

**INSTITUTIONAL FACTORS INFLUENCING TRAINEES  
PARTICIPATION RATES IN PUBLIC TECHNICAL, VOCATIONAL  
EDUCATION AND TRAINING INSTITUTES IN MAKUENI  
COUNTY, KENYA**

**Wausi Daniel Mutuku**

**A Research Project Submitted in Partial Fulfillment of the  
Requirements for the Award of the Degree of Master of Education  
in Educational Planning, University of Nairobi**

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## **DECLARATION**

This research project is my original work and has not been presented for award of degree in any other University.

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Wausi Daniel Mutuku

E55/70517/2013

This research project has been submitted for examination with our approval as University supervisors:

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Dr. Rose Obae

Senior Lecture

Department of Educational Administration and Planning

University of Nairobi

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Mr. Ferdinand Mbeche

Lecturer

Department of Educational Administration and Planning

University of Nairobi

## **DEDICATION**

I wish to dedicate this research project to my mother Esther Wausi ,my sister Dr. Agnes Wausi, my dear wife Grace Mutuku and our children: Rosebella, Cornelius, Christiana, Purity, Isabella and Glorious.

## **ACKNOWLEDGEMENTS**

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May the Almighty God bless you all.

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## **ABBREVIATION AND ACRONYMS**

<b>ADB</b>	African Development Bank
<b>CBET</b>	Competency Based Education and Training
<b>CDACC</b>	Curriculum Development Assessment and Certification Council
<b>COTVET</b>	Council for technical and vocational education and training
<b>CTTI</b>	County Technical Training Institutes
<b>GER</b>	Gross Enrolment Ratio
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>NICHE</b>	Netherlands Initiative for Capacity Development in Higher Education
<b>TII,s</b>	Technical Training Institutes
<b>TVET</b>	Technical Vocational Education and Training
<b>UNESCO</b>	The United Nations Educational, Scientific and Cultural Organization

## ABSTRACT

The study sought to investigate institutional factors influencing participation rates of trainees in public technical, vocational education and training in Makueni County. The study was stimulated by the large numbers of youths who sought employment opportunities in the construction of the Standard Gauge Railway which traversed in Makueni County and yet they lacked the prerequisite skills.

The study sought to answer the questions: To what extent does the instructor-trainees ratios influence trainees participation rates in TVET? To what extent does the relevance of training programmes influence trainees participation rates in TVET? To what extent does the availability of financial resources influence the trainees participation rates in TVET? Finally, To what extent does the availability of teaching and learning facilities influence trainees participation rates in TVET? The study was conducted through descriptive survey research design. Data was collected from 16 managers of County Technical Training Institutes, 16 Deans of studies and 375 trainees who were in their final year of training. Data was presented by means of frequency distributions, pie graphs and bar graphs. Analysis was done using percentages, mean and modes.

The major findings of the study were that trainees participation rates in public Technical, Vocational Education and Training institutes were greatly influenced by availability and adequacy of trained and qualified instructors in the various trades offered for training. Relevance of the trades offered, with respect to labour market needs, greatly attracted trainees to the institutions. However, inadequate provision of financial resources to cater for recurrent and capital expenditure immensely contributed to the slow pace of growth and development of the training institutions. Inadequate financial resources had an effect on staff turnover leading to low numbers of trained and qualified instructors in the institutions and inadequate provision of requisite teaching and learning facilities, hampering quality training.

The study recommends, for increased trainees participation and improvement of quality education and training, the authorities should employ more qualified instructors and remunerate them commensurate to their services to decrease staff turnover. The study further recommends for increased provision of financial resources to equip the institutions with modern teaching and learning facilities and diversification of the range of programmes offered to include training in agribusiness and environmental management.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the study**

Education, be it formal, informal, non-formal, academic, technical or vocational has been used in the world from ancient cultures to the present as a means of acquiring knowledge, skills, attitudes, values and competencies which are applied to unearth hidden knowledge and apply them effectively to achieve socio-cultural, economic, political and technological developments. Technical and Vocational Education and Training (TVET) in current years has emerged as a successful human resource development strategy for countries worldwide to progress the much needed technical skills for industrialization and development (UNESCO, 2002).

In many developed countries, TVET is supported by a strong legal and institutional frameworks to increase trainees participation. A study by Solga, Protsch, Ebner, and Brzinsky-Fay (2014), on the Germany Vocational Education and Training (VET) system, indicates that the dual system; consisting of firm-based training combined with school-based learning attracts very high enrollments. Links between VET policy and labour markets have been strengthened. The system offers qualification in broad spectrum of professionals and flexibly adapts to the changing needs of the labour market. VET system as a whole is well resourced, combining public and private funding.

TVET in Africa is bedeviled with challenges. According to a study by Afeti (2014) and Amedormen and Fiagble (2013), TVET in Ghana faces a myriad of problems including: quality and number of TVET institutions are few, affecting enrolments as compared to general or academic institutions; lack of facilities and equipment for training students leading to small student absorption capacity; quality and number of instructors is inadequate.

Other challenges enumerated by Atchoarena and Delluc (2002), include mismatch between acquired skills and market needs; widespread negative public attitudes and perceptions regarding TVET.

However, in Ghana, COTVET has established strategies to reignite interest in TVET, including establishment of the National qualification committee to determine standards and competencies.

TIVET in Kenya, like many other African countries, is limited in scale, scope, quality and relevance. Due to the fact that the institutions are poorly financially resourced, the education and training remain theoretical and the graduates are not valued as skilled than their general academic counterparts by the labour market (Amuka, 2011).

The Kenya Country Strategy Paper (ADB, 2014), explicitly details the major challenges to youth employment in the country are skill mismatch and inadequate training for the mid-level technicians in the current and emerging labour markets. The report notes that skill gap is compounded by weak linkages between the Private and TIVET curricula, resulting in mismatch between supply of and demand for skills.

Nonetheless, regardless of the challenges facing the sub-sector, the Government of Kenya is undertaking various reforms- guided by a number of policy documents to boost access, enrolment, quality and relevance of sub-sector. The Kenya Vision 2030 blueprint under the Social Pillar, recognizes Education and Training as an important key in attainment of Kenya's aim to create a globally competitive and adaptive human resource. TIVET sub-sector is expected to ensure creation of the relevant middle level manpower for socio-economic and technological development leading to attainment of the vision

Other policy changes proposed to spur TVET was the creation of Technical and Vocational Education and Training Authority(TVETA) (GoK, 2013) with the goal to develop an effectively coordinated and harmonized TVET system that is capable of producing quality skilled human resource. In Makueni County, there is only one public Technical Training Institute (TTI). TTIs are designed to offer skills development to students who graduate from secondary level education and fail to be admitted at Universities. As at 2017, the number of public County Technical Training Institute (CTTI) were forty six distributed across the six sub-counties within the county. CTTIs offer skills development to youths transiting from primary school who fail to pursue secondary education. Table 1.1 shows the total trainees enrolment in the County Technical Training Institutes by sub-county and sex between 2014 and 2017.C

**Table 1.1 Trainees Enrolment in CTTLs in Makueni County by Sub-county and sex, 2014- 2017.**

Sub-county	2014		2014		2016		2017	
	Male	Female	Male	Female	Male	Female	Male	Female
Makueni	777	453	662	541	890	601	1825	730
Kibwezi	185	170	178	162	182	194	244	257
West								
Kibwezi	160	134	79	71	78	79	212	249
East								
Kilome	56	101	83	120	149	127	124	189
Kaiti	178	142	189	210	216	225	251	265
Mbooni	338	235	234	288	419	398	374	641
Sub-totals	1694	1235	1425	1392	1934	1625	2691	1935
Totals	2929		22817		3558		4626	

**Source** :Directorate of Vocational Training, Makueni County(2018) and KNBS (2017)

### **1.2 Statement of the problem**

The number of youths inflowing annually to the world of employment per education level in Kenya is on an increase. Despite the government's effort to revitalize education and training, 89 per-cent of these youth still lack vocational and professional skills demanded by the economy. The inadequacy of skills limits the youths participation in labour market (Omolo, 2013).



In Makueni county, the unemployment level is high among employable youths (KIHBS, 2015/2016). The recent developments in infrastructure notably road networks and the Standard Gauge Railway (SGR) constructions attest to lack of or low skills acquisition by the youths seeking employment to this sector. Despite the Government of Kenya efforts to upgrade TVET training to equip the youth with the requisite practical skills for the job market, youth participation in the sub-sector in Makueni county is alarmingly low as shown in table 1.1.

The increased participation of the youth as menial workers in the construction of the infrastructure, notably road networks and the Standard Gauge Railway (SGR) by-passing the county prompted the study to investigate the institutional factors influencing trainee participation rates in TVET in Makueni County.

### **1.3 Purpose of the study**

The purpose of the study was to investigate the institutional factors influencing trainee participation in Public Technical, Vocational Education and Training (TVET) Institutes in Makueni County, Kenya.

