

# Individual and Institutional Determinants of Trainees' Enrolment in Public Technical Vocational Education And Training Institutions In Nakuru County, Kenya

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## ABSTRACT

The purpose of this study was to investigate the individual and institutional determinants of trainees' enrolment in public, technical vocational, education and training (TVET) institutions in Nakuru County, Kenya. The study was informed by the large number of secondary school graduates idling in the community and efforts by the government of Kenya to raise enrolment in TVETs for skill training to actualize vision 2030. The study sought to investigate whether grades scored in secondary examination had influence on student enrolment to public TVETs in Nakuru County, Kenya. The study was guided by the Social Learning Theory of Career Decision Making (SLTCMD) 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. Data was collected by use of interview schedule for the TVET principals, questionnaires for trainers and trainees and document analysis. Data were processed and analysed qualitatively and quantitatively. Descriptive statistics which included frequencies, percentages, means and standard deviations were generated and used in presenting research findings. Statistical tests were done using correlation coefficient and one-way analysis of variance (ANOVA) at 95% confidence interval of the difference ( $\alpha=0.05$ ) to be sure true mean is used. The findings of the correlation between grades scored in secondary examination and enrolment in TVETs showed that,  $P$  value was  $0.210 > P=0.05$ , therefore  $H_0$  was rejected and a conclusion made that there was significant relationship between grades scored in Kenya Certificate of secondary Education (KCSE) and enrolment of trainees. Based on the findings, the study concluded that, grades scored in KCSE determined enrolment in TVETs and formed the basis for placement in all tertiary institutions, TVETs included. The researcher recommended that, TVETs should offer courses tailored for all grades from A to E since the findings of the study showed that the courses offered are tailored for prospective trainees who scored mean grade C to E, leaving out grades A to C+ which could increase enrolment.

**KEY WORDS:** Technical Vocational Education and Training, Enrolment, Institutional and Individual Determinants, Prospective Trainees, Grade Scored

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## I. Introduction

Education and training is 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). 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 Vocational Training Education 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. Technical and 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). 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 Education in Nigeria due to poor implementation of policies in relation to TVET funding and resource distribution.

The parents in every community look down on TVET. Consequently, bright students do not enrol in TVET as their parents prioritize paying for academic oriented careers hence TVET becomes the dumping ground for those whose academic capacity is low. A study by Mulongo and Kitururu (2016) in Tanzania on determinants for positioning and marketing TVET found that, students who do not excel in secondary education are the ones who enroll 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. Ramhari Lamichhane (2013), Nazier & Muhd (2019) and Okello (2011) all agree with Mulongo and Kitururu (2016) on the fact that TVETs generally enrol trainees who score low grades in secondary education.

Kenya is grappling with the situation of few TVET Institutions and perpetual low enrolment. The country has continually enacted legal framework to address Education and Training in Kenya putting more emphasis to TVETS. The constitution of Kenya 2010, 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. 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. To achieve this vision, 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 development. National Educational Sector Support Programme (NESSP) has come up with the National Education Sector Strategic Plan (NESSP) 2018-2022, with its elaborate causal chain that provides explicit linkages from programme activities to the NESSP 2018- 2022 strategic objectives that are geared towards achievement of vision 2030. The NESSP 2018-2022 adopts a thematic level planning by sub-sectors, TVET being one of them to carry out training and skills development in science, technology and innovation for achievement of vision 2030 (MOE-NESSP 2018).

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'. 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 in fear of being associated with failures in academic performance. To improve on enrolment in TVET, the government of Kenya has taken a number of measures to enhance training. The Kenya 2013 TVET Act, which aims at strengthening the relevance and quality of TVET has incorporated TVETs with the private sector to deliver skill acquisition and training (Republic of Kenya, 2013). 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 structures in the TVET 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 legal documents ensure TVET operations are streamlined to equip trainees with necessary skills. The operationalization of the TVET bill as per the constitution of Kenya requires well trained human resources which do not have to be trained in the universities. The county government, through concerted efforts of TVET institutions can develop and offer training tailored towards ensuring that, the county government meet their constitutionally delegated mandate of providing immense opportunities for youth training and subsequent youth employment in Kenya (Government of Kenya (2010), Government 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 the Technical Vocational Education and Training County Director in Nakuru County, confirms low enrolment, access and participation (Lang'at, 2015). The TVET county director attributes low enrolment of trainees as a product of the targeted group of those who drop out of primary education and those who perform poorly in secondary education scoring grades that range from C- to E and low remuneration of TVET graduates as compared to academic oriented careers. Records accessible at the Ministry of Education in Nakuru County

indicate that, despite TVET institutions having a capacity to accommodate many trainees; total enrolment is low and as a result, the institutions are underutilised.

