoretical work to practical work. TVET courses should be practical oriented to enable trainees gain real time skills that will assist them to be competitive in the market.

The descriptive statistics results also indicate that trainers strongly agree at 36.7 percent that trainees given opportunity to enroll in academic oriented courses, they would not have enrolled in TVET, 26.7 percent of them agreed, while those who disagreed at 23.3 percent and 13.3 percent strongly disagreed. The item had a mean of 2.1333 and a standard deviation of 1.07425. Therefore, the descriptive statistics results made a conclusion that those trainees given opportunity to join academic oriented courses, they would not have enrolled in TVET. This conclusion clearly shows that, the trainees enrolled in TVET as a last result either due to the low grades attained in secondary level or financial constraints that could not afford paying for education in other learning institutions. The findings are in line with the study carried out by Ismail (2019) in his study on attitude and performance where he examined the relationship between the attitude and performance in vocational training centers in Malaysia and found out that, mentality assumed a fundamental role in deciding students' enrolment in TVETs. Youthful trainees who enrolled in TVET institutions already had framed opinions and attitudes. A portion of these suppositions are socially based (Hansen, 2015) and emanate from the interactions within the community and the view that most students are less

interested in occupations targeted by TVET courses since they are viewed as occupations of low status. Deebom and Zite (2017), in their study carried out in Asian countries on the role and status of TVETs found out that, the students barred from enrolling in other academic disciplines due to their low performance in the secondary level of education are the ones admitted in TVETs. This aspect causes prospective trainees of TVETs to have negative attitude towards TVETs in fear of being seen as low academic achievers.

The descriptive analysis results shown in table 4.14 indicate that 76.7 percent of the trainers agree that trainees enrolled in the TVET to gain skills for self - employment. Those strongly agreed as represented by 20.0 percent and 3.3 percent representing those who disagreed. The item had a mean of 1.8333 and a standard deviation of .46113. Therefore, most of the informants indicated that trainees do not enroll in the TVET to gain skills for self – employment. This could be the reason why there are few trainees enrolling in TVETs. May be the trainees enroll to gain skills for self-employment and they graduate from the TVETs unable to self-employ themselves hence taint the image of TVETS.

The results indicate that respondents at 56.7 percent of informants agreed that the trainees enrolled in the TVET because they dropped out of school, 33.3 percent strongly disagreed and 10.0 percent disagreed. The item had a mean of 2.7667 and a standard deviation of 0.93526 indicating that majority of the respondents feel that the trainees do not enroll in the TVET because they dropped out of school. Enrolling in TVET is a

decision that needs to be keenly looked at since it seems low enrolment can be attributed to factors other than dropping out of school.

The descriptive statistics results shown in table 4.14 reveal that respondents agreed at 63.3 percent that trainees enrolled in the TVET because they come from a poor family, 20.0 percent of them strongly disagreed, 13.3 percent disagreed while those who strongly agreed at 3.3. The item had a mean rating of 2.5000 and standard deviation of 0.86103 an implication that majority of the respondents feel that trainees do not enroll in the TVET because they come from a poor family.

The descriptive statistics results also indicate that respondents agree at 60.0 percent that trainees joined TVET to be preoccupied and grow, 20.0 percent of them strongly disagreed, while those who strongly agreed at 13.3 percent and 6.7 percent disagreed. The item had a mean of 2.3333 and a standard deviation of 0.95893. Therefore, the descriptive statistics results lead to a conclusion that the trainees do not join TVET to be preoccupied and grow. There is more to being preoccupied and growing when a trainee joins TVET.

The descriptive analysis results shown in table 4.14 indicate that 43.3 percent of the respondents agree that trainees joined TVET because of performing poorly in school. The respondents who strongly disagreed were represented by 30.0 percent, 13.3 percent representing those both who strongly agreed and disagreed. The item had a mean of 2.600

and a standard deviation of 1.06997. Therefore, most of the informants indicated that trainees do not join TVET because they performed poorly in school.

The results indicate that respondents at 46.7 percent of informants agreed that trainees were encouraged by my parents to join TVET, 43.3 percent strongly agreed, and 6.7 percent strongly disagreed while those who disagreed at 3.3. The item had a mean of 1.7333 and a standard deviation of 0.82768 an indication that majority of the respondents feel trainees were encouraged by their parents to join TVET. Parents help their children to be self-reliant hence encourage taking a course that leads to a particular career.

The results indicate that respondents at 50.0 percent of informants strongly agreed that trainees' parents are aware of the presence of the TVETs and courses offered, 40.0 percent agreed, and 6.7 percent strongly disagreed while those who disagreed at 3.3. The item had a mean of 1.6667 and a standard deviation of 0.84418 indicating that majority of the respondents feel that trainees' parents are not aware of the presence of the TVETs and courses offered**.**

4.7.3 Trainees responses on influence of attitude on enrolment in TVET institutions

The researcher sought to know how trainees' attitude influenced enrolment in TVETs. An item was presented to the respondents to establish the same. The findings were presented in Table 4.15 for the responses obtained from the items presented to the respondents.

Table 4.15 Influence of trainee's attitude on enrolment in TVET Institutions

	Mean	Std. Dev.	SA %	A %	D %	SD %
As a trainee I prefer theoretical work to practical work	2.396	1.0943	28.7	21.1	30.2	19.0
Given opportunity to join academic oriented courses, I would not have enrolled in TVET	2.302	.8630	16.6	46.5	26.9	10.0
I enrolled in the TVET to gain skills for self - employment	1.852	.8630	40.5	39.0	15.4	5.1
I enrolled in the TVET because i dropped out of school	3.468	.7870	4.5	4.8	29.9	60.7
I enrolled in the TVET because I come from a poor family	2.634	1.1609	22.7	24.2	20.2	32.9
I joined TVET to be preoccupied and grow	3.326	1.0310	11.2	8.5	16.9	63.4
I joined TVET because i performed poor in school	3.447	.8975	6.0	9.7	17.8	66.5
I was encouraged by my parents to join TVET	2.417	.9977	21.5	31.4	31.1	16.0
Our parents are aware of the presence of the TVETs and courses offered	1.955	.9508	40.8	29.6	23.0	6.6

The descriptive statistics results shown in table 4.15 revealed that trainees disagreed at 30.2 percent that as a trainee they prefer theoretical work to practical work, 28.7 percent of them strongly agreed, 22.1 percent agreed while those who strongly disagreed at 19.0. The item had a mean rating of 2.396 and standard deviation of 1.0943 an implication that

majority of the respondents feel that as a trainee they do not prefer theoretical work to practical work.

The descriptive statistics results also indicate that respondents agree at 46.5 percent that given opportunity to join academic oriented courses, they would not have enrolled in TVET, 26.9 percent of them disagreed, while those who strongly agreed at 16.6 percent and 10.0 percent strongly disagreed. The item had a mean of 2.302 and a standard deviation of 0.8630. Therefore, the descriptive statistics results making a conclusion that given opportunity to join academic oriented courses, they would not have enrolled in TVET

The descriptive analysis results shown in Table 4.15 indicate that 40.5 percent of the respondents strongly agree that they enrolled in the TVET to gain skills for self - employment. Those agreed as represented by 39.0 percent, 15.4 percent representing those who disagreed and 5.1 percent strongly disagreed. The item had a mean of 1.852 and a standard deviation of .8630. Therefore, most of the informants indicated that they do not enroll in the TVET to gain skills for self – employment but enrolled since they had no alternative options for enrolling in any other tertiary institution.

The results in table 4.15 indicate that most respondents at 60.7 percent strongly disagreed that the trainees enrolled in the TVET because they dropped out of school, 29.9 percent disagreed, and 4.8 percent agreed while those who strongly agreed at 4.5. The

item had a mean of 3.468 and a standard deviation of 0.7870 indicating that majority of the respondents feel that the trainees do not enroll in the TVET because they dropped out of school.

The descriptive statistics results shown in table 4.15 reveal that trainees strongly disagreed at 32.9 percent that they enrolled in the TVET because they come from a poor family, 24.2 percent of them agreed, 22.7 percent strongly agreed while those who disagreed at 20.2. The item had a mean rating of 2.634 and standard deviation of 1.1609 an implication that majority of the respondents feel that they enrolled in the TVET because they come from a poor family.

The descriptive statistics results also indicate that respondents strongly disagree at 63.4 percent that they joined TVET to be preoccupied and grow, 16.9 percent of them disagreed, while those who strongly agreed at 11.2 percent and 8.5 percent agreed. The item had a mean of 3.326 and a standard deviation of 1.0310. Therefore, the descriptive statistics results making a conclusion that the trainees do not join TVET to be preoccupied and grow.

The descriptive analysis results shown in 4.15 indicate that 66.5 percent of the respondents strongly disagree that they joined TVET because they performed poorly in secondary school. Those disagreed as represented by 17.8 percent, 9.7 percent representing those who agreed and 6.0 percent strongly agreed. The item had a mean of

3.447 and a standard deviation of 0.8975. Therefore, most of the informants indicated that they joined TVET because they performed poorly in secondary school.

The results also indicate that respondents at 31.4 percent of informants agreed that they were encouraged by my parents to join TVET, 31.1 percent disagreed, and 21.5 percent strongly agreed while those who strongly disagreed at 16.0. The item had a mean of 2.417 and a standard deviation of 0.9977 an indication that majority of the respondents feel they were encouraged by their parents to join TVET.