### **1.4 Objectives of the study**

The study was guided by the following objectives:

- i. To examine the extent to which the instructor-trainees ratio influence trainees participation rates in TVET in Makueni County.
- ii. To determine the extent to which the relevance of training programmes influence trainees participation rates in TVET in Makueni County.

- iii. To establish the extent to which financial resources to institutions influence trainees participation rates in TVET in Makueni County.
- iv. To assess the extent to which the availability of teaching and learning facilities influence trainees participation rates in TVET in Makueni County.

### **1.5 Research questions**

The study was guided by the following research questions:

1. To what extent does the instructor-trainees ratio influence trainee participation rates in TVET in Makueni County?
2. To what extent does the relevance of training programmes influence trainees participation rates in TVET in Makueni County?
3. To what extent does the availability of financial resources to institutions influence trainees participation rates in TVET in Makueni County?
4. To what extent does the availability of teaching and learning facilities influence trainees participation rates in TVET in Makueni County?

### **1.6 Significance of the study**

The findings of this study may be valuable to TVET policy makers, curriculum planners, curriculum implementers, private and public providers of TVET, and TVET institutions administrators in improving the efficacy of TVET training. New policies on curriculum accreditation may be formulated and improve on the present ones. The findings may go a long way to create responsiveness to Principals and Career Masters or Career Mistresses in Secondary education to diversify curriculum in the level to

open pathways for the youth to the world of entrepreneurship and skill development for self-fulfillment.

The findings may serve as an eye opener to Makueni County Education managers and stakeholders on utilizing the locally available education and training resources to upgrade the skills of the many young secondary school leavers who do not qualify to pursue university education. The results of the study may create awareness to the parents, guardians and the youth and reverse the negative mind-set about TVET as a second-rate option for training but view it as a potential avenue for acquiring relevant life skills for self development and promote actualization of the Sustainable Development goals; Kenya National goals of education and goals of Kenya vision 2030.

### **1.7 Limitations of the study**

In this study the researcher was not be able to control the attitudes of the respondents towards the research which might had effect on the validity of the responses willingly given and collected from each of them during the study. However, the true situation on the ground was ascertained after thorough analysis of the data collected from a pool of respondents. Second, the researcher was not be able to control some other external socio-economic and socio-cultural factors influencing trainees participation rates in the TVET institutions. Problems associated with socio-economic factors can be mitigated by identifying the hard hit trainees and providing them with the requisite resources. Complex socio-cultural problems associated with attitudes, gender discrimination and religious beliefs, and

many others, which influence trainees participation rates in TVET need diverse approaches to minimize them.

### **1.8 Delimitations of the study**

The study was carried out in Makueni County, which has one public technical institute and forty-six County Technical Training Institutes (CTTIs). The study was limited to institutional factors influencing trainees participation in TVET, however other factors influencing participation, such as socio-economic back grounds were not investigated.

### **1.9 Basic assumptions of the study**

In this study the basic assumption were:

- i. That all respondents willingly gave honest, truthful and accurate responses to questionnaires presented to them.
- ii. That there was adequate and available data on enrolments, drop-outs, participation and completions of trainees to make the study acceptable.
- iii. That the sample chosen represented the entire population view on trainees participation rates in TVET.

### **1.10 Definition of terms**

**Competencies** refer to excellent capabilities including knowledge, skills, attitudes and experiences inherent to an instructor.

**Gross Enrolment Ratio** refers to the total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school- age corresponding to the same level of education in a given school year.

**Institutional factors** refer to the instructors, training programmes, financial resources and, teaching and learning facilities utilized in Education and Training institutes to promote quality training.

**Participation** refer to the enrolment, retention and completion of education and training offered at TIVET institutions.

**Public TVET institutions** refers to Technical and Vocational education and training institutions managed and maintained by the government[ Central government or County Government).

**Relevance** refers to the responsiveness of the training courses to the ever changing needs and requirements of the labor market.

### **1.11 Organization of the study**

The study is organized into five chapters. Chapter one dwells on the background to the study, objective of the study, research questions, significance of the study, limitations of the study, delimitations of the study, basic assumption of the study, definitions of the significant terms and organization of the study.

Chapter two deals with related literature reviewed comprising of introduction, overview of Technical, industrial and vocational education and training, tutors competency and trainees participation rates, relevance of training programmes and trainees participation rates, provision of adequate financial resources and trainees participation rates, summary of related literature reviewed, theoretical framework and conceptual framework.

Chapter three comprises of research design; used in the target population, sample size and sampling procedure, research instruments, validity of the instruments, reliability of the instruments, data collection procedures, data analysis techniques and ethical considerations. Chapter four covers the findings, interpretation and discussions from data analysis based on research questions. Chapter five provides the summary of the findings, conclusions, recommendations and suggestion for further research studies.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This section covers the institutional factors influencing trainees participation in TVET institutes in yester-years. The review commences with a brief overview of TVET and discusses four critical factors that influence trainees participation in public technical, vocational education and training institutes. These factors include: competencies of the instructors, relevance of training programs, provision of adequate financial resources and, the availability of teaching and learning facilities. The section ends with a brief presentation of the theoretical framework and the conceptual framework.

#### **2.2 Overview of Trainees participation in TVET**

In order to increase participation rates in VET, the Germany's dual system offers more than three hundred occupation-specific training programs adaptive to the changing needs of the labour market which are defined by the stakeholders under the "Joint Committee of the Federal Institute for Vocational Training". and there is no official eligibility criteria for admissions Solga et al (2014).

A study by Steward (2015), on VET systems in China, reveals the strengths in its system as: lowering expenditures on VET which significantly enabled VET to expand; increased resources have also been poured into handsome modern buildings and equipment and; VET institutions had developed

connections to firms all these geared towards improving access and participation and improving quality of VET in the country. Almeida, Behrman and Robalino (2012), observes that the incorporation of a demand driven TVET into industrialization strategies by the “Asian Tigers” South-Korea, Taiwan and Singapore was a successful experience to be emulated by other countries. Key institutional mechanisms for coordinating economic and training policy ensured that TVET programs were effectively linked to the overall strategy for industrialization.

Kenya requires to invest heavily on these four determinants of quality TVET: Competencies and numbers of instructors; relevance of training programs; provision of adequate resources and provision of up to date modern teaching and learning facilities.

### **2.3 Instructor-trainees ratio and its influence on trainees participation in TVET**

Trainers are a critical component of training requirement and, if the quality of training is sub-standard, resources- time and money are wasted. According to a document compiled by (NICHE Strategy on Technical and Vocational Education and Training, 2010) most developing countries, Kenya included, there are not enough specialized TVET teachers at post-secondary levels.

UNESCO National Education Sector Support Strategy (2010), for republic of Kenya documents that lack of adequately trained TVET tutors is a great challenge in implementing the curriculum at this level. The low numbers of the tutors compounded with little industrial work experience



they possess impacts negatively on the participation rates of trainees as observed by Ferej, Kitainge and Ooko (2012).

#### **2.4 Relevance of training programs and trainees participation.**

Ngerechi (2003), identifies one of the objective of TVET in Kenya as “Provision of a dynamic curriculum responsive to the manpower needs of a dynamic economy”. Proper curriculum planning improves employability and presumes the attainment of skills that correlate with the labor market (Njure, 2013).

UNESCO National Education Sector Support Strategy (UNESS) explicitly documents that one of the challenges facing TVET provision in Kenya is the inflexible TVET curriculum that is unresponsive to changing needs of the labor market, leading to mismatch between skills learned in institutions and skills demanded from the industries.

The TVET Curriculum Development Assessment and Certification Council (CDACC) need to put in place a competency based education and training (CBET) curriculum to make the sub-sector more relevant to market needs. A “demand responsive” training system will attract more trainees participation in TVET in the hope that there are high probabilities for absorption in the job market

#### **2.5 Provision of adequate financial resources and trainees participation**

The National review report on the Education for All (EFA) 2015, notes that the GoK considers investment in TVET as a way to reduce unemployment and poverty and spends about 3.2 per-cent of education and budget on TVET. This low budgetary allocation is a major drawback

to the development of the sub-sector. Oketch (2009), observes that there is a big contradiction between the emphasis for skills development and the limited funding the governments are willing to commit to TVET. Technical training institutions and the systems that support them are expensive with cost including the infrastructure, consumables and human resources. Proper funding of the institutions should be a priority to ensure the requisite resources are there for an effective learning experience.

International cooperation agencies, World Bank, African Development Bank and other donors play an important role in TVET development (Ferej, Kitainge, & Ooko, 2012) However, it is observed that donors financial resources for capital cost remains limited and for short periods. Adequate funding, therefore, should be searched for, from all possible sources including the government, donor support, public-private-partnership to enhance investment and financing of programs and development initiatives. To increase enrolments and completion of training the GoK through The Higher Loans Board (HELB) has been extending loans to TVET trainees and TVET bursary to the less privileged.