### **STATEMENT OF THE PROBLEM**

Globally, education and training is recognised as the key to human capital development. Technical Vocational Education and Training (TVET) offers human capital development through provision of lifelong skills that meet needs of work place, industry and self-employment. Unfortunately, enrolment in TVET institutions worldwide is low, Kenya included and this has caused high percentage of youths legible for training in TVETs due to low grades scored in secondary schools remain untrained. Nakuru County is reeling with her share of low enrolment 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 TVETs of Nakuru County putting the idle unemployable youth at risk of indulging in drugs and substance abuse. As a result of this identified gap, this study was conducted to investigate the individual and institutional determinants of trainee enrolment in public, technical vocational education and training institutions in Nakuru County, Kenya, with the aim of increasing enrolment of youth to TVETs so as to equip them with employable and self-employment skills to enable them to be involved in nation building.

### **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

### **RESEARCH OBJECTIVE**

The study was guided by the following specific objective

To establish how grades scored in Secondary Examination influenced trainees' enrolment in Public Technical, Vocational, Education and Training institutions (TVETs) in Nakuru County, Kenya.

### **HYPOTHESIS OF THE STUDY**

In order to test the influence of grades on enrolment, a null hypothesis was developed

**H<sub>01</sub>:** 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

### **THEORETICAL FRAMEWORK**

This study is based on the Social Learning Theory of Career Decision Making (SLTCMD). 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 since the preference of educational program or occupation will lead to increased enrolment where the course is offered for career development. The theory 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 include the grade scored in the last national examination like KCSE in Kenya, while previous behaviour and environmental conditions explain the institutional determinants like the courses on offer. The theory is hence suitable to this study on individual and institutional determinants of trainees' enrolment in TVETs since the prospective trainees will make decision to enrol in TVETs which shall lead them to pursue technical oriented career path.

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 which are; 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 choosing of technical career path leading to enrolment in TVETs, Environmental conditions and events 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, learning experiences act on the environment to produce certain consequences and associative learning experiences brought by external stimuli and 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 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 that, enrolment in TVETs can be influenced by the grade scored by the prospective trainee, the decision on career path to take and external forces like enrolment policy and enrolment process.

## **II. LITERATURE REVIEW**

### **Grade scored in Secondary Examinations and trainees' enrolment in TVETs**

The grade scored in secondary education determines the type and nature of tertiary institution the individual will enroll in future. In India, the students who tend to enroll 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), Moenjok 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 enroll 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<sup>+</sup> and above enroll in universities and colleges for academic oriented courses while those who score C, C<sup>-</sup> and D<sup>+</sup> enroll in TVETs to take diploma and certificate courses and the rest D to E enroll to take artisan 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 enroll in TVETs which may impact positively in TVET enrolment in Kenya in future. The implication is that, if the choice of enrolling in tertiary institutions of learning is left to the individual to decide whether to enroll in TVET, colleges or universities without preset inclinations that may make prospective trainees think it is inappropriate to enroll in TVET institutions, then, enrolment would improve with higher academic achievers in KCSE opting to enroll in TVETs. The Kenya National Examinations Council (KNEC) report, which is generated every examination year gives a summary of grades scored against number of candidates. The report indicates that, out of the 12,821 and 15,225 female and male KCSE candidates respectively who sat for KCSE 2020 examinations, those candidates who score grades C to E are more (79.78%) against those who scored C<sup>+</sup> and above (19.03%) (KNEC, 2021). This means that TVETS should enroll adequate trainees 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. To assess whether grades scored in KCSE influence enrolment in TVETs, this study sought to establish the relationship between grades scored in KCSE and enrolment in TVETs in Nakuru County.

