INSTITUTIONAL FACTORS INFLUENCING TRAINEES’ PARTICIPATION IN TECHNICAL TRAINING INSTITUTES IN KAJIADO COUNTY

Njoroge Stella Wambui

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DECLARATION

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

__________________________

Njoroge Stella Wambui

E55/72361/2014

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

_______________________________

Dr. Rose Obae
Senior Lecturer
Department of Educational Planning
University of Nairobi

_______________________________

Mr. Ferdinand Mbeche
Lecturer
Department of Educational planning
University of Nairobi
DEDICATION

This research project is dedicated to my son Venecius, father Lucas Njoroge and Mother Margaret Wambui
ACKNOWLEDGMENT

I thank the Almighty God for giving me a chance to study. My sincere gratitude go to my supervisors Dr. Rose Obae and Mr Ferdinand Mbeche for their time, suggestions and guiding me throughout this research project. I am also grateful to the principals, HODS and trainees who filled in my questionnaires.

I would also like to acknowledge the valuable contributions from my friends and members of my educational class. I am also grateful to all whom I may not thank individually but rendered contribution in one way or another in this research. My special gratitude to my family; Son Venecius, Father Lucas Njoroge, Mother Margaret Wambui and my sisters Catherine, Fransisca, Florence, Trizah, Lucy and Suzzie who supported me throughout my study.

God bless you all.
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ABBREVIATIONS AND ACRONYMS

GOK Government of Kenya

HOD Head of Department

MoE Ministry of Education

MOEST Ministry of Education Science and Technology

KNEC Kenya National Examination Council.

TIVET Technical, Industrial and Vocational and Entrepreneurship Training

TTI Technical Training Institute

TVET Technical, vocational and Entrepreneurship Training

UNESCO United Nations Educational Scientific and Cultural Organization
ABSTRACT

The purpose of this study was to investigate institutional factors influencing trainees’ participation in Kajiado County. The study sought to establish the extent to which physical facilities, instructional materials, learning environment and teaching personnel influence trainees participation in technical training institutes in Kajiado County. Descriptive survey method was employed to conduct the research. The primary source of data was 102 trainees, 20 HODS and 4 principals. Simple random sampling was employed to select trainees’ while purposive sampling was employed to select HODS and Principals. Observation checklist and questionnaires were the main data gathering instruments while interview and document analysis were employed to enrich the data gathered through observation checklist and questionnaires. Data was analyzed using frequencies presented in tables, percentages, pie-charts and graphs. Qualitative data was incorporated in research findings on the basis of reviewed literature and field experiences. This was shown up subjectively in comments of the researcher. From the findings the study found out that most of the technical institutes had inadequate physical facilities and this affected trainees’ participation. The study also found that instructional materials were inadequate where training equipment and raw materials for practical training was a major problem thus leading to more theoretical training. In relation to learning environment, the study found out that it did not affect trainees’ participation much, while the study found out that technical training institutes lacked enough teaching personnel. The study concluded that inadequate physical facilities, instructional materials, shortage of teaching personnel and poor learning environment affect trainees’ participation. The study recommends for provision of adequate equipment/ facilities, instructional materials and adequate and qualified teaching personnel. The study further recommends for study to examine strategies on how to increase enrolment in technical training institutes. Additionally, a similar study be carried out in other Counties so as to compare with findings in this study and also a study to investigate how TTIs can be made affordable to a majority of students who come from economically poor backgrounds.
CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Skills and knowledge are the engines of economic growth and social development of any nation (Goel, 2010). Technical Vocational Education and Training (TVET) holds the key to training the skilled and entrepreneurial workforce needed for the changing technological workforce (Afeti, 2010). Technical Vocational Education and Training (TVET) is used as a comprehensive term referring to those aspects of the educational process involving in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life (UNESCO, 2002).