The results indicate that respondents at 31.4 percent of informants strongly agreed that their parents are aware of the presence of the TVETs and courses offered, 29.6 percent agreed, and 23.0 percent disagreed while those who strongly disagreed at 6.6. The item had a mean of 1.955 and a standard deviation of 0.9508 an indication that majority of the respondents feel their parents are not aware of the presence of the TVETs and courses offered**.**

4.7.4 Attitude of trainees pursuing higher TVET qualifications and enrolment

The researcher sought to find out whether the enrolled trainees were willing to pursue higher qualifications in the same course they were taking and their attitude towards TVET institutions so as to understand influence of the same on enrolment. The researcher intended to find out whether trainees had interest in whatever they were studying and their attitude towards TVETs. The findings are presented in Figure 4.11.

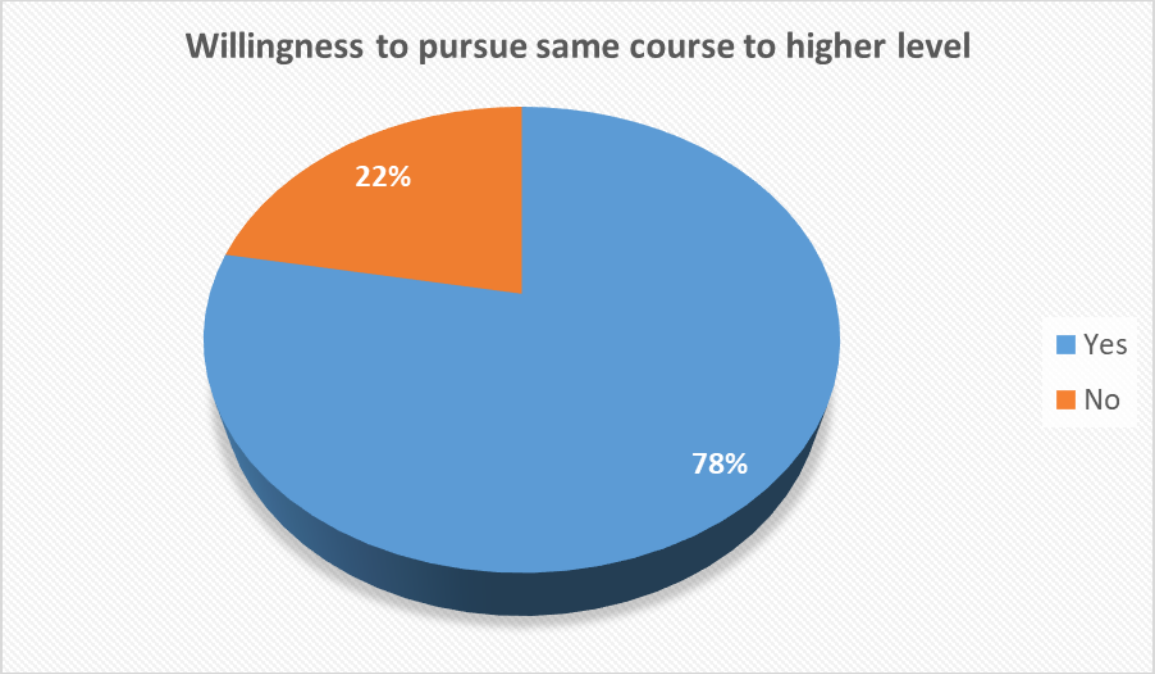

Figure 4.11: Percentage willingness to pursue the same course to higher level

Majority of the respondents were willing to pursue the same course to higher level as represented by 93.96 percent while 6.04 percent were not willing. This means that given the opportunity, those who have graduated with a diploma would wish to do a degree. Since the TVETs do not offer degrees, the graduates move out and enroll in technical universities hence enrolment does not increase. Willingness to pursue higher qualifications in the same course can be a boost to the enrolment if the TVETs are able to offer such opportunities for advancement without compromising the quality of the academic content and certification.

4.7.5 Trainees' attitude on enrolling in TVET before and after being enrolled

The researcher sought to know trainees' attitude towards TVETs before being enrolled into TVET and after enrolling in TVET so as to find out how attitude influences enrolment. The items required the trainees to indicate whether they enjoy being in TVET institution, whether TVET was their preferred choice of institution and whether they would recommend their colleagues to enroll in TVET. The results of responses to the items are presented in Table 4.16

Table 4.16 Responses on trainees' attitude and enrolment in TVET institutions

		Frequency	Percent
Do your fellow trainees enjoy being in a TVET Institute?	Yes	293	88.5
	No	38	11.5
Was TVET institution your preferred choice after you completed primary or secondary school?	Yes	141	42.6
	No	190	57.4
Would you recommend your colleagues to enroll in a TVET institution?	Yes	251	75.8
	No	80	24.2

Table 4.16 shows that, majority of the respondents involved in the study stated that their fellow trainees enjoy being in a TVET institute as indicated by 88.5 percent while 11.5 percent do not enjoy. This is an indication of change of attitude towards enrolling in TVETs after being enrolled. The change in attitude from negative to positive could lead into improved enrolment in TVETs in future. 57. 4 percent of the informants revealed that TVET institutions were not their preferred choice after completing secondary school while 42.6 percent agreed that TVET institutions were their preferred choice of institution. This means that there is poor attitude towards TVET institutions in the communities and therefore trainees eventually find themselves enrolled in a TVET institution as a last result when they are unable to enroll in any other tertiary institution. Negative attitude could be one of the causes of low enrolment in TVETs as found out in this study.

The study findings indicated that, majority of the respondents were willing to recommend their colleagues to enroll in a TVET institution as represented by 75.8 percent while 24.2 percent were not. This was after they had enrolled and started learning as trainees that they realized the value of TVET institutions. This could result in improved enrolment in the long run. The TVET institutions' stakeholders included are the principals, trainers, trainees and surrounding communities' attitude has not completely changed positively to favour increased enrolment.

4.8 Document analysis guide

The researcher sought to analyze admission records to verify the actual grades of admitted trainees in Kenya Certificate of Secondary Examination (KCSE) and the courses they enrolled in the TVET and to verify the actual enrolment in the TVET. Brochures were also analyzed to verify the courses on offer in the TVETs and the courses the trainees were enrolled to. Finally, graduation lists were also analyzed to get data for enrolled trainees who successfully completed taking the course and proceeded to graduate.

4.8.1 Analysis of admission registers

The researcher requested to be allowed to access admission registers to collect data on number of trainees enrolled, courses they were enrolled to and the grade the enrolled trainees attained in KCSE. The information obtained from admission registers confirmed low enrolment in the courses on offer and same grades provided by the trainees in the questionnaires analyzed and results presented in Figure 4.2

4.8.2 Analysis of brochures and the courses on offer

The researcher requested to be provided with brochures for each sampled TVET so as to analyze the brochures for the courses on offer and verify information provided by trainees. The results are shown in Table 4.17

Table 4.17 Availability of brochures in the sampled TVETs

Brochures		
Availability status	f	%
Available	8	66.67
Not available	4	33.33
Total	12	100

Table 4.17 shows that majority of the sampled TVETs (66.67%) had well designed brochures which they provided to the researcher. This meant that they advertised their TVETs and the courses on offer. Only 33.33% had not prepared brochures for dissemination. This meant that, prospective trainees beyond their locality may not know the existence of the TVETs without brochures and hence have limited catchment area for the prospective trainees. This can be a cause of low enrolment in the 33.33 TVETs without brochures.

The researcher analyzed the brochures obtained from the 66.67% TVETs for the courses on offer and verified against the courses trainees had been enrolled in. the results of the analysis are presented in Table 4.18

Table 4.18 Courses on offer and found in brochure

	Captured in brochure		Not captured in brochure	
Course type and examining body	f	%	f	%
Long-term KNEC examined courses	12	100	0	0
Short-term courses examined by other bodies	6	50	6	50

Table 4.18 shows that all (100%) KNEC examined courses were well captured in the brochures and therefore the entire community, parents, guardians and prospective trainees could apply to be enrolled in the courses and thus the courses were having trainees considerably better enrolment as indicated by the enrolled trainees. Only the short-term courses examined by other bodies like NITA and CDACC and the TVET itself were not fully captured in the brochure. Fifty percent (50%) were captured. This could reduce enrolment in the courses not in the brochure since trainees need to know the short-term courses available for skill upgrading so as to enroll for the desired courses.