## **2.6 Physical Teaching and learning facilities and trainees participation.**

TVET is arguably the most challenging education sub-sector to manage because of changing labor market demands, diverse clientele, the range of programs and high inherent cost (Darvas & Palmer, 2014) .TVET requires extensive resources for teaching and learning, especially in the form of specialist equipment and consumable materials. Lack of teaching and

learning facilities is a major factor leading to ineffective TVET system. Similarly, the Kenya National Education Sector Plan (NESP) ,2014-2018 notes that the TVET sub-sector requires provision of modern equipment since most of the available ones are either obsolete, inadequate and in a state of disrepair. Insufficient training equipments leads to trainees overcrowding during practical lessons, with most of them being passive learners and not having opportunity to practice.

Vital aspects of training are wanting with such areas as workshops, laboratories and even library acquisitions being relegated to the periphery which means that education and training remains theoretical impacting on the quality of training.

## **2.7 Summary of related literature reviewed.**

From the literature reviewed, it is evident that there has been increasing demand for skills development among the populace world wide. Skills development is a major accompaniment in growth and development. The reviewed literature reveal that, instructors form a critical component of training requirements. Instructor-trainees ratio remain to be a deep rooted challenge in the provision of TVET. Major reason why trainees join TVET is to be equipped with skills for employment. However, there are challenges facing TVET in the provision of relevant curriculum that is responsive to the labour market needs. Studies have shown that lack of adequate funding of TVET programmes has led to low levels of training instructors, weak managerial capacity, obsolescence of equipment

or lack of tools and equipment all of which adversely influence trainees participation in TVET institutions.

## **2.8 Theoretical Framework**

This study is based on the Human Capital Theory (HCT) adopted from the works of Theodore Schultz (1961). Investing in education and training of individuals increases their stock of competencies, knowledge, skills and personal attributes towards the world of work, hence, increasing their lifetime earnings. The HCT relates to education and training in TVET in the sense that it is oriented towards productivity of individuals in the world of work. Education and Training has the potential to enhance economic growth, technological progress and productivity just like the other factors of production- land, labor, capital and entrepreneurship.

However, HCT has been criticized on some grounds, for example, the theory postulate that education will not only increase the wages of individuals but also will enhance higher productivity, lower unemployment and increase social mobility. Contrary to this, the Signal theory (Spence, 1973) postulate that education reflect higher productivity without causing it, education is not the source for higher productivity but the signal of higher productivity, thus, there is no correlation between education and productivity. The Human Capital Theory, fails to explain the increasing numbers of the educated- unemployed caused by the diminishing opportunities for employment.

## 2.9 Conceptual framework

**Figure 2.1 Relationship between institutional factors and trainees participation rates**

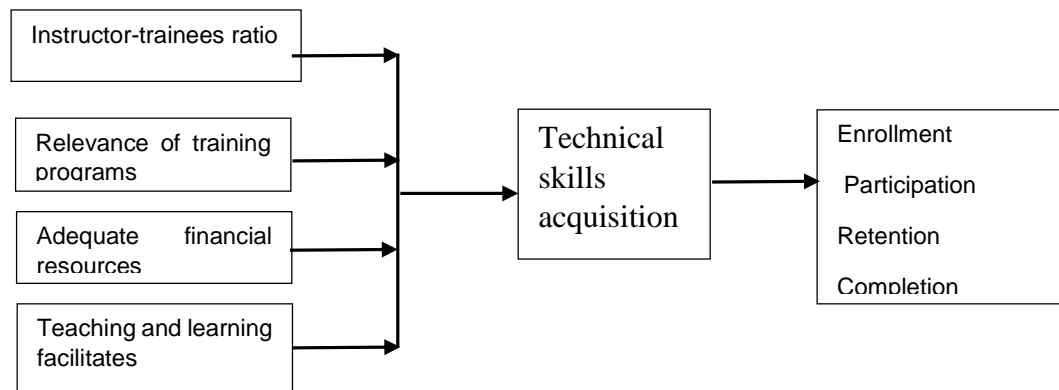


Figure 2.1 shows the relationship between institutional factors and trainees participation rates. In this study the conceptual framework relied on the four independent variables: Instructor-trainees ratios, relevance of training programmes, adequate financial resources and teaching and learning facilities . Adjusting these inputs to their best influenced the change in effective trainees enrolments, participation, retention and completions and acquisition of quality skills.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The chapter presents the methods used in the study. They included research design, target population, sample size and sampling procedures, research instruments, validity of research instruments, reliability of research instruments, data collection procedures and data analysis techniques and ethical considerations

#### **.3.2 Research design**

Kothari (2004), alludes that, research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine the relevance to the research purpose with economy in procedure. Research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data.

In this study descriptive survey research design was used. Kothari (2004), alludes that descriptive research is description of the state of affairs as it exist at present. Descriptive research is applicable in this study in that the institutional factors influencing trainees participation in TVET in Makueni were collected and analyzed as they exist presently.

### **3.3 Target population**

Mugenda (2008), explains that population refers to an entire group of individuals, events or objects having mutual observable characteristics, from where a sample is drawn for the study. On the other hand, a target population refers to the specific population about which information is desired and results generalized (Kothari, 2004). In this study the target population comprised of 46 County Technical Training Institutes.

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

Sample size refers to the number of items to be selected from the target population to constitute a sample, (Kothari, 2004). The purpose of sampling is to get an understanding concerning the characteristic of the sample. A sample size of at least 30% is a good representation of the target population since it allows for reliable levels of accuracy for testing significance of differences between estimates. On the other hand, sampling procedure is a process of choosing a sub-group from a population to participate in the study. The sub-group is selected from the sampling frame as set out in (Mugenda and Mugenda, 2003).

To determine the number of respondents, quota sampling was employed. This is a type of purposive sampling that ensures that certain groups are adequately represented in the study through assignment of a quota fixed for each sub-group, (Sekaran, 2006). Quota sampling is particularly useful in creating a sample that is as representative as possible of the population being studied where stratified random sample fails.

**Table 3.1 Sample frame**

<b>Sub-County</b>	<b>No. of TVETS</b>	<b>Quota Sample</b>	<b>Percentage</b>
Makueni	13	4	30.76
Kibwezi West	8	3	37.5
Kibwezi East	3	1	33.33
Kaiti	8	3	37.5
Kilome	3	1	33.33
Mbooni	11	4	36.36
<b>Total</b>	<b>46</b>	<b>16</b>	<b>34.78</b>

Table 3.1 shows the number of county technical training institutes in the county and their distribution in the six constituencies or sub-counties within the county. There were a total of forty six registered technical institutes at the time of this study.

**Table 3.2 Sample size**

<b>Category of respondent</b>	<b>Population</b>	<b>Sample</b>	<b>Percentage</b>
Managers	46	16	34.78
Dean of studies	46	16	34.78
Last year Trainees	1250	375	30.00
<b>Total</b>	<b>1342</b>	<b>407</b>	<b>30.26</b>

Table 3.2 shows the sample size selected from 46 county technical training institutes. In this study 16 managers of the technical institutes, 16 dean of



studies of the technical institutes and 375 last year trainees were selected as respondents.

In this study Managers were selected as respondents because of their central role they play of institution management. The Dean of studies or the registers were selected due to their role they act in coordination of curriculum, enrolling students and supervision of institutional matters promoting education and training on behalf of the managers. The finalist student were selected because they were versed with the institutional programmes.

### **3.5 Research instrument.**

Since the research design to be employed was descriptive, primary data was collected using questionnaires and observation forms. Secondary data collection was employed using document analysis and observation checklist.

#### **3.5.1 Questionnaires**

#### **3.5.2 Questionnaires for Managers**

The questionnaire for the Principals had five sections: Section one obtained background information of the principals. The other four sections collected information pertaining to institutional factors influencing trainees participation rates in TVETS institution in the County in relation to Tutors adequacy, relevance of training programmes, provision of adequate financial resources and availability of teaching and learning facilities in their institutions.

### **3.5.3 Questionnaires for dean of studies**

Questionnaires for dean of studies comprised of five sections, similar to those of the Principals.

### **3.5.4 Questionnaire for trainees**

Questionnaires for final year trainees comprised five sections similar to those of the Principals and Dean of studies.

### **3.5.5 Document analysis**

Document analysis was done to collect information on number of tutors and their levels of qualification, trainees enrolments, retention, drop-out and completion and the teaching and learning resources sourced by the managers of institutions. This information assisted the researcher to verify information captured in questionnaires.

### **3.5.6 Direct observation check lists**

To ascertain the state of the teaching and learning facilities direct check lists were used. This information assisted the researcher to ascertain the information captured through questionnaire.

## **3.6 Validity of research instruments**

Sound measurements must meet the test of validity. Validity refers to the extent to which a test measures what we actually wish to measure, (Kothari, 2004). Validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study, (Mugenda and Mugenda, 2003). In this study, validity was arrived at after a pilot study and improving on the instruments.