UNESCO, (2012) postulates that teaching and learning process its effectiveness and participation is a measure of quality of any TVET programme. Quality facilities and equipment is fundamental to the provision of quality and relevant TVET education. UNESCO further noted availability of a systemic approach to quality assurance to support practitioners and policy-makers is important in improving the quality of training provision, and also guide students in making choices thus improving participation. Charner (1996) observed that, learners in developing countries have begun to show more interest in technology. According
to UNESCO, (2012) teaching learning strategies must adapt to more flexible and generic approaches that embrace the use of digital media where TVET students use ICT to enhance learning. UNESCO, (2000) affirms that availability of a range of teaching and related equipment supplies, furniture and various forms of printed media for teachers and learners is crucial in facilitating the process of teaching and learning worldwide.

Countries like Italy, Brazil, China, Sweden, Australia and Japan have given more recognition to TVET through adequate funding and centralized management. For example in Australia all TVET training is regulated by the National Skills Framework (NSF), a body that sets out the national training requirements to ensure quality and national consistency in terms of qualifications and the delivery of training (UNESCO-UNEVOC, 2012). In America vocational and academic education are integrated and the education system leads to both academic and occupational competencies (US department of education, 1992).

Most countries in the Southeast of Asia like the Philippines, Brunei, Malaysia, and Thailand, are positioning TVET in the mainstream education system and setting it as a priority in their education agenda thus enhancing access and participation (Paryono, 2005). The People’s Republic of China (PRC) has embraced TVET for development and its funding scheme for TVET is one of the most expensive undertakings in the world (ADB/OECD, 2008). Through this
provision the government has seen better acquisition of skills, high retention and transition of students in institutions.

Technical colleges in Nigeria are faced with series of challenges which hinders its programmes. According to Ibeneme (2007), Nigeria does not seem to accord TVE the attention it deserves despite its proven contributions in other nations. Corroborating this view, Aina (2006) asserted that since the introduction of TVE in Nigeria educational system some years ago, participation in its programmes has remained low. The causes of low participation in Technical, vocational education and training in Nigeria include; acute shortage of TVET teachers, insufficient material resources for training, poor workshop organization, inadequate instructional materials, harsh and intimidating lecture-room, poor quality preparation by TVET lecturers and unhealthy classrooms.

The Ghanaian government in its effort to include vocational subjects in general education, established a Council for Technical and Vocational Educational and Training (COTVET) by an Act of parliament under the Ministry of education to oversee all TVET activities. COTVET is expected to address the issues of multiplicity, oversight responsibility and testing standards of TVET system in which the government has pledged full responsibility in provision of teaching learning resources for the first year of apprenticeship training. Through this government’s provision, the institutions are supplied with educational facilities
that ensure production of high skilled graduates that meet the needs of the labor market (Johansson and Adams, 2007).

However, in Kenya, the provision of educational opportunities to all children has been the government’s plan for Economic Recovery Strategy (ERS) and Poverty Reduction Strategy (PRS). One of the highest priorities of the two strategies has been to collaborate with development partners in providing additional learning facilities. A position very well supported by Koech, (1999) and Kamunge (1988) that underscores learning infrastructure as a component of quality education. With the high cost of providing TVET, it is difficult for the segment of the population to access TVET without a heavy subsidy from the government and financial support in form of bursary, scholarships and loans (TVET, 2007).

In 2008 the Ministry of Higher Education, Science and Technology announced there lease of TIVET Bursary. The bursary targets students in public technical institutions under the Ministry. The bursary kit targets youths from poor households, orphans, women in under-represented subject areas particularly science, engineering and technology and youth with special needs. This move by the government is posed to increase access and participation to Technical, Industrial, Vocational and Entrepreneurship Training (MoE 2008).

Studies carried out by Okeno (2011) on institution infrastructure and students’ achievement in public secondary institutions in Rachuonyo North District posit
that, infrastructural conditions in Kenya create hurdles to quality education and forms barriers to retention. Most of the institutions do not meet the basic standards of health and use of sustainable methods is marginal. These leaves the Youth polytechnics and Technical Training Institutes to grapple with run down physical facilities’ and obsolete equipments due to lack of funds.

Engineering and technological training is a primary element in the establishment of Technical, Industrial, Vocational and Entrepreneurship Training institutions. In Kenya, the enrolment in engineering courses has never surpassed 30% of the total enrolment in Technical and vocational education and training institutions. Under higher education, there are two polytechnic university colleges, 2 national polytechnics and 37 Technical Training Institutions that provide various courses which include; engineering, medical sciences, applied sciences, ICT, business studies among others. The Ministry of Higher Education statistics shows that only 10,657 students enrolled in engineering courses nationally against 88,833 total enrollment in TIVET institutions representing 27.9% in 2007. In 2010 13,232 students enrolled in engineering against 121730 representing 10.86% (Gachie, 2013:15).