4.8.3 Analysis of graduation list for completion rate

The researcher sought to know the completion rate of trainees enrolled in the same year taking similar type of courses. The researcher requested to be provided with a copy of graduation list which was then analyzed. The results are shown in Figure 4.12

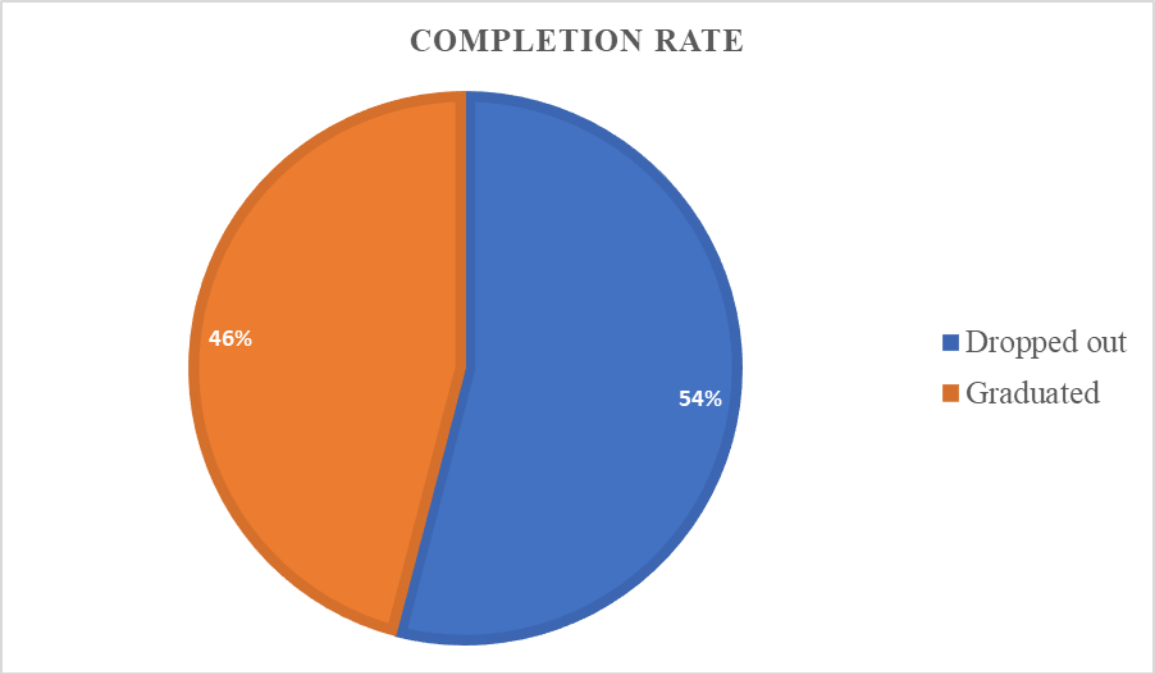

Figure 4.12 Percentage of enrolled trainees who graduated

Figure 4.12 shows that, 54% of the enrolled trainees dropped out and only 46% managed to complete their courses and then graduated. The high dropout rate could be attributed to parents or guardians failing to meet the training costs or the trainees realizing that the course they are enrolled in is not marketable or lose interest in the course and switch to other courses midway. This is a concern that needs to be addressed by the TVET institution management.

4.9 Null hypothesis testing

The hypothesis in this study were tested based on trainees' data because the trainees have upper

H_{01}: There is no significant relationship between grades scored in secondary examination and enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs) in Nakuru County, Kenya.

H_{02}: There is no significant relationship between socioeconomic status and trainees' enrolment in public TVETs in Nakuru County, Kenya.

H_{03}: There is no significant relationship between courses on offer and enrolment of trainees in public TVETs in Nakuru County, Kenya.

H_{04}: There is no significant relationship between trainees' attitudes and enrolment of trainees in public TVETs in Nakuru County, Kenya.

The researcher carried out testing of hypothesis of the study using trainees' findings since the trainees are the ones that enrol in TVETs to be trained, hence are in the central position expressing their own needs, parents and guardians needs and the needs and views of entire community who are the consumers of the skills acquired in the TVETs.

4.9.1 Testing hypothesis $H0_1$

The researcher performed an ANOVA test for data collected from the respondents on grades scored in secondary school Kenya Certificate of Secondary Examination (KCSE) to find out how the grade scored influences enrolment in the TVETs. The findings were presented in Table 4.19

Table 4.19 One-way ANOVA test for trainees' grades scored in KCSE and enrolment in TVETs

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.615	2	1.808	10.770	.000
Within Groups	54.882	327	.168		
Total	58.497	329			

H_{O1}: There is no significant relationship between grades scored in secondary examination and enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs) in Nakuru County, Kenya.

$H1_1$: There is significant relationship between grades scored in secondary examination and enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs) in Nakuru County, Kenya. This hypothesis was tested as shown in Table 4.16 and from the analysis, it was concluded that, since p-value is 0.00< P-value = 0.05, $H0_1$ was rejected and the researcher concluded that, there is statistically significant relationship between grades scored in secondary examination and enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs) as determined by one-way ANOVA ($F(2, 327) = 10.770$, $P<0.001$). The interpretation is that, scoring grades C+ and above would mean that few graduates of KCSE would be expected to enroll in TVETs while scoring C constant and below in KCSE is likely to increase the number of prospective TVET trainees. Since majority of the candidates who sit for KCSE score grades C constant, C-, D+, D, D- and E. Research findings from

former researches had revealed that those who performed poorly in academics are the ones who enrolled in TVETs according to the findings of researches done in Thailand by Curtis (2008), Kumiko (2016) in Japan had also revealed that parents and students were putting greater focus to enroll in Universities and TVET was a second choice. The information obtained from Kenya National Examination Council (KNEC) on performance in KCSE for the past 5 years indicate that those candidates who score grades C to E are more (79. 78%) against those who score C+ and above (19. 03%) (KNEC, 2021). It is expected that majority of the low-grade scorers in KCSE could enroll in TVETs. The findings of this study from the ANOVA test in Table 4.16, are in tandem with former research findings. These findings are also in line with those of Agrawal (2012); Agodini & Novark (2014); Moenjack and Worswick (2013) that those who score low grades in secondary education are the ones likely to enroll in TVETs holding other factors constant. Although in Kenya, those who score C+ and above in recent years have been noted to prefer enrolling in TVETs than the universities (Muranguri, kuccps, 2020) Other determinants of enrolment could override this determinant.

4.9.2 Testing hypothesis $H0_2$

A one-way ANOVA test was carried out on data collected from the respondents on influence of socioeconomic status of trainees on enrolment of the trainees in the TVETs. The results of the ANOVA test were presented in Table 4.20

Table 4.20 One-way ANOVA test for trainees' socioeconomic status and enrolment in public TVETs

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.011	1	.011	.061	.805
Within Groups	58.539	329	.178		
Total	58.550	330			
Between Groups	2.533	3	.844	4.928	.002
Within Groups	56.017	327	.171		
Total	58.550	330			
Between Groups	.321	3	.107	.600	.615
Within Groups	58.229	327	.178		
Total	58.550	330			
Between Groups	31.488	2	15.744	8.569	.000
Within Groups	602.657	328	1.837		
Total	634.145	330			
Between Groups	3.847	2	1.924	2.870	.058
Within Groups	219.838	328	.670		
Total	223.686	330			
Between Groups	.745	2	.372	.726	.484
Within Groups	168.120	328	.513		
Total	168.864	330			

The ANOVA test performed on the data collected from trainees tested the hypothesis;

H_{O2}: There is no significant relationship between socioeconomic status and trainees' enrolment in public TVETs in Nakuru County, Kenya.

H_{2a}: There is significant relationship between socioeconomic status and trainees' enrolment in public TVETs in Nakuru County, Kenya.

There is no statistically significant mean difference between socioeconomic status [gender] and trainees' enrolment in public TVETs.

Since p-value = 0.805> P-value = 0.05, we accept $H0_2$ and conclude there is no statistically significant mean difference between socioeconomic status [gender] and trainees' enrolment in public TVETs as determined by one-way ANOVA (F (2, 327) =0.061, P=0.805).

$H0_{2b}$: There is no statistically significant mean difference between socioeconomic status [age] and trainees' enrolment in public TVETs

$H2_b$: There is statistically significant mean difference between socioeconomic status [age] and trainees' enrolment in public TVETs.

Since p-value = 0.002< P-value = 0.05, we reject $H0_{2b}$ and conclude there is statistically significant mean difference between socioeconomic status [age] and trainees' enrolment in public TVETs as determined by one-way ANOVA (F (2, 327) =4.928, P= 0.002).

$H0_{2c}$: There is no statistically significant mean difference between socioeconomic status [level of education prior to joining current institution] and trainees' enrolment in public TVETs

$H2_c$: There is statistically significant mean difference between socioeconomic status [level of education prior to joining current institution] and trainees' enrolment in public TVETs.

Since p-value = 0.615> P-value = 0.05, $H0_{2c}$ is not rejected and the conclusion made is that, there is no statistically significant mean difference between socioeconomic status [level of education prior to enrolling in current institution] and trainees' enrolment in public TVETs as determined by one-way ANOVA (F (2, 327) =0.600, P= 0.615)

$H0_{2d}$: There is no statistically significant mean difference between socioeconomic status [parental level of education] and trainees' enrolment in public TVETs

$H2_d$: There is statistically significant mean difference between socioeconomic status [parental level of education] and trainees' enrolment in public TVETs

Since p-value is 0.000<P-value = 0.05, $H0_{2d}$ is rejected and conclusion made is that, there is statistically significant mean difference between socioeconomic status [parental level of education] and trainees' enrolment in public TVETs as determined by one-way ANOVA (F (2, 328) =8.569, P< 0.001)

$H0_{2e}$: There is no statistically significant mean difference between socioeconomic status [employment status of parents] and trainees' enrolment in public TVETs

$H2_e$: There is statistically significant mean difference between socioeconomic status [employment status of parents] and trainees' enrolment in public TVETs

Since p-value = 0.58>P-value = 0.05, $H0_{2e}$ is accepted and the conclusion made is that, there is no statistically significant mean difference between socioeconomic status [employment status of parents] and trainees' enrolment in public TVETs as determined by one-way ANOVA (F (2, 328) =2.870, P= 0.58)