## **III. RESEARCH METHODOLOGY**

### **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. As a method, descriptive survey ensures collection of numerical data to answer questions about the status of the phenomena under study. The design explored individual and institutional determinants of trainees' enrolment in public TVET institutions. 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.

### **Target population**

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

### **Sample size and sampling procedure**

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 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 =  $\pm 5\%$ . Using this formula, with the desired confidence level of 95% and precision level of  $\pm 5\%$  the sample size for trainees was given as at least 331 respondents. Therefore, the total sample size was 373 respondents.

### **Data collection instruments**

The tools of data collection for this study were interview schedule for principals, questionnaires for instructors and trainees and document analysis guide. The questionnaires were used for data collection from the trainees because they 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.

### **Data collection procedures**

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 was licensed to conduct research in Nakuru County for a period of one year from 23<sup>rd</sup> August 2021 to 23<sup>rd</sup> August 2022 by license No. NACOSTI/P/21/12459 and applicant identification number 235768. 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 on 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> October 2021 respectively as per the guidelines of NACOSTI license to seek permission from those relevant authorities. 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. Document analysis was conducted on the same day the questionnaires were administered. The documents analysed included admission register which provided information on the number of trainees admitted to the institution, the courses they were enrolled to and the grade they had scored in Kenya Certificate of Secondary Education (KCSE) which made them qualify to be enrolled in that particular course. Other documents analysed were the brochures for analysing the courses on offer per grade scored in KCSE, graduation list to compare number enrolled in a particular year and number graduating and also to get performance in course taken in relation to grade scored in KCSE.

### **Data analysis techniques**

This was done by first cleaning, coding, entering and then analyzing. 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. The researcher then used Statistical Package for Social Sciences (SPSS) IBM version 20 to analyze 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 one- way ANOVA test was applied for

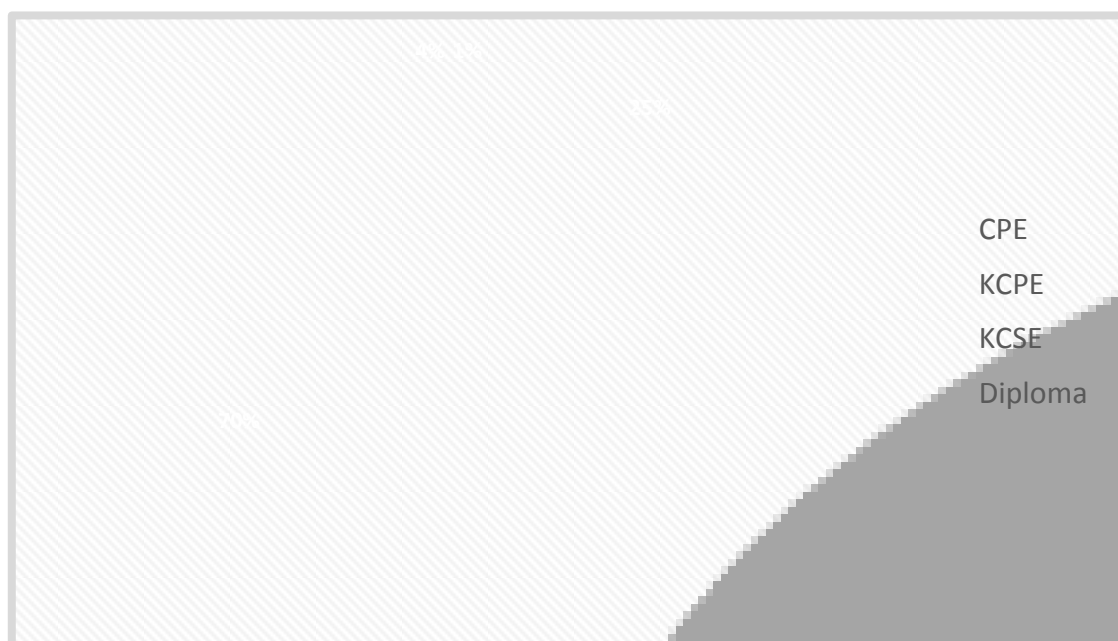
trainers and trainees output to test the null hypotheses against the alternative hypotheses that not all means are the same, at  $\alpha = 0.05$  significance level to test null hypotheses and provide statistical relationship of variables.