The effectiveness of all education system depends largely on the quality of teaching and learning in the classroom, workshops and laboratories where education takes place. The participation of learners in instruction in any technical
and vocational trades must be active and direct. Direct participation exists where the learner is physically involved in the academic and practical activities in that trade. The learner must be particularly affected and exhibit positive perceptions and behaviours that indicate the attainment of the desired goals (World Bank, 2012).

A community which wants to develop must provide education to its youth. Students participation to education does not only benefit the individual who receive it but also the society in general because it is key to the development of any nation (UNESCO, 2005). Participation involves the ability and means of retaining enrolled trainees in the educational institution till they complete the cycle of education.

Kajiado county has seventeen registered Technical and Vocational Educational Training Institutes. The participation rates from these institutes vary from year to year, the number of students who enroll at the beginning of the course is high but the numbers decreases towards completion of the course. (Interview principals Kajiado County 2016). Records available from the County Director Kajiado County shows the enrolment of one of the public institute in the County.
Table 1.1 Enrolment and Participation of one of the Public TTI (Masai) in Kajiado County 2011-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrolled</th>
<th>Participation</th>
<th>Dropout Rate%</th>
<th>Participation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>384</td>
<td>299</td>
<td>22.14</td>
<td>77.86</td>
</tr>
<tr>
<td>2012</td>
<td>264</td>
<td>195</td>
<td>26.12</td>
<td>73.88</td>
</tr>
<tr>
<td>2013</td>
<td>314</td>
<td>237</td>
<td>24.67</td>
<td>75.33</td>
</tr>
<tr>
<td>2014</td>
<td>295</td>
<td>200</td>
<td>32.22</td>
<td>53.78</td>
</tr>
<tr>
<td>2015</td>
<td>341</td>
<td>271</td>
<td>20.65</td>
<td>79.35</td>
</tr>
</tbody>
</table>

Source: Office County Director 2016

The institution principals attribute low participation to some trainees who do not come back from attachment to sit their final theory examination. This is after getting exposed to the world of work and makes them fill that exams are not important and some are not prepared to sit their exams. Cases of dropout has also been contributed by the trainees’ inability to cope with the training demands associated with low entry behavior, lack of training facilities, lack of instructional materials, poor learning environment and lack of enough instructors in their areas of specialization. To improve participation of trainees the principals in conjunction with other education stake holders were to equip their training institutes with adequate infrastructures, instructional materials, ensure that the learning environment was conducive and employ enough teachers in all courses.
It is also the duty of educators to ensure that the students learn and achieve in the classroom, and complete their training by ensuring that there is progress, retention, completion and transition from one year to the other to ensure full participation. This will enable them to function as productive citizens. If they fail, then the future development of our nations will likely fail. It is upon this background that the study was carried out to investigate institutional factors influencing trainees’ participation in Technical Training Institutes in Kajiado County.

1.2 Statement of the problem

Education is key in the protection of democratic institution and human rights through well informed citizens. For the trainees to contribute effectively and equally to the attainment of industrialization goals they must be imparted with the relevant skills and therefore access and participation is key to this development yet they have been ignored in most of the institution. Training for quality skills, require appropriate training equipment and tools, adequate supply of training materials, supply of relevant text books, training manuals, qualified staff and practice by the students.

Participation involves the ability and means of retaining enrolled trainees in the educational institution till they complete the cycle of education. Despite the opportunities brought about by TVET and various government interventions to ensure that TVET graduates are well equipped with the requisite practical skills
for the job market as well as its benefits, many trainees’ in Kajiado County does not complete the cycle. This could partly be due to institutional factors which affects the acquisition of knowledge, skills and competence which in turn influences the participation of trainees’. The continuous trainees’ low completion, transition and graduation rate in Kajiado County prompted the researcher to investigate the extent to which institutional factors influences participations of trainees’ in Technical Training Institutes in Kajiado County.