$H0_{2f}$: There is no statistically significant mean difference between socioeconomic status [adequacy of family income] and trainees' enrolment in public TVETs

$H2_{f}$: There is statistically significant mean difference between socioeconomic status [adequacy of family income] and trainees' enrolment in public TVETs

Since p-value = 0.726>P-value = 0.05, $H0_{2e}$ is accepted and the conclusion made is that, there is no statistically significant mean difference between socioeconomic status [adequacy of family income] and trainees' enrolment in public TVETs as determined by one-way ANOVA (F (2, 328) =0.484, P= 0.726)

4.9.3 Testing hypothesis $H0_3$

A one-way ANOVA test was also performed on data collected from trainees on how courses on offer influence enrolment of trainees in TVETs. The results of the test were presented in Table 4.21

Table 4.21 One-way ANOVA test for trainees' courses on offer and enrolment in public TVETs

		Sum of Squares	df	Mean Square	F	Sig.
The course offered fulfill market needs	Between Groups	.069	1	.069	.198	.657
	Within Groups	113.871	329	.346		
	Total	113.940	330			
The courses offered meet the trainees needs for self-employment	Between Groups	.001	1	.001	.002	.964
	Within Groups	130.767	329	.397		
	Total	130.767	330			
The course offered have attracted more trainees	Between Groups	.468	1	.468	.876	.350
	Within Groups	175.919	329	.535		
	Total	176.387	330			
The courses offered equip the trainees with technical skills necessary for job placement	Between Groups	.056	1	.056	.136	.713
	Within Groups	134.657	329	.409		
	Total	134.713	330			

The hypothesis tested was; $H0_3$: There is no statistically significant mean difference between courses on offer and enrolment of trainees in public TVETs.

$H1_3$: There is statistically significant mean difference between courses on offer and enrolment of trainees in public TVETs

Since p-value = 0.671>P-value = 0.05, we reject $H1_3$ and conclude there is no statistically significant mean difference between courses on offer and enrolment of trainees in public TVETs as determined by one-way ANOVA (F (1, 329) =0.303, P= 0.671).

4.9.4 Testing hypothesis $H0_4$

Data collected from trainees on how their attitude influences their enrolment in TVETs was also analyzed using ANOVA test. The results are shown in Table 4.22

Table 4.22 One-way ANOVA test for trainees' attitude and enrolment in TVETs

		Sum of Squares	df	Mean Square	F	Sig.
As a trainee i prefer theoretical work to practical work	Between Groups	.063	1	.063	.053	.819
	Within Groups	395.091	329	1.201		
	Total	395.154	330			
Given opportunity to join academic oriented courses, i would not have enrolled in TVET	Between Groups	2.052	1	2.052	2.770	.097
	Within Groups	243.737	329	.741		
	Total	245.789	330			
I enrolled in the TVET to gain skills for self - employment	Between Groups	.309	1	.309	.414	.521
	Within Groups	245.438	329	.746		
	Total	245.746	330			
I enrolled in the TVET because i dropped out of school	Between Groups	.500	1	.500	.807	.370
	Within Groups	203.917	329	.620		
	Total	204.417	330			
I enrolled in the TVET because i come from a poor family	Between Groups	4.810	1	4.810	3.597	.059
	Within Groups	439.957	329	1.337		

	Total	444.767	330			
I joined TVET to be preoccupied and grow	Between Groups	5.410	1	5.410	5.154	.024
	Within Groups	345.351	329	1.050		
	Total	350.761	330			
I joined TVET because i performed poor in school	Between Groups	8.253	1	8.253	10.541	.001
	Within Groups	257.572	329	.783		
	Total	265.825	330			
I was encouraged by my parents to join TVET	Between Groups	.002	1	.002	.002	.967
	Within Groups	328.464	329	.998		
	Total	328.465	330			
Our parents are aware of the presence of the TVETs and courses offered	Between Groups	.203	1	.203	.224	.637
	Within Groups	298.118	329	.906		
	Total	298.320	330			

$H0_4$: There is no statistically significant mean difference between trainees' attitudes and enrolment of trainees in public TVETs.

$H1_4$: There is statistically significant mean difference between trainees' attitudes and enrolment of trainees in public TVETs.

Since p-value = 0.3883>P-value = 0.05, we fail to reject $H0_4$ and conclude there is no statistically significant mean difference between trainees' attitudes and enrolment of

trainees in public TVETs as determined by one-way ANOVA (F (1, 329) =2.618, P= 0.3883). This points out that, although there is negative publicity of TVETs by the community and prospective trainees due to other professions being viewed as well-paying than those trained in TVETs as opined by Aryeetey & Andoh (2011); Buyiaga, (2021) and Friedman & Mandel (2011), there is growing change in attitude which starts from the continuing trainees and the wave is penetrating the community shifting the status of the attitude which will positively impact on the enrolment in TVETs

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 introduction

This chapter comprises of introduction, summary of the study, conclusions, recommendations and suggestion for further study.

5.2 summary of the study

The study was carried out to investigate the individual and institutional determinants of trainees' enrolment in public, Technical Vocational, Education and Training (TVET) institutions in Nakuru County, Kenya. The researcher singled out three individual determinants and one institutional determinant of trainees' enrolment in public TVETs

Four research objectives of the study were formulated to guide data collection and analysis. These were: to establish how grades scored in Secondary Examination influenced trainees' enrolment in Public Technical, Vocational, Education and Training institutions (TVETs) in Nakuru County, Kenya, to establish how socioeconomic status affected trainees enrolment in public TVETs in Nakuru County, Kenya, to determine influence of courses on offer on trainees' enrolment in public TVETs in Nakuru County, Kenya and to assess the extent to which trainees' attitudes affected their enrolment in public TVETs in Nakuru County, Kenya.

This study employed descriptive survey research design. A survey is an attempt to collect data from members of a population in order to determine the status of the population with

respect to one or more variables. The design explored individual and institutional determinants of trainees' enrolment in public TVET institutions. Descriptive survey is a method of collecting numerical data to answer questions about the status of the phenomena under study. The design allowed the researcher to collect data about people's opinions, attitudes, habits or any other educational issue. The design was considered appropriate because it was capable of facilitating collection of data that described specific characteristics of phenomena in order to determine the status of a population with respect to one or more variables.

The respondents of the proposed study were drawn from the 24 registered public TVETs in the County. The study targeted 24 institutions' principals, 150 instructors and 2,385 trainees. Since a sample of 20 percent to 50 percent is recommended for small target groups, 50 percent of registered public TVETs were randomly sampled to get a sample of twelve public TVETs and twelve principals. Twenty percent of the instructors were taken to give a sample size of 30 instructors. Cochran (1977) formula was used to calculate the sample size of trainees. Cochran formula was appropriate for this study because the target population of trainees in the study was large.

From the sampled TVET institutions, twelve principals underwent interviews through interview scheduling, 30 instructors and 331 trainees' filled questionnaires. Document analysis guide was also used by the researcher to augment data provided the respondents through the interview schedules and the questionnaires. All the sampled respondents

participated well in the study and data for analysis was collected successfully by the researcher.

The study used Statistical Package for Social Sciences (SPSS) IBM version 20 to analyze data. The data was analyzed both qualitatively and quantitatively. Quantitative data was edited to eliminate inconsistencies, summarized and coded for easy classification in order to facilitate tabulation and interpretation. Descriptive statistics was used in describing the sample data in such a way as to portray the typical respondent and to reveal the general response pattern. Qualitative data analysis was done by describing the distribution of single variables. The analyzed data was then presented through tabular representation of frequency tables, pie charts and bar graphs. The hypotheses were tested using ANOVA test and correlation coefficient.

5.3 Summary of major findings

The major findings of this study are based on the hypotheses of the study. The summary of the findings were presented systematically beginning with the first hypothesis to the fourth following the order the hypothesis were presented in the study.

5.3.1 Findings based on hypothesis HO_1

The hypothesis HO_1 stated that; there is no significant relationship between grades scored in secondary examination and enrolment of trainees' in public Technical Vocational Education and Training institutions (TVETs) in Nakuru County, Kenya. The findings of the correlation between grades scored in secondary examination and enrolment in TVETs

showed that, Since P value is .210 > P=.05, HO_1 was rejected and the conclusion was that there was statistically significant relationship between grades scored in Kenya Certificate of secondary Education (KCSE) and enrolment of trainees in public Technical Vocational Education and Training institutions (TVETs). The Pearson correlation is +.235 indicating that we have a positive Pearson correlation relationship between the two variables. Therefore, grades scored by a candidate in KCSE positively influences their choice of career and consequently enrolment in TVETs

5.3.2 Findings based on Hypothesis $H0_2$

The hypothesis **H_{02}** stated that, there is no significant relationship between socioeconomic status and trainees' enrolment in public TVETs in Nakuru County, Kenya. The findings of the ANOVA test on socioeconomic status showed that, $H0_2$:

Since p-value = 0.002< P-value = 0.05, $H0_2$ was rejected and the conclusion made was that there was statistically significant mean difference between socioeconomic status and trainees' enrolment in public TVETs as determined by one-way ANOVA (F (2, 327) =4.928, P= 0.002). This meant that those trainees who come from a background of low socioeconomic status are likely to drop out of school due to challenges in meeting their financial obligations reducing further the enrolment. Even raising funds to enable the trainees to join TVET after placement by the Kenya Universities and Colleges Central Placement Service (KUCCPS) is a real challenge since the Higher Education Loans Board (HELB) does not release the loans applied for timely placing the trainees without adequate financial support in a challenging situation. HELB loans are released half-way through the first semester and sometimes when the semester is over. Consequently, most

trainees placed by KUCCPS end up forfeiting their chances of joining TVET and eventually never proceed to any tertiary learning institution for life. The study also sought to establish challenges facing TVETs in trying to raise enrolment levels. All the principals indicated that the HELB Loan is delayed and released during the second semester for the qualified applicants making it difficult for those trainees placed from low socioeconomic backgrounds to enrol in the TVETs and continue with their studies. The same challenge was cited by most trainees on being unable to pay registration processing fees owing to the delayed funds support. The trainees also pointed out that most of their colleagues drop out since they are unable to pay examination fees and this reduces the enrolment in TVETs.