#### **IV. Research findings and discussion**

Objective -To establish how grades scored in Secondary Examination influenced trainees' enrolment in Public Technical, Vocational Education and Training institutions (TVETs) in Nakuru County, Kenya. The researcher looked at in-depth information of the grades scored and how the grades influenced enrolment in TVETs. Various aspects of relationship between grade scored and enrolment were explored. A questionnaire item was constructed to establish the grade and the course the trainees are enrolled which was also verified by observation checklist. The responses were presented in figures and frequency tables and percentages.

##### **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 trainees to give responses. The findings were summarized in figure 1

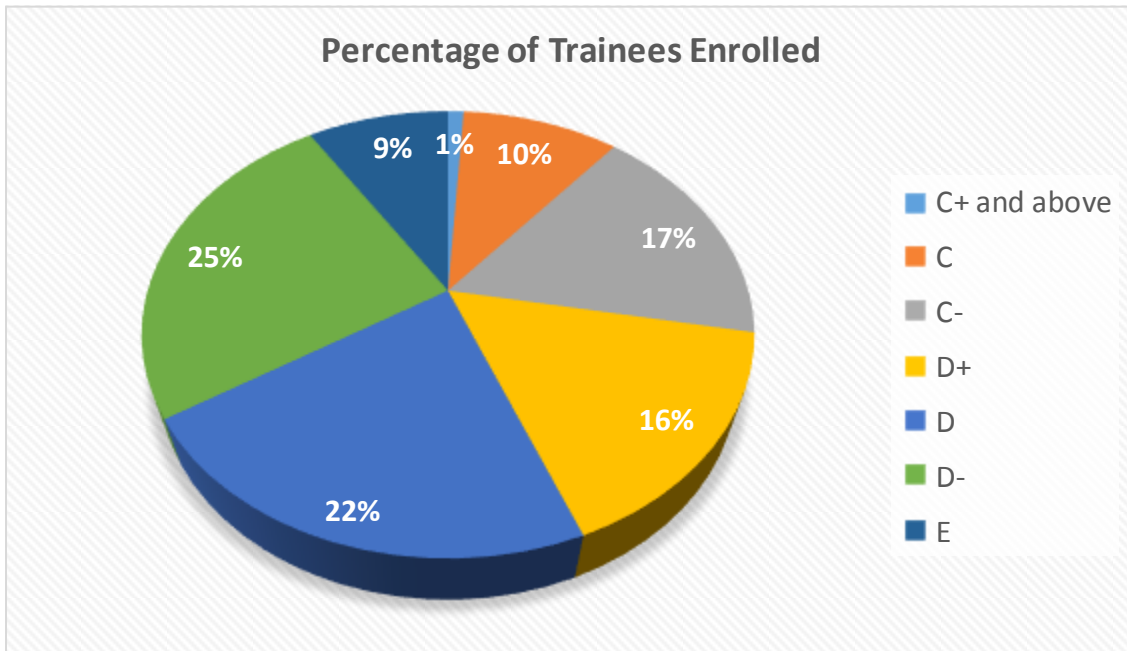


**Figure 1 Percentage enrolment of trainees in relation to level of education**

Figure 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% policy. The KCPE 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. All these groups contribute to overall enrolment in the TVETs.

##### **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. 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 2



**Figure 2 Distribution of trainees enrolled by KCSE grade scored**

The figure 2 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.

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

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 1

**Table 1 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<sub>01</sub>: There is statistically significant relationship between enrolment rate compared to capacity of TVET institution and enrolment grades of C+ and above of the trainees in TVET's