### 3.7 Reliability of instruments.

Kothari 2004), portend that a measuring instrument is reliable if it provides consistent results. Reliability is a measure of the degree to which a research yields consistent results or data after repeated trials (Mugenda and Mugenda, 2003). In this study, reliability was ascertained after piloting in at least two CTIIs. Test-retest reliability method was employed to ascertain the coefficient of internal consistency of the research instruments. The Pearson's Product Moment Correlation Coefficient will be used to correlate the scores from the pilot study.

$$r = \frac{n(\sum xy - \sum x \sum y)}{\sqrt{\{n\sum x^2 - (\sum x)^2\} \{n\sum y^2 - (\sum y)^2\}}}$$

Where n = number of pairs of scores,

$\sum xy$  = sum of the products of paired scores,

$\sum x$  = sum of scores,

$\sum y$  = sum of y scores,

$\sum x^2$  = sum of squared of x scores,

$\sum y^2$  = sum of squared y scores.

### 3.8 Data collection procedures.

To be able to collect data from the respondents without stress, the researcher sought for a permit from the National Commission for Science and Technology (NACOSTI) a body charged with the responsibility of issuing permits for research in Kenya. The researcher proceeded to seek further clearance from the Director- Department of

Education, Makueni County. The researcher notified the managers of the selected institutions on the purpose of the research and booked appointments.

### **3.9 Data analysis and presentation.**

Data analysis and presentation involves examining what has been collected and making meaningful deductions and inferences (Kothari, 2004). After data collection, questionnaires were coded, and then edited to detect errors and omission to improve accuracy and precision. Classification was done to reduce raw data into homogeneous groups to get meaningful relationships. In this study, Statistical Package for Social Science (SPSS) computer software version 20 was used to analyze quantitative data collected. Correlation and multiple regression analysis was used. As (Mugenda, 2008) explains, correlation analysis establishes the nature of the existing relationship between the independent and dependent variables, while multiple regression analysis is used to determine statistical significance and the influence that the independent variables have on dependent variable. Analyzed data was represented using means and standard deviations and pie charts.

### **3.10 Ethical consideration.**

In order to address ethical considerations , research participants were accorded respect and dignity and their full consent to participate was obtained from them. Findings of the research will be shared with the technical, vocational education and training managers at the county to improve on the current status.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

#### **4.1 Introduction**

The chapter discusses the findings of the study. The purpose of the study was to investigate the institutional factors that influences trainees participation rates in public technical, vocational education and training institutes in Makueni County. The factors investigated included: Instructors-trainees ratio, relevance of training programmes, adequate financial reources to cater for recurrent and capital expenditure and availability of teaching and learning resources.

The section also presents the interpretation of the results in relation to institutional factors influencing trainees participation rates in public technical, vocational education and training institutes

#### **4.2 Questionnaire response rate**

The study sampled 16 Principals of CTTLs, 16 Dean of studies of CTTLs and 377 last year students. The respondent were drawn from sixteen institutes which included: Ng'etha, Makueni, Kathonzweni and Mavindini in Makueni constituency or subcounty;Kisingo, Masumba and Spring-Hill in Kibwezi West subcounty;Ukia,Isovyo and AIC Ukaatuni in Kaiti subcounty;Nduluku, St. Patrick Kako, Mutanda and AIC Tulimani in Mbooni subcounty; Ngwata in Kibwezi East subcounty and Enzai in Kilome subcounty representing a quota from the six sub counties of Makueni county. Response rate is as shown in Table 4.1

**Table 4.1 Response to questionnaire**

Category of Respondent	Questionnaires issued	Questionnaire returned	Percentage Return rate
Managers	16	16	100
Deans of studies	16	16	100
Trainees	377	375	99.45
Total	409	407	99.51

The data in Table 4.1 indicates the average response rate was 99.51 percent which is higher than 70% recommended by Kothari (2004). All the 16 managers of the sampled institutions filled and returned their questionnaire which represented 100%. Similarly, all the deans of studies recorded 100% response rate. Two trainees returned their questionnaires without full responses on them

#### 4.2.1 Demographic information of respondents.

**Table 4.2 Distribution of managers by gender**

Gender	Frequency	Percentage
Females	9	56.25
Males	7	43.75
Total	16	100

**Table 4.3 Distribution of managers by professional qualification**

Qualification	Frequency	Percentage
Degree	1	6.25
Higher Diploma	1	6.25
Diploma	14	87.5
Total	16	100

This implies that with these qualification, the managers are well placed to train artisan courses and certificate courses improving the standards of training

#### **4.2.2 Distribution of Deans of studies by gender**

The demographic information indicate the attributes of the instructors based on their academic qualification and gender.

Out of the sixteen dean of studies 12 were males and 4 were females. This was replicated too in the numbers of instructors in various CTTI,s. The numbers of males instructors superseded those of female instructors. The disparities in the gender of instructors determined too the number of trades offered in the institutions and the subsequent participation rates of females and males trainees respectively.

Out of the sixteen respondents in this category of Dean of students, 13 of them had attained academic qualification of Diploma in Technical Education while 3 of them had attained certificate level. This implied that they were better placed to train artisan courses and also certificate courses.

**Table 4.4 Distribution of trainees by gender**

Gender	Frequency	Percentage
Males	250	66.67
Females	125	33.33
Total	375	100

Table 4.4 shows that majority of the trainees who participated in the study were of male gender. Gender Parity Index was 0.67:1 indicating a

disparity in favor of the males. This can be attributed to the fact that many females opted not to take training in trades like motor vehicle mechanics, building technology, electrical installation and welding and metal fabrications which were dominated more by male trainees.

**Table 4.5 Distribution of trainees by age in years**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
15-19	99	26.4
20-24	238	63.47
25-29	38	10.13
Total	375	100

Table 4.5 shows the age distribution of trainees in CTTL. Majority of the trainees representing 63.47% were aged between 20-24 years. This can be interpreted to mean that majority of the had either completed primary level education and or secondary education since most of the graduates of these levels are aged between fifteen years and twenty two years.

#### **4.3 Influence of Instructor-trainees ratios on participation rates in TVET.**

The first objective of the study sought to find how the numbers and qualification of instructors in various skills attracted trainees participation in TVET. Sessional Paper No. 14 of 2012 on Reforming Education and Training Sectors in Kenya, notes that one challenge of TVET provision is insufficient numbers of trainers with pedagogical competency. The availability, right numbers and levels of qualification of instructors form a critical component in the training process



**Figure 4.1 Managers response on the Number of trained and untrained instructors**

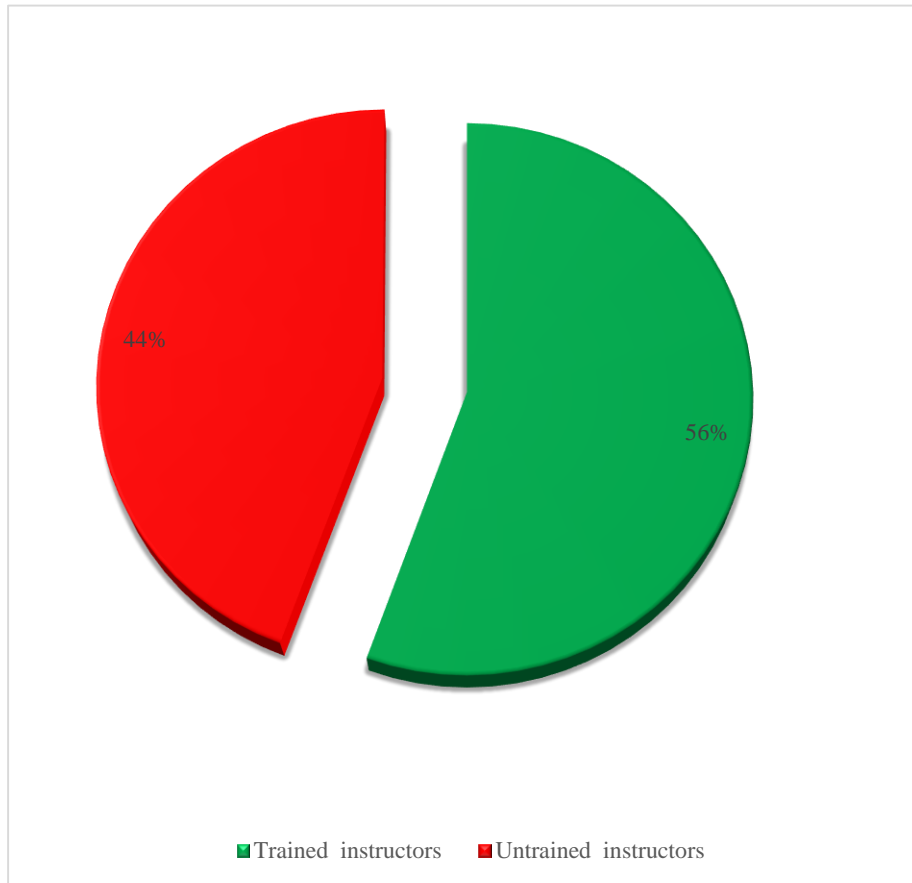


Figure 4.1 shows the numbers of instructors. From the data it can be deduced that 55.56% of the instructors had been trained as instructors in Technical Education irrespective of their qualification, while 44.44% of the instructors had not attained training but had the experience in some trades.