5.3.3 Findings based on Hypothesis $H0_3$

The hypothesis $H0_3$ stated that, there is no statistically significant mean difference between courses on offer and enrolment of trainees in public TVETs. The analysis of the findings of hypothesis H_{03} indicated that, p-value = 0.671>P-value = 0.05, $H0_3$ was accepted and the conclusion was that there is no statistically significant mean difference between courses on offer and enrolment of trainees in public TVETs as determined by one-way ANOVA (F (1, 329) =0.303, P= 0.671). This indicated that the courses on offer in TVETs fulfil market needs and equip trainees with employable skills and skills for self-employment. The prospective trainees have a variety of courses at every level (Diploma, Certificate and Artisan) to choose from depending on performance in KCSE or equivalent qualification. Since the trainees' view of courses on offer in TVETs is positive, enrolment is increasing because some industries have been sending their

employees to the TVETs to attend on-the-job short courses to upgrade their skills in the work place for professional development. This attests to the fact that the TVETs have incorporated the dynamism in technology to cater for new development and requirements for the job market and self employment. Due to this, majority of the respondents were willing to pursue the same course to higher level as represented by 93.96 percent while 6.04 percent were not willing. This meant that given the opportunity and resources to enable them pursue the course to a higher level, the graduates of TVET would go ahead and gain better qualifications.

However, from the interview with principals of the TVETs, 90% of the principals stated that they have only partinered with some industries purely for attachment purposes and they have never tried to organise expositions or trade meetings with prospective employers to market their graduates. The interpretation is that the trainees after graduating have no support from the TVET institution attended to make it easier for them for the transition from trainee status to employee status hence prospective trainees have the view that the courses offered do not equip the trainees with employable skills as stated by majority of trainees (75%) giving a mean of 1.551 and a standard deviation of 0.6389 leading to the conclusion that the courses offered do not equip trainees with employable skills. All the principals (100%) indicated that they have no links to self-employed graduates whether as individuals or organised associations of self-employment and do not sent trainees for attachment in such areas hence most trainees (98%) have no idea on how to start or join self-employment associations thus prospective trainees fear enrolling in TVETs to train and just remain unemployed hence the low enrolment in TVETs.

5.3.4 Findings based on Hypothesis $H0_4$

The hypothesis **H_{O4}** stated that, there is no significant relationship between trainees' attitudes and enrolment of trainees in public TVETs in Nakuru County, Kenya. The findings as determined by ANOVA test show that, the p-value = 0.3883>P-value = 0.05, we fail to reject $H0_4$ and conclude there is no statistically significant mean difference between trainees' attitudes and enrolment of trainees' in public TVETs as determined by one-way ANOVA (F (1, 329) =2.618, P= 0.3883). This points out that, although there is negative publicity of TVETs by the community and prospective trainees due to other professions being viewed as well-paying than those trained in TVETs, there is growing change in attitude which starts from the continuing trainees and the wave is penetrating the community shifting the status of the attitude which will positively impact on the enrolment in TVETs.

TVET graduates employment/self-employment after TVET training

From the interview with principals of the TVETs, 90% of the principals stated that they have only partnered with some industries purely for attachment purposes and they have never tried to organize expositions or trade meetings with prospective employers to market their graduates. The interpretation is that the trainees after graduating have no support from the TVET institution attended to make it easier for them for the transition from trainee status to employee status hence prospective trainees have the view that the courses offered do not equip the trainees with employable skills as stated by majority of trainees (75%) giving a mean of 1.551 and a standard deviation of 0.6389 leading to the conclusion that the courses offered do not equip trainees with employable skills. All the

principals (100%) indicated that they have no links to self-employed graduates whether as individuals or organised associations of self-employment and do not sent trainees for attachment in such areas hence most trainees (98%) have no idea on how to start or join self-employment associations thus prospective trainees fear enrolling in TVETs to train and just remain unemployed hence the low enrolment in TVETs.

Mismatch between TVET courses on offer and industries demanded skills

The study sought to establish the extent to which courses on offer in the TVETsequip trainees with skills for job market and self-employment and in return influence enrolment in the TVETs. The findings revealed that; most trainees (62.8%) strongly agreed that the courses offered fulfil market needs and hence are expected to attract more trainees to enrol in the TVETs. Majority of trainees (95.8) indicated that, the courses on offer equip trainees with necessary technical skills needed for job placement and hence have positively influenced enrolment since some industries have been sending their employees to the TVETs to attend on the job short courses to upgrade their skills in the work place for professional development. This attests to the fact that the TVETs have incorporated the dynamism in technology to cater for new development and requirements for the job market and self-employment.

TVET graduates furthering studies in other tertiary institutions

Majority of the respondents were willing to pursue the same course to higher level as represented by 93.96 percent while 6.04 percent were not willing. This meant that given the opportunity and resources to enable them pursue the course to a higher level, the

graduates of TVET would go ahead and gain better qualifications. Since the government only subsidizes first time trainee enrolment by giving a grant of ksh. 30,000 and a HELB loan of ksh. 40,000 most trainees are able to join first time courses but not able to further their studies due to lack of financial support.

Challenges facing TVETs in relation to enrolment

The study also sought to establish challenges facing TVETs in trying to raise enrolment levels. All the principals indicated that the HELB Loan is delayed and released during the second semester for the qualified applicants making it difficult for those trainees placed from low socioeconomic backgrounds to enrol in the TVETs and continue with their studies. The same challenge was cited by most trainees on being unable to pay registration processing fees owing to the delayed funds support. The trainees also pointed out that most of their colleagues drop out since they are unable to pay examination fees and this reduces the enrolment in TVETs. The inability to pay due to the low socioeconomic status causes most trainees end up enrolling in cheap alternative programmes whose graduates do not acquire the requisite skills necessary for the world of work. TVET sector is faced with the challenges of negative perception and poor image which has continued over a period of time. The sector is often seen as last choice of education and not a preferred option in education and training. The poor image can be attributed to multiple factors related to equity, access, quality and relevance. Among the factors leading to this negative perception include lack of specialization in TVET Institutions, lack of clear admission and progression procedures, inadequate career guidance in basic education, inappropriate infrastructure and equipment and low funding

(MoE-NESSP, 2018). Due to some courses on offer being outdated, there is deficiency of TVET graduates in the competencies required for work and life.

Suggestions towards improving enrolment in TVETs

In order to address the challenges facing TVETs in raising their enrolment, the principals, trainers and trainees suggested that government funding can be extended to cover examination fees also. Trainees suggested that the 30,000 grant be used to process registration so as to enable all those placed by KUCCPS in TVETs to smoothly enrol and start their studies. The TVET programmes can be expanded at National, county and constituency level to offer a variety of courses for trainees to choose from and enrol. Adequate training opportunities for accessible Competency Based Training can be provided by establishing baseline on the status of TVET in the country, Strengthening centralized admissions service, expanding TVET facilities targeting National priority sectors, providing TVET training while ensuring affirmative action with respect to vulnerable groups, special needs and disabilities, gender, hard to reach minority and marginalized groups, providing career Guidance and placement service to TVET students, enhancing participation of women in TVET and Gender mainstreaming through affirmative action and integration of aspects of Technology and Vocational Education and Training in curriculum at all levels of Education.