1.3 Purpose of the Study

The purpose of the study was to investigate institutional factors influencing trainees’ participation in Technical Training Institutes in Kajiado County.

1.4 Objectives of the study

The study was based on the following objectives:

1. To determine the extent to which physical facilities influence trainees’ participation in Technical Training Institutes in Kajiado County.

2. To assess the influence of instructional materials on trainees’ participation in Technical Training Institutes.

3. To establish the extent to which learning environment influence trainees’ participation in Technical Training Institutes.

4. To examine the extent to which teaching personnel influence trainees’ participation in Technical Training Institutes.
1.5 Research Questions

1. How does a physical facility influence trainees’ participation in Technical Training Institutes in Kajiado County?

2. To what extent do instructional materials influence trainees’ participation in Technical Training Institutes?

3. To what extent do learning environment influence trainees participation in Technical Training Institutes?

4. How does teaching personnel influence trainees’ participation in Technical Training Institutes?

1.6 Significance of the study

It is hoped that this findings may be of value and interest to; instructors and administrators as the findings may generate new ideas which may make them understand how to make TVET more productive, practical and attractive to many students. It may also help policy makers in making policy suggestions on how to promote TVET in order to achieve vision 2030. The study finding may be useful to scholars as a reference material for data needed in promotion of participation in Technical Training Institutes. The study may contribute to the existing body of knowledge in the field of educational planning studies as well as prompts further studies.
1.7 Limitation of the study
The researcher was not able to control the attitudes of the respondents which might have affected the validity of their responses, but this was controlled by right approach and reassuring the respondents that the information provided was for research work only and was confidential.

1.8 Delimitation of the study
The study used principals, HODs and trainees as respondents yet other stakeholders were very important in influencing participation to TTIs. Moreover, the study only considered four factors that were likely to influences participation to TTIs leaving out other equally vital factors.

1.9 Basic assumption of the study
The study was carried out on the basis of the following assumptions;

i. That the information given reflected a true report on participation in TTIs given that the researcher had no control over the respondents’ dissemination of any information.

1.10 Definition of significant terms
Instructional materials refer to any teaching material that helps the instructors to promote teaching and learning activities in technical training institutes.
Learning environment refers to diverse physical locations, contexts and cultures in which trainees’ learn in technical training institute.

Participation refers to retaining enrolled trainees’ into a technical training institute until completion of education cycle.

Physical facilities these are facilities like buildings, classrooms, workshops libraries, laboratories, and offices in technical training institutes.

Technical education refers structured system aimed at providing recipients with the necessary knowledge and skills to perform practical and industrial tasks.

Technology refers to body of knowledge and application of this knowledge combined with resources to produce outcome in response to human desire and needs.

Training refers to organized activity aimed at imparting practical skills, knowledge and attitude to perform industrial tasks.

Teaching personnel refers to teacher/trainer or provider of knowledge and skills or a person who is engaged to deliver a training programme in TVET.

1.11 Organization of the study

The study is organized into five chapters. Chapter one consists of the background of the study, statement of the problem, purpose of the study, objective of the study, research questions, significance of the study, assumption of the study, limitations and delimitations of the study, definition of significant terms and organization of the study. Chapter two consists of review related literature under
the following sub headings: physical facilities, instructional materials, learning environment and teaching personnel. Chapter three consists of research methodology on the following: Introduction, research design, target population, sample size and sampling procedure, research instruments, instrument validity, reliability of the instrument, data collection procedure and data analysis techniques. Chapter four consists of data analysis interpretation and discussion of the findings. Chapter five provides the summary of the study, conclusion, recommendations and suggestions for further research.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction
This section deals with related literature review under the following headings: physical facilities on trainee’s participation, instructional materials on trainees’ participation, learning environment on trainee’s participation and teaching personnel on trainee’s participation.

2.2 Physical facilities and trainees’ participation in Education
Poor physical facilities still remain a major barrier to improving access and participation to institutions of higher education in Kenya. Ideally, institution infrastructure should be designed to provide access to students with special needs and be gender sensitive especially in relation to health, hygiene and sanitation provision (World Bank, 2001).