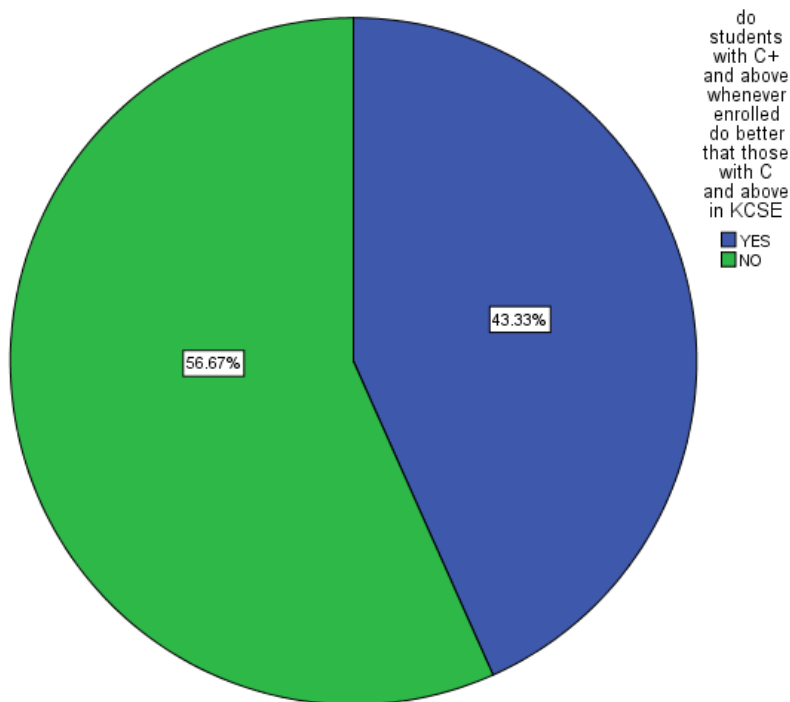
H<sub>1</sub>: There is no statistically significant relationship between how is enrolment rate compared to capacity of TVET institution and enrolment grades of C+ and above of the trainees in TVET's

Since P value is .448 > P=.05, H<sub>01</sub> was rejected and the conclusion made was that there is no statistically significant relationship between enrolment rate compared to capacity of TVET and enrolment grades of C+ and above of the trainees in TVET's

The Pearson correlation is -.222 indicating that there is 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 enrolling in the 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.

**Performance of C+ and above trainees in relation to C and C- enrolled trainees**

The researcher sought to know whether the trainees enrolled with C+ and above grades in KCSE performed better in the courses they are enrolled in than those with C constant and C- since this could influence enrolment. The responses are shown in figure 3



**Figure 3 Percentage performance of C+ trainees compared to C and below**



Figure 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 par 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.

**Testing hypothesis H<sub>01</sub>**

The hypothesis in this study was tested based data collected from respondents on grade scored and how the grade influences enrolment in TVETs and in various courses.

**H<sub>01</sub>:** 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<sub>11</sub>:** 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. 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 2

**Table 2 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			

This hypothesis was tested as shown in Table 2 and from the analysis, it was concluded that, Since p-value is  $0.00 < P\text{-value} = 0.05$ , H<sub>01</sub> 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 as found out in researches done in Thailand by Curtis (2008), Kumiko (2016) in Japan which 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); Moenjackson 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.

**V. CONCLUSION**

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). The criteria set by KUCCPS for placement of KCSE graduates in tertiary institutions is based on the grade scored in KCSE. Those who score C+ and 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. In addition to KUCCPS placement criteria, very few KCSE graduates who scored C+ and above opted to enrol in TVETs even those who scored grade C constant opted to enrol in the universities and other colleges to take academic oriented courses and therefore the researcher concluded that, grade scored by the prospective trainee may be compounded by the attitude of community and prospective trainees towards TVETs due to fact that TVETs are for those who scored poor grades in KCSE.

Enrolment of female trainees in TVETs is lower than that of males despite the fact that records in the Kenya National Examination Council (KNEC) essential report on performance for past 5 year indicated that more females scored grades C- to E than males. The researcher hence concluded that, besides grade scored by prospective trainees at KCSE, determinants of enrolment other than the grade scored in KCSE seem to influence enrolment.

## RECOMMENDATIONS OF THE STUDY

On the basis of the findings of the study, the researcher recommends more mandate to be vested on TVETs through the Ministry of Education (MOE) to enable 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 for prospective trainees, which will be a boost to those who wish to pursue careers related to TVETS and have high scores in secondary education so as to encourage continuing trainees in the lower cadre of scores of C – E to transit smoothly from one level to another within the same TVET institution without having to seek admission into universities for undergraduate studies afresh.

The TVET curriculum to be industry based and demand driven to ensure TVET graduates get employment hence attracting prospective trainees with C+ and above who enrol in academic oriented courses in universities and colleges and miss employment. This in turn would result in increased enrolment. 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 since the graduates would be absorbed instantly in labour market. 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.

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