5.4 Conclusion of the study

With reference to the findings of the study, it was concluded that;

Grades scored in last National examinations like in Kenya, the Kenya Certificate of Secondary Education (KCSE) influence enrolment in TVETs. The grade scored by a KCSE candidate in Kenya forms the basis for placement in Tertiary institutions by the Kenya Universities and Colleges Central Placement Service (KUCCPS). This body has distributed how the various tertiary institutions would share the secondary school graduates. Those who score C+ ad above are placed in universities to take undergraduate degree courses while those who scored C, C-,D+, D, D- and E are placed in other tertiary institutions. The study found out that, very few of those who scored C+ and above opted to enrol in TVETs. Majority of those who enrolled in TVETs had scored grades C- to E since most of those who scored grade C constant opted to enrol in the universities and other colleges to take academic oriented courses. The findings further identified that, gender influenced enrolment in TVETs since more males enrolled in TVETs than females despite the fact that records in the Kenya National Examination Council (KNEC) essential report on performance for past 5 year indicate that more females scored grades C- to E than males. The results of hypothesis 2 on socioeconomic status namely the level of education of parents or guardians, income of the parents and occupation significantly influenced enrolment in TVETs. The findings also indicated that, courses on offer significantly influene enrolment in TVETs. Course that on completion enable direct absorption of graduates into labour market either through job placement or self-employment are more popular and attract more trainees to enrol in the TVETS. Such courses included engineering, both electrical and mechanical, hairdressing and beauty

therapy, tailoring and garment making besides hospitality courses. The study indicated that the TVET graduates gained employable skills and self employment skills after successful completion of the courses enrolled to. This was evidenced by the fact that majority of instructors and trainees indicated that the courses offered in the TVETS equipped the graduates with skills necessary for job market. There ws also significant relationship between attitude of trainees and enrolment in TVETs. Negative attitude discouraged prospective trainees from choosing TVET oriented careers due to the negative publicity that the TVETs are for those who failed in KCSE and that TVET careers are not remunerated highly. Attitude change towards TVETs would positively influence enrolment in the TVETs. There was mismatch between some TVET courses on offer and job market skills. This is evidenced by the fact that few trainees (4.2%) of the trainees indicated that the courses offered do not equip trainees with necessary skills for job placement and 6.3% of trainees pointed out that the courses offered do not meet trainees' needs for self-employment. This situation negatively influences enrolment in TVETs. The study revealed that there is negative attitude of trainees towards TVETs evidenced by the fact that most trainees indicated they would not have joined TVET if they had scored a better grade. Scoring high grades of C+ and above negatively influences enrolment in TVETs. The study revealed that majority of trainees come from families of low socioeconomic status since 71% of trainees indicated that their parents or guardians are not able to provide for financial requirements of their training in the TVET and 61.03% of the trainees indicated that they have been sent home to collect fees. This impacts negatively on enrolment since the few trainees who enrol may end up dropping out of training reducing the enrolment further. The study finally concluded that there

were a number of challenges facing TVETs which need attention for enrolment to increase and the TVET institutions to be fully utilized. The overall conclusion from the study is that, the grade scored by a candidate in KCSE if it is C+ and above has negative influence on enrolment, the courses on offer can result in increased enrolment if there are some specifically tailored for C+ and above grade scorers and if the courses meet market demands and that negative attitude towards TVETs as institutions of those who failed in KCSE would change when stakeholders realise that there are trainees joining TVETs with high scores of C+ and above hence enrolment would increase.

5.5 Recommendations from the study

On the basis of the findings and conclusions of the study, a number of recommendations have been made. The researcher recommends that: -

i Trainees enrolled with quality grades of C+ and above can have courses tailored specifically for them so as to encourage them to enrol in TVETs in large numbers to boost overall enrolment. The courses can be taught in selected TVETS for the beginning and affiliated to universities for examination and awarding of degree to improve the image of TVETS since universities are offering degrees in technical areas like engineering of different levels.

Alternatively, the Government through TVETA can authorize the TVETS to offer higher diploma and undergraduate courses in some fields like Electrical installation, wiring, automotive engineering, plumbing among others to offer courses for C+ and above prospective trainees, which will be a boost to those who wish to pursue careers related to TVETS.

This step will also encourage continuing trainees in the lower cadre of scores of C – E since they will see a possibility of transition from one level to another within the same TVET institution without having to seek admission into universities for undergraduate studies afresh.

ii The government of Kenya has done a lot in supporting the TVETs as stated in literature review and findings of this study by reducing the fees payable by TVET trainees through provision of grant of ksh.30, 000 and inclusion of the TVETs for HELB funding by offering a maximum loan of ksh.40, 000 that even includes some considerable amount for subsistence to cushion trainees from low socioeconomic backgrounds. The researcher further recommends that, the government explores the possibility of paying examination fees for TVET trainees in a similar way examination fees is paid for secondary school graduates under the free day secondary school programme where all secondary school learners have their KCSE examination fees paid by government to KNEC for first attempt. The government can consider remitting examination fees for TVET graduates to the examining bodies in the TVETs. The inclusion of TVET in HELB funding is quite commendable in assisting those trainees who are not able to raise the TVET fees and cater for their subsistence in the course of their study. The researcher further recommends that the government, through the higher education loans board, organises for the release of funds early enough before the reporting date since this will enable the trainees from low socioeconomic backgrounds to enrol with ease and in time after placement. The findings of the study have shown that,

some trainees defer reporting so as to wait for TVET loan from HELB to be processed while others never report if they do not qualify for the TVET loan.

iii The curriculum to be industry based and demand driven to ensure TVET graduates get employment. The skill development system in Kenya follows a curriculum based, time bound approach as opposed to demand driven approach and certification is based on completion of courses rather than demonstration of competency. Therefore, a shift from this tradition would be in favour of increased enrolment in TVET institutions. There are many service providers of curriculum development and assessment in TVET (KNEC, NITA among others) but improvement and co-ordination needs to be done to reform curriculum development and assessment for skill acquisition rather than course completion so as to ensure global competitiveness.

iv TVET courses need to be market driven and address the needs of work place and provide holistic training that promotes self-employment. The courses need to include a rich range of core competencies; values, life skills, and other critical skills to enhance employability or self –employment and ensure all the courses in TVET are competence based, market driven, and holistic so as to enhance employability and equip the trainees with necessary skills and attitudes to face the challenges of modern living. In addition, continuous reform to curriculum is necessary to shift from time bound curriculum-based training and supply-led training to demand driven training and enhance entrepreneurship and technopreneurship in all TVET courses to promote self-reliance in all graduates.

v The findings show that the attitude towards the TVET institutions as a whole is the one which is negative but attitude towards the TVET courses on offer in the TVETS is positive. The trainees indicated that they are gaining important technical skills which will enable them to be employed by some companies or they can singly or jointly form “workshops” to provide services in the areas they trained in.

In this light of information, the researcher recommends that TVET institutions market themselves through social media by publishing success stories from the TVET graduates obtained through tracer studies and have exhibitions and awarding fares for leading innovative graduates practicing in the communities for those already in secondary school to emulate and make informed decision to pursue careers in TVETS.

Additionally, just like the way insurance companies have field agents who market their products, TVET institutions can employ this strategy and have field agents who will visit secondary schools and market the TVET institutions to the candidate classes by giving them first-hand information on the courses offered, mode of payment of school fees and exam fee and share the success stories of self-employment and group workshops of graduates so that candidates in secondary school will be aware there is life after even scoring grades C – E regarding the future career courses.

vi Collaboration with consumers of TVET graduate services is another area the researcher recommends. This will enable the TVETS to understand the labour

market and come up with courses tailored for the labour market hence demand driven which will have boosted enrolment in the TVETS for those trainees in need of employable skills.

This comes in hand because the findings of the study have shown that a very small number of the TVETS (2%) have stakeholder engagement plans beyond industrial attachment for their trainees despite the fact that some level of collaboration has been noted in other areas like in the development of curriculum/courses for the TVETS and teaching-learning materials and the provision of short courses for those already employed by some companies and industries to equip them with necessary skills and fill identified gaps in their field of operation.

It is important to note that, this level of collaboration is for all persons working in industries and not directed to "graduates of TVETS" only hence the collaboration does not come out clearly to be a motivating factor for prospective trainees to make up their minds to enrol in the TVET institutions and as a result raise the enrolment in TVETS (Obwoge , 2013; Rai han, 2014; and New straights time 2014). The researcher recommends boosting enrolment in TVETS through forging closer links with the industries beyond seeking attachment for trainees which can widen employment opportunities for those seeking employment after graduation.

Close collaboration of TVETS and stakeholders in the communities that focuses on improving technical capacities, exploitation of commercialization potentials, bridging the demand and supply gap so that graduates do not over-enrol in some

courses leading to unemployment of graduates and under-enrol in other courses leading to extreme scarcity of graduates who can offer related services to the industries and the community as a whole. Exchange of knowledge between institutions and community could lead to courses tailored to meet needs of the society and change attitude towards TVETs and consequently increase enrolment in TVETS.

vii The researcher further recommends that TVETs be innovative and creative to a greater extend such that the TVET Curriculum Design does not remain static in the courses on offer. New courses the target addressing of Pertinent and Contemporary Issues (PCIs) are required to be part of the courses on offer. This is because the findings of this study have shown that the courses being offered in the various TVETs have been on offer for a long period of time. New course on recycling of used products like plastics, wooden materials, papers and electronic wastes (E-Waste) like damaged phones, phone chargers, dry cells and metallic implements since most of them are not even being purchased for recycling purposes like the phones, phone chargers, obsolete CPUs, computer monitors just to name but a few of the E-wastes. Such courses can go a long way in alleviating environmental pollution. Another PCI of concern is the Covid-19 pandemic and the use of masks. TVETs can be on the forefront to come up with courses which can produce reusable masks since use of masks has been there from time immemorial but the type of masks being produce keep on deteriorating in quality. The masks used for protection of people during chemical and biological warfare were of higher quality but bulky. New designs of higher quality which are not

bulky would have been developed in the department of PCIs. It appears nowadays recycling of glass bottles and glass laboratory apparatus has lacked innovation since these are now accumulating in the environment and becoming a menace. The same applies to ceramics which includes plates and cups. Courses leading to such innovations are needed in the TVETs.

viii Increase employability of TVET graduates by aligning courses on offer with market demands, promote research and patenting of TVET innovations, integrate pro-active job skill matching by seeking business opportunities and jobs through domestic and international labour market intelligence, conduct publicity campaigns for TVET institutions and integrate role modelling and mentoring in TVET sector. Additional recommendations on attitude change include, implement the principle of self-paced learning to boost enrolment rates, widening industry, partnerships to provide trainees with on the job industrial attachments and exposure to real life industry projects and applications

5.6 Suggestions for further studies

The researcher, through this study has suggested various areas for further research. These researchable areas were:

i) Technical and vocational education and training and dynamism in technology in fulfilling needs of the society

ii) Childhood career aspirations and influence on enrolment in TVETs

iii) Tracer studies on TVET institution graduates on effectiveness of use of skills gained and adaptability to dynamism in technology

iv) The usefulness of TVET institutions in solving youth unemployment in the community

v) E-waste disposal; can technical vocational education and training be the solution?

vi) Addressing Pertinent and Contemporary Issues: Focusing on TVETs for Everlasting solution

vii) Technology explosion and TVETs as epicenter.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

Benard Makato

Department of Educational,
Administration and Planning
University of Nairobi.
P.O BOX 92, KIKUYU
Date: 6th/October/2021

The Principal,

……..