Ministry of Education Science and Technology, MOEST (2005) explains that adequate and appropriate facilities for teaching and learning enhances effective implementation of education programme hence high participation. A study carried out by (Lemaster, 2009) had it that Students are less likely to attend institution when buildings are in need of structural repair and when they use temporary structures. Studies show that institutions with poorer facilities students attended
less days on average. This low attendance was in turn linked to lower scores and high repetition rate. (Lemaster, 2009). In Zambia, UNESCO (2003) established that physical facilities like classrooms, workshops, libraries and furniture were inadequate in all institutions studied. However, to overcome the inadequacy, some institutions had signed agreements with some workshops and public institutions where they took their students for practical lessons to ensure their students participated fully.

(Gurney, 2007) noted that lack of physical facilities affects the teachers morale and effectiveness while poorly maintained physical facilities affects the learners ability to succeed because they impact on factors like learners attitude towards the school, self-esteem, security, comfort and social behavior thus leading to low participation.

Ngome (2009) reported that over the past two decades, TVET institutions have continued to receive less financial allocations from the government than the estimated annual expenditure. Consequently, physical facilities are dilapidated and lack maintenance, equipment used for training in most institutions is outdated while vital aspects of the training support system are wanting with such areas as library acquisitions being relegated to the periphery with negative impact on the quality of TVET programmes thus leading to low participation.
A study by (Hooker et. al; 2011) show that inadequacy of infrastructure and equipment affects curriculum implementation in TVET institutions affecting participation of trainees the study suggest that the challenge of facilities cannot be divorced from the inadequacy of finances in the affected institutions. Ayuba and Gatabazi (2010) established that high cost of construction of facilities, equipment, maintenance and the provision of consumable training materials did hinder access and participation of TVET in Rwanda. The same challenge of facilities is echoed in other studies that show that limited school budgets for up-to-date tools and equipment, infrequent repair of old equipment; high costs of practical training materials and equipment constrained the curriculum implementation and participation efforts in TVET institutions (Farstad, 2002; Koech, 1999; Sharma, 2008). Moreover evidence suggests that obsolete equipment existing in technical colleges in Kenya compromises effective training of youth for a modern economy (UNESCO, 2010).

2.3 Instructional materials and trainees’ participation in Education

Aina (1982) asserts that instructional materials are those materials or resources used in any teaching exercise to promote greater understanding of the learning experience. They are used to provide the richest possible learning environment which helps the teacher and learners to achieve specific objectives. They also assist the teachers to communicate more effectively and the learners learn more meaningfully and permanently.
Teacher support materials serve as a compass that gives teachers direction on how to enact the curriculum (Schneider & Krajcik, 2002). According to Collopy (2003), teacher support materials are an integral part of teachers’ daily work as they support classroom instruction. Stronkhorst and Van den Akker (2006), point out that curriculum materials can play an important role in implementation. The support materials can help teachers overcome the barrier of uncertainty, reduce the amount of work involved in implementing the new approaches, and reduce stress levels. They can also orientate teachers to new subject matter and new teaching methods Ottevanger (2002), Grayson (2003), claim that lack of resources or the poor quality of resources, have often been identified as undermining the effort of even the best teachers, and can seriously hinder the implementation of the new ideas in learning institutions hence less participation.

Bandele and Faremi (2012) established that lack of standard workshops for practical work and lack of related modern instructional materials were among the major challenges facing the teaching of technical and vocational education in Technical Colleges leading to low participation. In most developing countries, TVET is limited in scale, scope, quality and relevance. The programmes are not relevant to the needs of the local labour market, the curricula and syllabi are outdated and the institutions lack the tools and equipment necessary for a practical education. Where present, the equipment in workshops and laboratories is often outdated, bearing little resemblance to the technologies currently used by
industry. In sufficient training equipment leads to trainee overcrowding during practical demonstrations, with most of the students only observing the demonstration and not having the opportunity to get some hands-on practice. Due to the fact that the institutions are poorly resourced, the education and training remains theoretical and the graduates are not considered more skilled than their academic counterparts by the labour market. The institutions thereby acquire a poor image, and produce graduates with lower employability and a number of them drop out before graduating due to the fact that after learning majority of the employees are not willing to take them (Nuffic, 2010)