**Figure 4.2 Managers response on adequacy of instructors in Makeni CTTI**

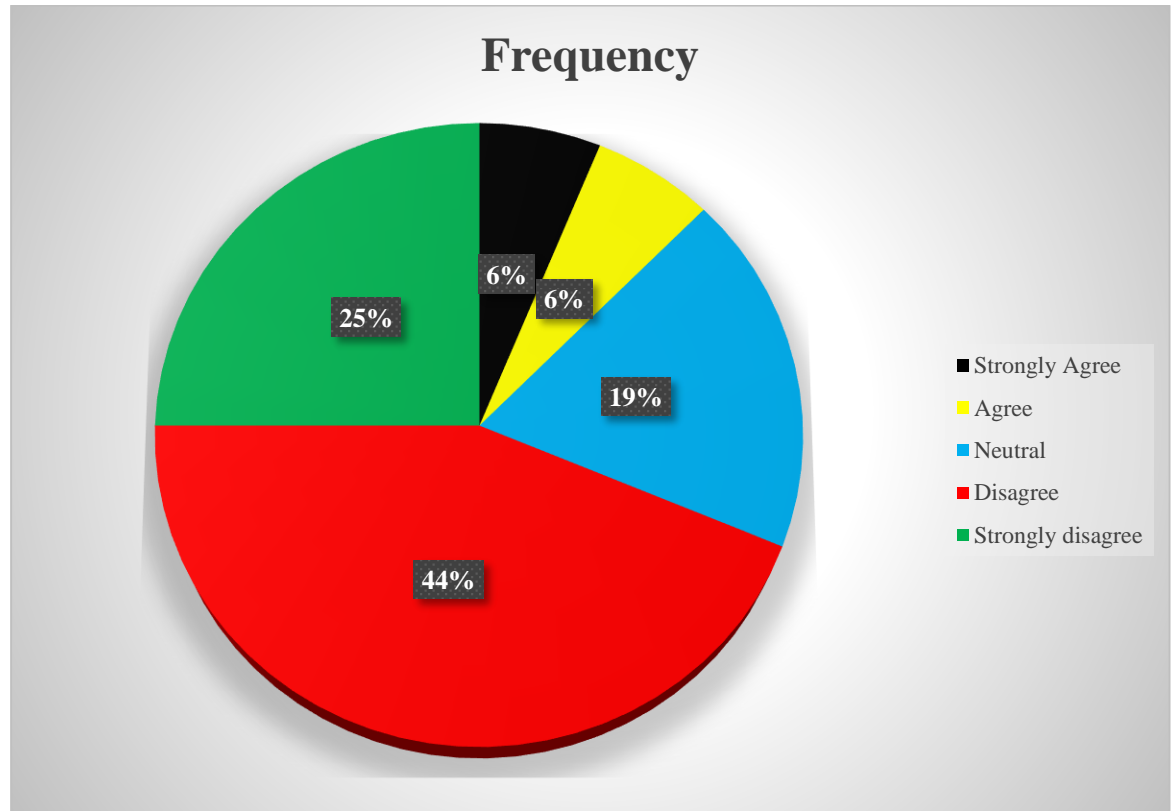


Figure 4.4 indicates over 69% of the managers strongly disagreed and disagreed respectively that there were adequate instructors in county technical training institutes. Majority of the managers concurred that the instructor- trainee ratio was too large which hampered quality training. Many institutions were forced to offer narrow trades due to inadequacy of instructors leading to low participation rates in some trades. 6% of the managers strongly agree and 6% agreed that the instructor- trainees ratios in the institutions were adequate. These represented those trades that had adequate instructors in some institutions. Few well established institutions had enough instructors in some trades

**Table 4.6 Students’ response on adequacy of instructors in Makueni**

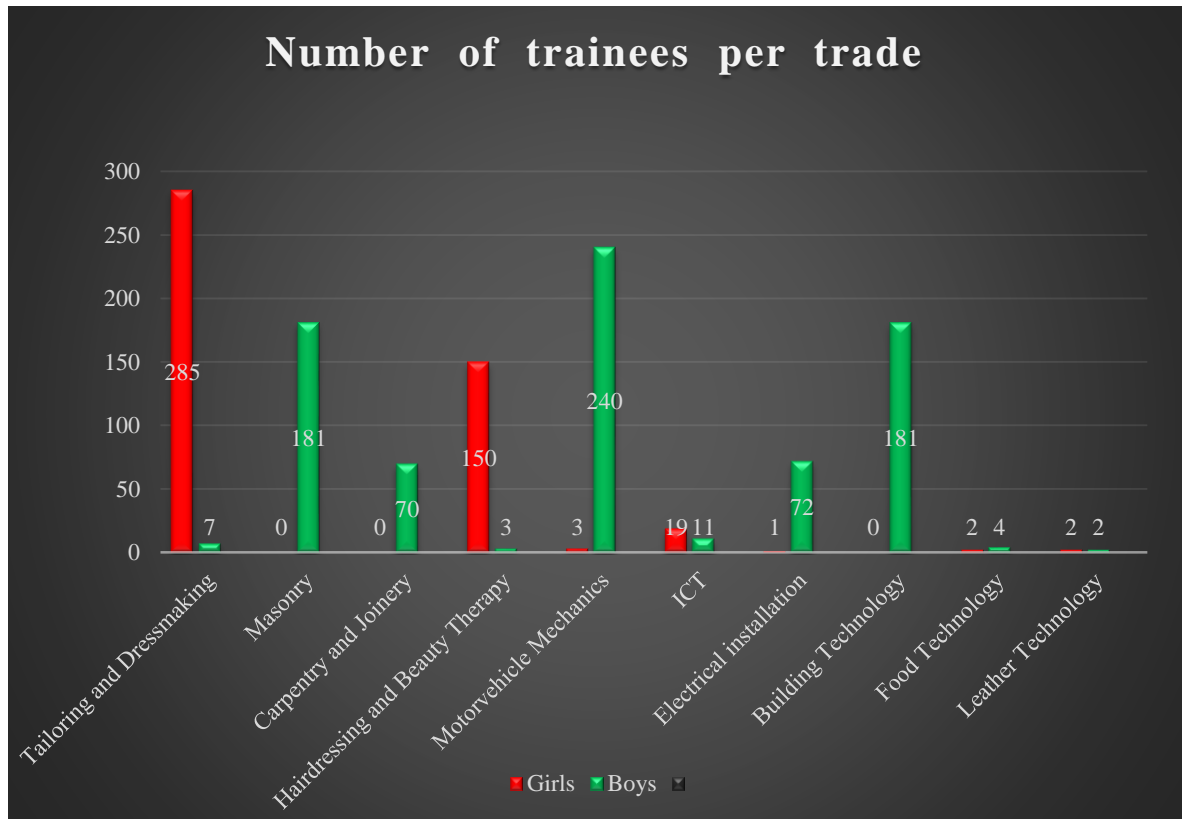
<b>CTTI</b>		
Adequacy of Instructors	Frequency	Percentage
Strongly Agree	7	1.87
Agree	128	34.13
Neutral	47	12.53
Disagree	164	44.09
Extremely Disagree	29	7.73
Total	375	100

The results in Table 4.6 show the trainees response on adequacy of instructors varied. One percent of the trainees strongly agreed and thirty-four percent of the respondents agreed respectively that they had adequate instructors, this is due the fact that few institutions had adequate instructors in some trade hence attracting more trainees in those trades. Trades in Tailoring and dress making, Masonry and Metal fabrication attracted more trainees in the fifteen out of sixteen institutes sampled.

Forty-four percent and seven percent of the respondents indicated that the instructor- trainees ratios was unfavorable. Trades in Carpentry and Joinery, electrical installations, ICT had low numbers of trainees due to lack of trainers. Enrolments in motor vehicle mechanics were high but the number of instructors was insufficient, thus compromising the quality of training. The right numbers and qualification of instructors is an essential component of TVET. Inadequate numbers of and low qualifications of instructors can compromise quality and standards of training.

**4.4 Relevance of training programmes and their influence on trainees participation rates.**

**Figure 4.3 Number of trainees per trade in Makueni CTTI**



Source: Directorate of Vocational Training, Makueni County, 2018

The Figure 4.3 presents a summary of number of trainees per trade. The official enrolments of second year trainees as provided by the Director of Vocational for the year 2017 for the institutions sampled was 1436: Girls were 462 and boys 974. However, data as observed at the training institutes had a total of 1342 trainees, a difference of 94 trainees, translating to a wastage rate of 6.55%. The wastage rates might have been caused by dropout rates or natural attrition.