Dear sir/madam,

RE: PERMISSION TO CONDUCT A RESEARCH IN YOUR INSTITUTION

I am a student at the University of Nairobi and in partial fulfilment of the requirement for the award of a Degree of Doctor of Education in curriculum studies, am conducting a survey on the **'Individual and Institutional Determinants of Trainees' Enrolment in Public Technical Vocational Education and Training Institutions in Nakuru County, Kenya'.** This study will target the principal, trainers and trainees as the respondents to provide important information of research interest. I will be grateful if you allow me to involve you, your instructors and trainees in this study. Your views are important to this survey. I kindly request you to allow me conduct research in your institution. Information obtained will be purely for the purpose of this research and the identity of the respondents will be treated as strictly confidential.

Thank you for your cooperation and assistance.

Yours faithfully,

Benard Makato

APPENDIX II INTERVIEW SCHEDULE FOR THE PRINCIPALS

I kindly request you to provide information on individual and institutional determinants of trainees' enrolment in your TVET institution. The purpose of this interview is to establish how grades scored in KCSE influence trainees' enrolment, the effect of socioeconomic status on enrolment of trainees, the influence of courses on offer on trainees' enrolment and to assess the extent to which trainees' attitude affect their enrolment in your institution.

PART A: TVET Principals Profile

1. How long have you served as principal in this institution?
2. What is your highest academic qualification?
3. Did you study in a TVET institution? Please explain your response.
4. What prompted you to choose this line of career in TVETs?
5. Which professional or Academic qualification enabled you to become a TVET principal and from which institution was the qualification earned?

PART B: Individual and Institutional Determinants of Trainees' Enrolment

1. The survival of a scholastic institution greatly relies on enrolment.
    a) How is the enrolment rate in your institution compared to its capacity?
    b) What could be the reasons behind the rate you stated?

c) TVET institutions are critical in providing life-long skills that meet the needs of the work place, industry and self-employment. Which is the common grade in KCSE do you consider when enrolling trainees?

d) Does the grade you have stated above influence the course the trainee is admitted to take?

e) If yes, give brief explanation of courses offered and grades scored in KCSE

f) Are there times you enrol trainees with C+ and above in KCSE?

g) If yes, are there special courses for such trainees?

2. Trainees pay registration fee, tuition fee, boarding fee and any other dues to your institution.

a) On average, how much is a trainee expected to pay during registration?

b) Do the trainees pay the fees promptly as required by your institution?

c) Are there some trainees who miss lessons due to non-payment of school fees?

d) How can you rate trainees' clearance of dues owed to the institution?

3. There is a variety of courses offered by your institution.

a) Do the courses offered in your institution attract many trainees?

b) Graduates aspire to be employed after graduating.

i) Have you partnered with some organizations or companies to absorb your graduates?

ii) If so, name three such companies or organizations.

c) Do your trainees after graduating join universities to further their education?

d) If yes, does this influence enrolment in your institution positively?

4. Trainees at times can lose interest in the courses they are taking or even the institution.
    a) Do trainees in your institutions show interest in the course they are taking?
    b) If so, what are the indicators of their interest in the courses they are taking?
    c) Is there any one time your trainees recommended prospecting trainees to enrol in your institution and what reason did they give?
    d) Which courses offered in your institution have the highest number of trainees?

Thank you for your participation.

APPENDIX III: QUESTIONNAIRE FOR TRAINERS

This questionnaire is designed to collect data on the individual and institutional determinants of trainees' enrolment in public technical, vocational education and training institutions in Nakuru County. The information provided will be used for academic purposes only.

Please fill this questionnaire by putting a tick [√] to indicate the correct answer or by filling in the required information in the spaces provided.

Section A: Demographic variables.

1. Indicate your gender?

   a) Male [ ] b) Female [ ]

2. What is your age bracket?

   a) Below 20 year [ ] b) 20 – 30 year [ ] c) 31-40year [ ] d) 41 – 50 years [ ]

   e) 50 and above [ ]

3. For how long have you been training in this TVET?

   a) Below 1 years [ ] b) 1 -5years [ ] c) 6years and above [ ]

4. What is your qualification?

   a) Certificate [ ] b) Diploma [ ] c) Higher Diploma [ ] d) Degree [ ]

   e) Masters [ ] f) Doctorate [ ]

5. Did you study in TVET institution? Please explain.

……..

……

6. Which academic or professional qualification earned you the position of instructor and which institution awarded you the credential?

……..

……

Section B: Grade scored in KCSE and trainees' enrolment in TVET institutions

7. Do you enrol trainees who scored C+ and above in this TVET? If yes, what is the percentage compared to entire population?

8. In your own assessment, do students with C+ and above whenever enrolled do better than those with C and below in KCSE?

a) Yes [ ] b) No [ ].

Explain…….....

9. How can you rate the current enrolment by the trainees in various curriculum courses within your TVET institution?

(i) Adequate [ ] (ii) Not adequate [ ]

10. If your response in 9 above is "Not adequate", what could be the reasons

…….

…….....…….

Section C: Influence of Courses offered on trainees' enrolment in TVET institutions.

11. How do you rate the following statements as they relate to the relevance of the TVET courses offered? Please indicate by ticking -Strongly agree (SA), agree (A) Disagree (D), strongly disagree (SD).

	Statement	**SA**	**A**	**D**	**SD**
a.	The courses offered fulfil market needs hence more trainees enrol.				
b.	The courses offered meet the trainees' needs.				
c.	The courses offered have attracted more trainees.				
d.	The courses offered equip the trainees with skills for self-employment.				

Section D. Effect of trainees' Attitude on enrolment in TVET institutions.

12. What is the attitude of trainees towards TVET institutions generally?

a) Positive [ ] b) Negative [ ]

11. If negative, suggest any three reasons why they chose to be enrolled in TVET

i)……

……..

ii)……

……

iii)……

……

13. Please indicate by ticking (√) -Strongly agree (SA), agree (A) Disagree (D), strongly disagree (SD) to rate the statements on the perception of trainees towards TVETs

	Statement	**SA**	**A**	**D**	**SD**
a.	Trainees prefer theoretical work to practical work				
b.	Given the opportunity to join academic oriented courses, trainees would not have enrolled in TVET				
c.	Trainees enrolled in the TVET to gain skills for self-employment				
d.	TVETs are dumping grounds for school dropouts				
e.	TVETs are institutes for accommodating children of the poor				
f.	TVETs are institutions for preoccupying the youth				
g.	TVETs are good for non-performers in academics				
h.	Parents encourage their children to join TVETs				
i.	Parents are aware of the presence of the TVETs and courses offered				

Thank you for your time and cooperation.

APPENDIX IV: QUESTIONNAIRE FOR TRAINEES

This questionnaire is designed to collect data on individual and institutional determinants of trainees' enrolment in public TVETs in Nakuru County. The information provided will be used for academic purposes. Please fill this questionnaire as accurately as possible by putting a tick [√] to indicate the **correct answer.**

Section A: Demographic variables.

1. Indicate your gender.

a) Male [ ] b) Female [ ]

2. Indicate your Age.

a) 12-16years [ ] b) 17-21years [ ] c) 22-26 year [ ] d) 27 and above [ ]

3. What was your level of education prior to joining the current institution?

a) CPE [ ] b) KCPE [ ] c) KCSE [ ] d) Diploma [ ]

Section B: Influence of grade scored in KCSE on trainees' enrolment in TVET institutions

4. Indicate with a tick (√) the bracket of grade scored in KCSE if your answer in 3 above is "c"

a) C+ and above [ ] b) C and below [ ]

5. Which course are you enrolled in?

a) Diploma [ ] b) Certificate [ ] c) Artisan [ ]

6. Would you have enrolled in TVET if you had a higher grade than the one you scored?

a) Yes [ ] b) No [ ]

7. If no, state the type of institution you would have

joined……

Section C: Socioeconomic status and trainees' enrolment in TVET institutions

8. Are your parents able to provide for all your financial training requirements?

a) Yes [ ] b) No [ ]

9 .Do your parents/guardians pay your school fees in time?

a) Yes [ ] b) No [ ]

10. Have you ever been sent home due to non-payment schools fees?

a)Yes [ ] b) No [ ]

11. Do you have the following items in your family? Tick appropriately

a) Bicycle [ ] b) Motorcycle [ ] c) Car [ ] d) Tractor [ ] e) Not Applicable [ ]

12. What is the level of education of your parents or guardian? Tick appropriately

a) Primary [ ] b) Secondary [ ] c) Diploma [ ] d) Bachelors Degree [ ] e) Masters Degree [ ] f) PhD [ ] g) Not Applicable [ ]

13. i) what does your parent or guardian do to earn a living? Tick appropriately

a) Employed [ ] b) Self-employed [ ] c) unemployed [ ] d) Not Applicable [ ]

ii) If your answer above is "a", indicate by ticking appropriately

a) Formal employment [ ] b) Informal Employment [ ]

14. How can you describe the adequacy of total income in your family based on standards of living?

a) Very adequate [ ] b) Adequate [ ] c) Inadequate [ ] d) Not Applicable [ ]

Section D: Influence of Courses offered on enrolment in TVET institutions.