The results of findings based on teaching-learning materials and academic performance in mathematics by Yana and Otieno (2010) agreed with that of Mutai (2006) who asserted that learning is strengthened when there is enough and excellent use of reference materials such as textbooks, exercise books and teaching aids. Wale (2006) noted that for effective teaching and learning, instructional materials and facilities are necessary on their own they help to facilitate teaching and learning and are used to influence concrete and permanent change in technical behavior. He was of the opinion that the use of instructional materials would make discovered facts glued firmly to the memory of students thus increasing their retention and transition rate from one level to the other.
UNESCO (2000) affirms that availability of a range of teaching and related equipment supplies, furniture and various forms of printed media for teachers and learners is crucial in facilitating the process of teaching and learning worldwide.

Insufficient equipment for meaningful practical activities like ICT leads most teachers to the theoretical method of teaching technical and vocational subjects (Okorie, 2001). The instructional method used in teaching vocational and technical subjects is full of ‘showing’, ‘telling’ and ‘observing’ with a few cases of ‘doing and practice’ thus contradicting the recommended ‘learning by doing’ and guided discovery’ instructional strategies (Oviawe, Ezeji & Uwameiye, 2015). This mismatch is also against the principle of vocational education which stipulates that the training environment should be a replica of the work environment. These have resulted in reduction of students’ interest in technical subjects thus lowering the participation rate. Therefore, poor participation could be attributed to inadequate instructional materials and equipment

2.4 Learning Environment and trainees’ participation in education

Research done by Gurney in London noted that successful teaching and learning took place in school buildings that were safe, clean, quiet, comfortable and healthy (Gurney, 2007). In order to improve teaching learning process general cleaning and particularly the cleanliness of class rooms are necessary. Proper
school facilities are basic ingredients for enhancing good learning atmosphere and are very important for ensuring that proper participation take place.

Lyons (2012) documented that there is an explicit relationship between the physical characteristics of school buildings and educational outcomes therefore good maintenance, modern systems, and flexible designs are required. The School facilities should be flexible enough to accommodate changing learning patterns and methods. A school should be set up in a suitable atmosphere. Its location has enormous significance. It must have plenty of space with shady trees around and this enhances participation. The school building should be attractive, have adequate lighting and comfortable seating. UNESCO (2002) reports that unsuitable furniture causes back problems, poor concentration spans and writing difficulties, thus reducing learning opportunities, hence less participation. A conducive teaching and learning environment for acquisition of skills is a sentiment supported by Myers and Jones (1993) who observed that active learning environment enables students to talk, listen, write, and reflect as they approach course content through problem solving and critical thinking thus enhancing participation.

Lemaster et al (2009) observed that odors can also destruct students but can be removed with good ventilation. Cleanliness of the institution is an important aspect of the institution environment. Clean institutional environment not only
lowers the threat of spread of illness, but also conveys a caring message to the students and teachers. The environmental quality of institution is always symptomatic of institution administrator attitude, public priority and institutional objectives. Increasingly, communities have observed that deteriorating building of any type encourage looting vandalism, arson, dumping, drug traffic and other criminal use thus lowering retention, progression and completion of students in their studies.

2.5 Teaching personnel and trainees’ participation in education

In general highly competent, qualified, motivated, flexible and creative TVET teachers and instructors are the backbone of any TVET system, capable of adjusting to changing technological environments and creating conducive learning environments for different target groups, (MoE, 2008).

Research done by Abuel-Ealer revealed that teachers are critical in the provision of quality education because they impart literacy and numeracy skills plus a set of complex analytical, social and emotional skills (Abuel-Ealer, 2012). Therefore; he noted that educational institutions should have sufficient and highly qualified teachers for provision of quality education. In Kenya, Khatete noted that teachers are critical in the provision of quality education and teacher competency pre-service training can be improved through in-service programmes whose aim should be to enable a practicing teacher to improve on instructional and
professional knowledge, interests and skills (Khatete, 2010). Teachers in TVET institutions lack necessary industry-based technology skills updated through industrial attachment thus lowering participation in technical institute (Nyerere, 2009).