Institutions which offered diversified trades had high numbers of trainees participation. Institutions like Ngwata CTTI, Nduluku CTTI, Enzai CTTI and Kathonzweini CTTI which offered eight or more trades attracted many participants. These institutions recorded enrolments of more than two hundred and fifty trainees.

Institutions like Ukia, ABC Ukaatuni, Spring-Hill, St. Patrick Kako and Masumba which offered less than five trades had trainees participation rates of less than one hundred.

**Table 4.7 Managers’ response on the relevance of the training programmes offered in Makueni CTTI**

	Equips trainees with lifelong skills	Percentage	Attracts more trainees	Percentage	Meets the labour market needs	Percentage
Strongly Agree	4	25	3	18.75	4	25
Agree	10	62.5	10	62.5	8	50
Neutral	1	6.25	2	12.5	1	6.25
Disagree	1	6.25	0	0	2	12.5
Strongly Disagree	0	0	1	6.25	1	6.25

The table 4.7 shows the response of the managers on the relevance of the training programmes. 25% of the and 65.5% of the managers strongly agreed and agreed respectively that the programmes offered at the institutions equipped the trainees with lifelong skills. 18.75% and 62.5% of the managers strongly agreed and agreed respectively that the programmes offered at CTTI attracted trainees. Over 75% of the managers of the managers concurred that the trades offered met the labour market demands.

**Table 4.8 Deans' of students response on the relevance of the training programmes offered in Makueni CTIIs**

	Equips trainees with lifelong skills	Percentage	Attracts more trainees	Percentage	Meets labour market needs	Percentage
Strongly Agree	3	18.75	1	6.25	1	6.25
Agree	13	81.25	10	62.5	14	87.5
Neutral	0	0	3	18.75	1	6.25
Disagree	0	0	2	12.5	0	0
Strongly Disagree	0	0	0	0	0	0

The Table 4.8 shows the response of the Deans of studies on the relevance of programmes offered at their institutions. Over 87% concurred that the courses offered equipped trainees with lifelong skills and that the courses were attractive to the trainees. 75% of the Deans were in agreement that the courses offered met the labour market needs and that the trainees will be productive in their future.

To increase the participation rates and the relevance of the programmes, the Dean of studies at Kathonzweni alluded to the researcher that they too had initiated short term courses in Motorcycle riding and the trainees were issued with valid licenses upon successful completion of their training.

**Table 4.9 Trainees response on the relevance of the training programmes offered in Makueni CTTLs**

	Equips trainees with lifelong skills	Percentage	Attracts more trainees	Percentage	Meets labour market needs	Percentage
Strongly agree	193	51.74	160	42.90	172	46.11
Agree	123	32.98	138	37.00	130	34.85
Neutral	18	4.83	60	16.09	43	11.53
Disagree	29	7.77	11	2.95	22	5.90
Strongly disagree	10	2.68	4	1.06	6	1.61

Table 4.9 shows the findings on the trainees response on the relevance of the training programmes they enrolled into. Over 80% of the respondents were in total agreement that the courses they enrolled for will equip them with lifelong skills and that they met the labour market demands..

#### **4.5 Influence of financial resources and trainees participation rates.**

The research sought to find out the extent to which availability of financial resources influenced trainees participation rates in CTTLs. Ample financial resources to cater for recurrent expenditure and capital expenditure greatly determine the growth and development of any institution.

Managers of the CTTLs who were the chief executive officers at the institution and charged with the responsibility to manage cash inflows, were to respond to four items on the questionnaire concerning recurrent and capital expenditures. The response of the managers was tabulated below in the table 4.10

**Table 4.10 Managers response on the provision of financial resources**

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total frequency
There is adequate provision of instructional material	0	3	5	5	3	16
TVET instructors are fairly remunerated	0	3	3	5	5	16
There is refined scholarship for TVET instructors	1	1	3	8	3	16
There is proper funding of TVET facilities	1	2	3	4	6	16

Table 4.10 shows the analysis of the responses on item one. 50% of the managers either strongly disagreed or disagreed that there was ample provision of instructional materials. In my interpretation, these represent the institutions which had very low enrolments and likely offered narrow trades.

Three out of the sixteen respondents, representing 18.75% , agreed there was adequate provision of the instructional resources. In my interpretation, these represented the institutions which had high enrolments and they offered wide range of programmes.

From the Table 4.10 , over 50% of the respondents on item two, were of the opinion that instructors were poorly remunerated. In my interpretation, the disjoint in remuneration meant that few trained and qualified technical education graduates were willing to be employed as instructors in the CTTI,s and those already in the field opted to quit for other ventures.



This occasioned the low numbers of trained instructors in the county, negatively impacting on the participation rates and compromising the quality of training.

68.75% of the respondents on item three alluded that, there was no refined scholarship for the TVET instructors. In my interpretation, this was prompted by inadequacy of funds. With proper funding, the instructors can be attached to industries and gain new knowledge which can be transferred to the trainees, thus improving their employability, hence attracting more trainees to participate in TVET.

Over 50% of the respondents on item four, were of the opinion that there was inadequate funding of TVET facilities. In my interpretation, these represented those institution which the administrators at the county level had the opinion that they had received some funding at some point but were still stagnating at low levels without attracting more trainees. Three of the managers were neutral on this item. These in my interpretation represented those institutions that received moderate financing and had some facilities like classrooms, workshops, tools and equipment, even if they were obsolete.

Two managers were in agreement and one manager strongly agreed that they received adequate financial to fund TVET facilities. In my interpretation, these represented those institution which had received funding from the County Government to develop some boarding facilities for trainees and also expand the curriculum offered at these institutions.

**Table 4.11 Deans’ of studies response on the provision of financial resources**

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>	<b>Total</b>
TVET instructors are fairly remunerated	0	0	3	6	7	16
There is a refined scholarship for TVET instructors	0	0	0	8	8	16
There is proper funding of TVET facilities	0	3	6	7	0	16

Table 4.11 represent the Deans’ response on three items on finance provision. Thirteen of the respondents, representing 81.25% of the population, felt that the instructors were not remunerated fairly. In my interpretation, this result accounted to the low numbers of qualified trainers in the CTTI

All the respondents concurred that there was no refined scholarship for TVET instructors to upgrade their skills at industry level or at higher institutes of learning. In my interpretation this was due to inadequacy of financial resources leading to mass exodus of the trained instructors to other fields outside technical training.

The findings are in agreement with the GoK (2015) National Review Report on the Education for All which noted low budgetary allocation on TVET.

#### **4.6 Availability and adequacy of teaching and learning facilities**

Teaching and learning facilities constitute an important component of the training process. Physical facilities including: classrooms, staff offices, workshops, tools and equipment, furniture, electricity supply, water supply, library, computers, computer laboratories and internet connectivity greatly improve the efficacy of training.

Other facilities such as dormitories for accommodation can attract trainees whose residential areas are far distance to the institutions. Conducive environments for exercising individual talents in co-curricula such as sports and entertainment are also vital components of facilities. The researcher sought to establish how the availability and adequacy of the facilities influence participation rates in CTTLs.

**Table 4.12 Managers and Deans of studies response on availability and adequacy of teaching and learning facilities**

	Frequency	Percentage
Extremely satisfied	0	0
Satisfied	8	25
Neutral	12	37.5
Dissatisfied	12	37.5
Extremely dissatisfied	0	0
Total	32	100

Table 4.12 show the findings of the response of the managers and deans of studies on the status of the adequacy of teaching and learning facilities. 25% of the respondents were satisfied that there were adequate teaching and learning facilities in either their institutions or the trades they offered . In my interpretation, these responses reflected those institutions which had adequate classrooms, workshops and were connected with electricity;

and they had adequate instructors in the trades offered, leading to an increased trainees participation

37.5% of the respondents were neutral. My interpretation is that, these represented the responses of administrators whose institutions had some moderate levels of teaching and learning resources even if they were dilapidated.

The other 37.5% of the respondents who were dissatisfied, represented either trades in which there was little or no tools and equipment or the institutions had not fully developed and were not connected with electricity.