15. How do you rate the following statements as they relate to the relevance of the courses offered in TVET? Please indicate by ticking -Strongly agree (SA), agree (A) Disagree (D), strongly disagree (SD).

	Statement	**SA**	**A**	**D**	**SD**
a.	The courses offered fulfil market needs.				
b.	The courses offered meet the trainees' needs for self-employment.				
c.	The courses offered have attracted more trainees.				
d.	The courses offered equip the trainees with technical skills necessary for job placement.				

16. Upon completion of the current course you are taking, would you like to pursue the same to higher level?

a) Yes [ ] b) No [ ].

Please give a reason for your answer above

.....

Section E. Trainees' Attitude and enrolment in TVET institutions

17. In your own opinion do your fellow trainees enjoy being in a TVET institute?

a) Yes [ ] b) No [ ]

18. Was TVET institution your preferred choice after you completed primary or secondary school?

a) Yes [ ] b) No [ ].

19. Would you recommend your colleagues to join a TVET institution?

a) Yes [ ] b) No [ ].

20. Please indicate by ticking (√) -Strongly agree (SA), agree (A) Disagree (D), strongly disagree (SD) to rate the statements your perception towards TVETs

	Statement	**SA**	**A**	**D**	**SD**
a.	As a trainee I prefer theoretical work to practical work				
b.	Given the opportunity to join academic oriented courses, I would not have enrolled in TVET				
c.	I enrolled in the TVET to gain skills for self-employment				
d.	I enrolled in TVET because I dropped out of school				
e.	I enrolled in TVET because I come from a poor family				
f.	I joined TVET to be preoccupied and grow				
g.	I joined TVET because I performed poorly in school				
h.	I was encouraged by my parents to join TVET				
i.	Our parents are aware of the presence of the TVETs and courses offered				

Thank you for your time and cooperation.

APPENDIX V: DOCUMENT ANALYSIS GUIDE

1. Trainees Number and grades scored in KCSE

Grade Scored	Tally	Total
C+ and above		
C to C-		
D+ to E		

b) Actual enrolment for all courses……..

2. Check the records at the dean of curriculum and brochures for courses on offer

Dean's Records and Brochures for Courses on offer

S/No.	Diploma Courses	No. of Trainees	S/No.	Certificate Courses	No. of Trainees	S/No.	Artisan Courses	No. of Trainees
i)			i)			i)		
ii)			ii)			ii)		
iii)			iii)			iii)		
iv)			iv)			iv)		
v)			v)			v)		
vi)			vi)			vi)		
vii)			vii)			vii)		
viii)			viii)			viii)		
ix)			ix)			ix)		
x)			x)			x)		
xi)			xi)			xi)		
xii)			xii)			xii)		
xiii)			xiii)			xiii)		
xiv)			xiv)			xiv)		
xv)			xv)			xv)		

3. Check graduation list to confirm and compare the number of trainees enrolled and those who completed

Graduation List Summary in Relation to Admission Register

Number Enrolled (in Admission Register)	Number Graduated

4. Scrutinise graduation list to match performance in KCSE and performance in the course being taken to confirm whether those who performed better in KCSE are performing better in the TVET examinations

Performance in KCSE and Performance in Course Taken

Performance in KCSE	Performance in Courses Taken		
	Distinction	Credit	Pass
C+ and above			
C to C-			
D+ to E			

5. Check progression of trainees in the courses they are enrolled in

Progression of Trainees

Course	Exceeds Expectations	Meets Expectations	Below Expectations
Diploma			
Certificate			
Artisan			

6. Check the distribution of courses on offer to the enrolled trainees to get the ones with higher enrolment

APPENDIX VI: RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **235768**

Date of Issue: **23/August/2021**

RESEARCH LICENSE

This is to Certify that Mr.. Benard Kyalo Makato of University of Nairobi, has been licensed to conduct research in Nakuru on the topic: INDIVIDUAL AND INSTITUTIONAL DETERMINANTS OF TRAINEES' ENROLMENT IN PUBLIC TECHNICAL VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN NAKURU COUNTY, KENYA for the period ending : 23/August/2022.

License No: **NACOSTI/P/21/12459**

235768

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

APPENDIX VII: RESEARCH AUTHORIZATION MINISTRY OF EDUCATION

MINISTRY OF EDUCATION

STATE DEPARTMENT OF EARLY LEARNING OF BASIC EDUCATION

Telegrams: "**EDUCATION**",
Telephone: **051-2216917**
When replying please quote
Email:cdenakurucounty@gmail.com

COUNTY DIRECTOR OF EDUCATION
NAKURU COUNTY
P. O. BOX 259,
NAKURU.

Ref. CDE/NKU/GEN/4/1/21 VOL.II/29

5th October, 2021

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION – BENARD KYALO MAKATO
PERMIT NO. NACOSTI/P/21/2459

Reference is made to letter NACOSTI/ P/21//2459 dated 23rd August, 2021

Authority is hereby granted to the above named to carry out research in Nakuru County, Kenya on the topic: "***INDIVIDUAL AND INSTITUTIONAL DETERMINANTS OF TRAINEES' INROLMENT IN PUBLIC TECHNICAL VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN NAKURU COUNTY*** "for the period ending ***23/08/2022.***

Kindly accord him the necessary assistance.

COUNTY DIRECTOR OF EDUCATION NAKURU COUNTY P. O. Box 259 NAKURU

Lilian Anode
For: COUNTY DIRECTOR OF EDUCATION
NAKURU

Copy to:

- University of Nairobi

APPENDIX VIII: RESEARCH AUTHORIZATION COUNTY COMMISSIONER

OFFICE OF THE PRESIDENT
Ministry of Interior and Coordination of National Government

Email: ccnakurucounty@yahoo.com
ccnakurucounty@gmail.com

COUNTY COMMISSIONER
NAKURU COUNTY
P.O. BOX 81
NAKURU

When replying please quote:

Ref No. CC. SR. EDU 12/1/2/VOL.V1/47

6th October, 2021

To: ALL DEPUTY COUNTY COMMISSIONERS
Nakuru East Sub-County
Nakuru West Sub-County
Nakuru North Sub-County
Subukia sub –County
Rongai Sub-County
Njoro sub-County
Molo Sub-County
Kuresoi North Sub-County
Kuresoi South Sub-County
Gilgil Sub-Count
Naivasha Sub-County

RE: RESEARCH AUTHORIZATION – BENARD KYALO MAKATO
LICENSE NO. NACOSTI/P/21/12459

The above named from University of Nairobi has been authorized to carry out research on: **Individual and Institutional Determinants of Trainees' Enrolment in Public Technical Vocational Education and Training Institutions in** Nakuru County, for a period ending **23/August/2022.**

Please accord him all the necessary support to facilitate the success of his research.

ANDERSON AYUKU
FOR: COUNTY COMMISSIONER
NAKURU COUNTY

DEPUTY COUNTY COMMISSIONER
NAKURU EAST SUB COUNTY
P. O. Box 81-20100
NAKURU

APPENDIX IX: AUTHORIZATION COUNTY GOVERNMENT OF NAKURU

REPUBLIC OF KENYA
COUNTY GOVERNMENT OF NAKURU
PUBLIC SERVICE, TRAINING AND DEVOLUTION

Telephone: (051) 2214142 EXT. 131
E-Mail: pstd.co@nakuru.go.ke
Fb: nakuru county government-official
When replying quote our ref;

Office of Chief Officer
P.O. Box 2870-20100
www.nakuru.go.ke
twitter: @nakurucountygav

Ref: NCG/PSM/2/13VOL.I (34)

Date: 7th October, 2021

TO WHOM IT MAY CONCERN

RE: AUTHORIZATION TO CONDUCT RESEARCH: MR. BENARD KYALO MAKATO I.D NO. 10175552

The above-named person has been licensed by the national Commission for Science, Technology and innovation vide license number: NACOSTI/P/21/12459 to conduct research in Nakuru County on the topic: **INDIVIDUAL AND INSTITUTIONAL DETERMINANTS OF TRAINEES'ENROLMENT IN PUBLIC TECHINICAL VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN NAKURU COUNTY, KENYA** fort he period ending 23rd August 2022.

Please accord him the necessary assistance he may need from your good office.

Paul K. Githinji
Chief Officer - Public Service, Training & Devolution
FOR: County Secretary & Head of Public Service

CHIEF OFFICER
PUBLIC SERVICE MANAGEMENT
& ADMINISTRATION
NAKURU COUNTY
Sign.....
Date.....

Copy to:

- County Executive Committee Member, Public Service, Training & Devolution
  NAKURU COUNTY
- Mr. Benard Kyalo Makato -0725691469
  P. O. Box 300-90300
  MAKUENI COUNTY

A secure, cohesive and industrialized county