**Figure 4.3 Trainees response on the availability and adequacy of teaching and learning facilities**

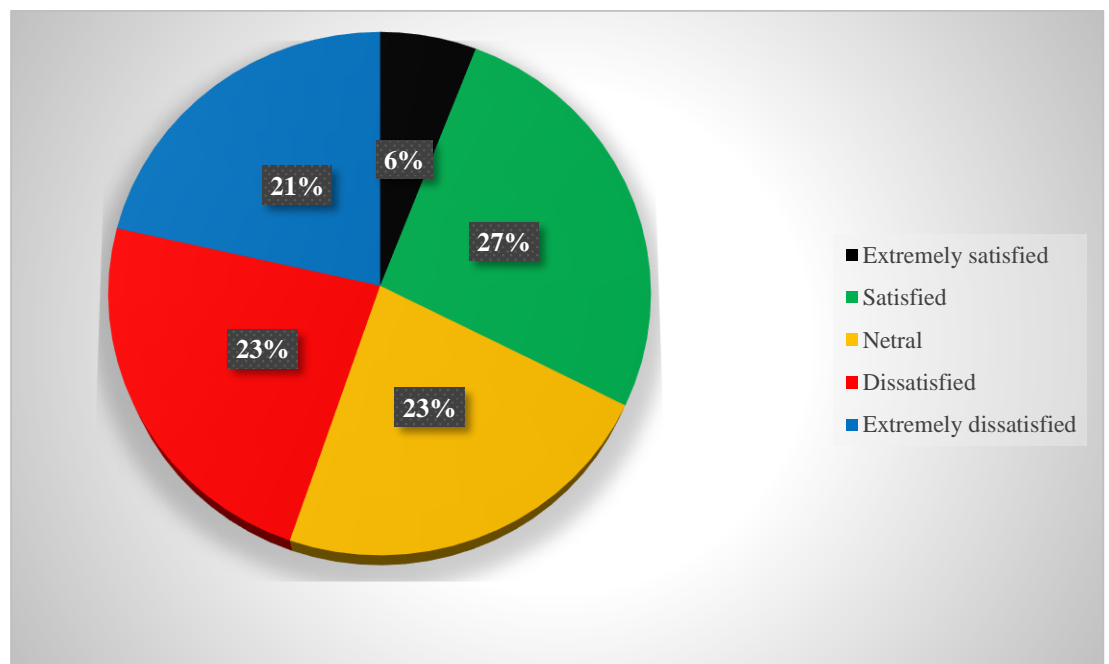


Figure 4.3 indicates over 30% of the trainees were either extremely satisfied or satisfied with the status of adequacy of teaching and learning resources.. 44% of the trainees respondent felt that the CTTI,s lacked the necessary facilities which compromised quality training. The findings reflect the view held in Sessional paper No.14 of 2012.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

The purpose of this study was to find out institutional factors influencing trainees participation rates in public technical, vocational education and training institutes in Makueni County with regard to County Technical Training Institutes. The section presents a summary of the chief findings of the study and also conclusions made from the findings based on the objectives of the study. At the end of the section, the researcher gives recommendations on areas that need further research.

#### **5.2 Summary of the study**

The study investigated institutional factors influencing trainees participation rates in public technical, vocational education and training in Makueni County, with reference to the County Technical Training Institutes. The study sought to achieve this by assessing the extent to which the instructor-trainees ratio influenced trainees participation rates in TVET; determining the extent to which the relevance of training programmes influenced trainees participation rates in TVET; establishing the extent to which financial resources to institution influenced trainees participation rates and to assess the extent to which the availability of teaching and learning facilities influenced participation rates in TVET.

The study adopted descriptive survey research and targeted 16 registered County Technical Training Institutes in Makueni County. The study

sampled 16 managers, 16 Deans of studies and 375 final year trainees. Data was primarily collected through questionnaires and observation checklist. Quantitative and qualitative techniques were employed in data analysis.

The following are the primary findings of the study presented in the order of the study objectives: On the first research question of the study, as to what extent does the instructor- trainees ratio influence trainees participation rates in public TVET in Makueni County, the researcher concluded that, over 69% of the managers and over 75% of the Dean of studies were in agreement that; the more the number of qualified instructors per trade the more the participation rates of the trainees. The gender of the instructors was also a determinant factor on the enrolments and participation in diverse trades.

On the second question as to what extent does the relevance of training programmes influence trainees participation rates in TVET in Makueni County, the researcher concluded that over 75% of all the respondents were in agreement that the trades that were offered were relevant. The trades that easily created pathways for self- employment or employment by any other institutions attracted majority of the trainees. Programmes which needed low capital to initiate self- employment and had high labour market demand posted high participation rates. However, it was noted that there were programmes which comprehensively attracted more females trainees than the males trainees and vice-versa. The masculine programmes,

like masonry and motorvehicle mechanic attracted more males than females while programmes like tailoring and dressmaking attracted more females. On the third question as to what extent does the availability of financial resources to institutions influence trainees participation rates in TVET in Makueni County, the researcher concluded that ample financial resources to cater for recurrent expenditure and capital expenditure immensely influenced the participation rates of trainees. Over 50% of the managers concurred that inadequate provision of financial resource hampered investment in physical facilities such as workshops, dormitories, electricity installation, tools and equipment and laboratories and human capital or instructors which had an influence on trainees participation rates. Over 75% of the managers and dean of studies concurred that the instructors remuneration was not commensurate to the service they rendered leading to brain drain to other sectors.

On the fourth question as to what extent does the availability of teaching and learning facilities influence trainees participation rates in TVET in Makueni County, over 70% of the managers and Dean of studies concurred that Vocational Training imparts more of psychomotor skills and inadequate provision of the resources hampers quality training, subsequently influencing participation rates. 80% percent of the trainees concurred that the institutions lacked modern facilities, however, they opted to enroll in trades in which there were some facilities irrespective of their condition.

### **5.3 Conclusions**

The following conclusions were derived from the findings of the study:

The study established that the number of qualified instructors was extremely inadequate forcing the managers to employ untrained instructors to fill the gaps. This had an implication on the quality of the vocational education and training.

The researcher established that the range of training programmes were nine in total and they were replicated in almost all the institutes. None of the institute offered skills development in agriculture which is a core sector of Kenya's economy.

The institutions received very little funding from the County Government which hampered development of requisite facilities for TVET. Majority of the institutions lacked workshops for practical training and that the tools and equipment available was inadequate and obsolete. Remuneration of the instructors was not commensurate to their service delivery prompting them to seek alternatives outside TVET training.

### **5.4 Recommendations**

From the conclusions of the findings of the study, the following recommendations were made:

- ✓ The county governments which are constitutionally mandated to manage vocational training, should employ more qualified instructors and remunerate them commensurate to their services to keep them in the profession.



- ✓ The county governments should increase the requisite teaching and learning facilities and improve the conditions of the physical facilities for TVET in the counties.
- ✓ The county governments should allocate more funds for scholarship of instructors to pursue further training in institutions of higher learning locally or abroad in the first developing nations referred to as the ‘Asian Tigers’ or in industries.
- ✓ Trainees who excel in their trades should be recruited by the (Ministry of Education and Ministry of Higher Education, 2012) county governments or placed for some employment in industries to motivate other trainees.
- ✓ The curriculum planners need to diversify the number of courses offered at the vocational education institutes to include trades in Agriculture, Environmental Management and courses related to basic health care.

### **5.5 Suggestion for further studies**

The study concentrated on institutional factors that influence trainees participation rates in public TVET in Makueni County. The study can be repeated in other counties. Further studies can be done on socio-economic factors that influence trainees participation rates in TVET.

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**APPENICES**

**APPENDIX I:**

**INTRODUCTION LETTER**

Daniel Mutuku Wausi,  
The University of Nairobi,  
Department of Educational  
Administration and Planning,  
P.O. BOX 30197-00100,  
Nairobi, Kenya.  
Date.....

The Principal,  
.....County Technical Training Institute,

Dear Sir/ Madam,

**RE: REQUEST PERMISSION TO CARRY OUT RESEARCH IN YOUR INSTITUTION.**

I am a student at the University of Nairobi pursuing a Master Degree in Educational Planning. I am undertaking a research on “ **Institutional Factors Influencing Trainees Participation Rates in Public Technical, Vocational Education and Training Institutes in Makueni County**”.

The information availed to me will be used for academic purpose and respondents responses will be treated with confidentiality.

Thank you.

Yours’ Sincerely,

Daniel Mutuku Wausi.

**APPENDIX II:**  
**PRINCIPALS' QUESTIONNAIRE**

**Introduction.**

The questionnaire has been designed to identify “ **Institutional factors influencing trainees participation rates in public TVET institutions in Makueni County**” You are humbly requested to fill the questionnaire as honestly and accurate as possible. Responses to these questions will be treated as **CONFIDENTIAL**. Kindly **DO NOT** indicate your name.

Please tick [] where appropriate or fill in the required information on the spaces provided.

**SECTION I: BACKGROUND INFORMATION**

1. Indicate your gender: Male [] Female []
2. Indicate age [] in years:  
20-25years [] 26-35 years [] 36-45 years [] 46-50 years [] over 50 years []
3. What is your highest level of education:  
Master [] Degree [] Diploma []
4. What is your work experience as a manager in the institution:  
Below 1 year [] 1-3years [] 4-7 years [] 8years and over []

**SECTION II: INSTRUCTOR-TRAINEES RATIO AND  
TRAINEES PARTICIPATION RATES.**

5. How many instructors do you have in your institution.....
6. Kindly state the number of:  
(i) Trained instructors..... (ii) Untrained instructors.....

7. In your opinion is the ratio of instructor- trainees adequate:

Strongly agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ]

**SECTION III: RELEVANCE OF TRAINING PROGRAMMES AND TRAINEES PARTICIPATION RATES.**

Rate the following statements as they relate to the relevance of TVET curriculum in your institution. Please tick [√] the most appropriate:

SA (Strongly Agree), A (Agree), N(Neutral), D (Disagree),SD (Strongly Disagree)

	Relevance of curriculum offered	SA	A	N	D	SD
8	Equips trainees with lifelong skills					
9	Attracts more trainees of TVET					
10	Meets the labour market needs					

**SECTION IV: PROVISION OF ADEQUATE FINANCIAL RESOURCES AND TRAINEES PARTICIPATION RATES.**

Rate the following statements as they relate to availability of financial resources. Tick[√] the most appropriate.

SA (Strongly Agree), A (Agree), N (Neutral), D (Disagree), SD(Strongly Disagree)

	Statement	SA	A	N	D	SD
11	There is adequate provision of instructional materials.					
12	The TVET instructors are fairly remunerated.					
13	There is a refined scholarship scheme for TVET instructors					
14	There is proper funding of TVET facilities.					

**SECTION V: AVAILABILITY OF TEACHING AND LEARNING FACILITIES AND TRAINEES PARTICIPATION RATES.**

15. Kindly rate the satisfaction of the facilities in your institution.

Extremely Satisfied [ ] Satisfied [ ] Neutral [ ] Dissatisfied [ ] Extremely  
Dissatisfied [ ]

Thank you.



### APPENDIX III:

#### QUESTIONNAIRE FOR THE DEAN OF STUDIES

##### Introduction

The questionnaire has been designed to gather information related to **“Institutional factors influencing trainees participation rates in public TVET institutions in Makueni County.”** You are humbly requested to fill the questionnaire as honestly as possible by putting a tick or otherwise.

##### SECTION I: BACKGROUND INFORMATION

1. What is your gender?

Male [ ] Female [ ]

2. What is your age bracket?

20-25 years [ ] 26-30 years [ ] 31-45 years [ ] 45-50 years [ ]

50 year and above [ ]

3. How many years have you been training?

1-5 years [ ] 6-10 years [ ] 10 years and above [ ]

4. Kindly state your highest level of qualification?

Certificate [ ] Diploma [ ] Higher Diploma [ ] Degree [ ] Master  
[ ]

Other (specify)

.....

**SECTION II: INSTRUCTOR-TRAINEES RATIO AND TRAINEES PARTICIPATION RATES**

5. How many instructors do you have in your institution.....

6. Kindly state the number of:

(i) Trained instructors .....

(ii) Untrained instructors .....

7. In your opinion is the ratio of instructor-trainees adequate?

Strongly agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ]

**SECTION III: RELEVANCE OF TRAINING PROGRAMMES AND TRAINEES PARTICIPATION RATES.**

8. Kindly state the number of courses offered at your institution .....

Rate the following as they relate to the relevance of TVET curriculum offered in your institution. Tick [√] the most appropriate. Strongly Agree (SA), Agree (A), N (Neutral), Disagree (D), Strongly Disagree (SD).

	The curriculum offered	SA	A	N	D	SD
9	Equips the trainees with lifelong technical skills.					
10	Attracts more trainees to TVET institution					
11	Meets the needs of the labour market					

**SECTION IV: PROVISION OF ADEQUATE FINANCIAL RESOURCES AND TRAINEES PARTICIPATION RATES**

Rate the following statements as they relate to the availability of financial resources in your institution. Tick [√] the most appropriate.

SA (Strongly Agrees), A (Agree), N (Neutral), D (Disagree), SD (Strongly Disagree)

	Statement	SA	A	N	D	SD
12	The TVET instructors are fairly remunerated					
13	There is a refined scholarship scheme for TVET instructors					
14	There is proper funding of TVET facilities					

**SECTION V: TEACHING AND LEARNING FACILITIES AND TRAINEE PARTICIPATION RATES.**

Kindly rate the satisfaction of the facilities in your institution:

Extremely Satisfied [ ] Satisfied [ ] Neutral [ ] Dissatisfied [ ]

Extremely Dissatisfied [ ]

Thank you.

**APPENDIX IV**  
**QUESTIONNAIRES FOR TRAINEES**

**Introduction**

The purpose of this research is to find out “ **Institutional factors influencing trainees participation rates in public TVET in Makueni County.**” You are humbly requested to respond to these questions honestly and accurately.

All the information received through this questionnaire will remain confidential.

Please tick [] where appropriate or fill in the required information on the spaces provided.

**SECTION I: BACKGROUND INFORMATION**

1. Indicate your gender: Male [] Female []
2. Indicate your age []:  
13-16 years [] 17-20 years [] 21-25 years [] 26 and above []
3. Indicate the academic level reached before joining TVET training:  
Class 5-7 [] K.C.P.E [] K.C.S.E [] Diploma []

**SECTION II: INSTRUCTORS COMPETENCY AND TRAINEES PARTICIPATION RATES.**

4. In your own opinion did you enroll in a course of your choice?  
Yes [] No []

5. If No in (4) above what were the reasons for not enrolling in a course of your choice.....

6. In your opinion is the number of Instructors in your institution adequate:

Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ]

Extremely Disagree [ ]

**SECTION III: RELEVANCE OF TRAINING PROGRAMMES AND TRAINEES PARTICIPATION RATES IN TVET.**

Kindly rate the following statements as they relate to the relevance of TVET curriculum. Tick [√] the most appropriate.

Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D),

Strongly Disagree (SD).

	The curriculum offered	SA	A	N	D	SD
7	Equips the trainees with lifelong skills.					
8	Attracts more trainees to TVET					
9	Meets the labour market needs					

**SECTION IV: ADEQUACY OF FINANCIAL RESOURCES AND TRAINEES PARTICIPATION RATES IN TVET INSTITUTIONS.**

Rate the following the following as they relate to availability of financial resources. Tick [√] the most appropriate.

SA (Strongly Agree), A (Agree), N (Neutral), D (Disagree),

SD (Strongly Disagree).

	<b>Statement</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
10	There is adequate provision of instructional resources.					
13	There is proper funding of TVET facilities.					

**SECTION V:TEACHING AND LEARNING FACILITIES AND PARTICIPATION RATES IN TVET INSTITUTIONS.**

14.Kindly rate the satisfaction of the facilities in your institution.

Extremely Satisfied [ ] Satisfied [ ] Neutral [ ] Dissatisfied [ ]

Extremely Dissatisfied [ ]

Thank you.

**APPENDIX V**

**OBSERVATION CHECKLIST**

	<b>Resource</b>	<b>Available</b>	<b>Not available</b>	<b>Adequate</b>	<b>Not adequate</b>
1	Classrooms				
2	Staff Offices				
3	Electricity supply				
4	Water supply				
5	Workshops				
6	Tools and equipments				
7	Furniture				
8	Library				
9	Computer Laboratory				

**APPENDIX VI**

**WORK PLAN 2018**

Activity	March-May	June	July	August
Proposal writing and presentation				
Permit search and appointments				
Data collection, analysis and report writing				
Submission of report				



## APPENDIX VII

### RESEARCH BUDGET

Activity	Estimated Amount ( KSh)
Printing and binding	12,000.00
Transport	16,000.00
Communication	3,000.00
Internet services	8,000.00
Research permit fee	1,000.00
Miscellaneous expenses	20,000.00
<b>Total</b>	<b>60,000.00</b>

## APPENDIX VII : RESEARCH AUTHORIZATION



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 3310571, 2219420  
Fax: +254-20-318245, 318249  
Email: dg@nacosti.go.ke  
Website : www.nacosti.go.ke  
When replying please quote

NACOSTI, Upper Kabete  
Off Waiyaki Way  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/16442/25487**

Date: **21<sup>st</sup> September, 2018**

Daniel Mutuku Wausi  
University of Nairobi  
P.O. Box 30197-00100  
NAIROBI.

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on *“Institutional factors influencing trainees participation rates in Public Technical Training Institutes in Makueni County”* I am pleased to inform you that you have been authorized to undertake research in **Makueni County** for the period ending **20<sup>th</sup> September, 2019**.


You are advised to report to **the County Commissioner and the County Director of Education, Makueni County** before embarking on the research project.


Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2012 to conduct research in Kenya, you shall deposit a copy of the


**APPENDIX IX : RESEARCH CLEARANCE PERMIT**

**THIS IS TO CERTIFY THAT:**  
**MR. DANIEL MUTUKU WAUSI**  
**of UNIVERSITY OF NAIROBI, 59-90136**  
**NZEEKA, has been permitted to conduct**  
**research in Makueni County**  
**on the topic: INSTITUTIONAL FACTORS**  
**INFLUENCING TRAINEES PARTICIPATION**  
**RATES IN PUBLIC TECHNICAL TRAINING**  
**INSTITUTES IN MAKUENI COUNTY**  
**for the period ending:**  
**20th September, 2019**

**Permit No : NACOSTI/P/18/16442/25487**  
**Date Of Issue : 24th September, 2018**  
**Fee Recieved :Ksh 1000**



  
**Applicant's Signature**

  
**Director General**  
**National Commission for Science, Technology & Innovation**