The teacher-pupil ratio greatly influences the teaching profession and hence performance, schools with low teacher-pupil ratio greatly give individuals attention to the pupil, there is increased interaction which enables the learner to be motivated this enhances fully participation (Chelimo, 2005). Therefore schools suffering constraints of facilitating tend to do poorer than those with adequate facilities. Nyerere, (2009) further notes the need for an establishment well-structured and coordinated industrial exposure for trainees in TVET institutions.

There is need for teacher student ratio to be enhanced thus making the instructors to have a class that they can be able to manage well without straining as this will make them more competent and thorough so that learners’ needs are well addressed and catered for resulting into full participation. Therefore there is need to retrain teachers to be instructors with the right facilities, equipment and class ratio this will enhance quality to be realized and achieved hence more participation.

Murosiki (2008) posited that the most important strategy for effective teaching is the connection that a teacher makes with his students the absence of which would
create an un-conducive environment for teaching and learning. This view is shared by a number of researchers who found out in their studies that meaningful teaching and learning takes place in an enabling environment where; teachers respect the views of students, students feel free to ask questions and actively take part in all activities that leads to the acquisition of knowledge (Lubawy, 2003; Ralph, 2003; Gurney, 2007). A teacher’s knowledge of the subject matter is highly associated with effective teaching. Johnson and Johnson (2010) found out in their studies about students’ perception of effective teaching in technical institutes that ‘students expect and appreciate that their instructors are knowledgeable in the field of study in which they teach’. Smittle (2003) and Okoronkwo, Onyia-Pat, Agbo, Okpala and Ndu (2013) also agreed that knowledge of subject matter is vital so far as effective teaching was concerned. Closely related to a teacher’s knowledge of the subject matter is the teacher’s ability to communicate that knowledge to students otherwise the knowledge remains bottled up. Johnson and Johnson (2010) and Okoronkwo et al. (2013) emphasised that the ability to communicate well is a compelling quality that a teacher who wants to be effective in the classroom must have to allow participation in all students.

The TVET bill of 2008 recommended a strategy to develop national skills and training to boost the quality of output from TVET institutions and to equip TVET teachers with modern skills and materials for practical training (KESSP GoK, 2007). However, the lack of implementation of this policy has affected the quality
of graduates from these institutions (World Bank, 2007). This is because TVET teachers are constantly faced with changes in technology within their teaching domain. Every TVET teacher needs to continuously upgrade and update their skills to ensure that their trainees are able to progress and meet the needs of the labour market.

2.6 Summary of literature review

From the reviewed literature, it was evident that several aspects of TVET had been addressed by various scholars, government organizations, institutions and other stakeholders. The reviewed literature revealed that resource availability in schools was inadequate in terms of reference materials, infrastructure availability and pupil teacher ratio hence reducing participation in Technical Training Institutes. TVET plays a major role in the economy especially in the development and production of middle level manpower required for the economy at large. This study therefore aimed at putting measures in place to check on the availability of physical facilities, instructional materials, learning environment and teaching personnel necessary so as to improve participation in Technical training institutes in Kajiado County.

2.7 Theoretical Framework

The study was based on the Human Capital theory as proposed by Schultz (1961). Human capital theory suggests that education or training raises the productivity of
workers by imparting useful knowledge and skills, hence raising workers’ future income by increasing their lifetime earnings. This theory related directly to TVET because of its orientation towards the world of work plus its emphasis on acquisition of employable skills. The theory postulated the input, process and output model. The input which included the trainees, teaching personnel, equipments and infrastructures’ should be considered as investment in education and training. The process entailed the strategies put in place to enhance transformation of the untrained trainees into a skilled and competent graduate who at the end is regarded as an output of the training process.

However Ferrer and Prat, (2010) and Schummer and Eso, (2008) have criticized the human capital theory on the bases that, it tries to explain that productivity is directly related to education and training and bases the success of the outcome on formal training. Training institution as a school is a system that is influenced by external and internal factors which the human capital does not consider. The quality and relevance of the output of this training system is greatly influenced by the training process. Thus a higher productivity indeed is influenced by many other factors.
2.8 Conceptual Framework

Figure 1.1 Factors influencing participation in TTIs

The conceptual framework in figure 1.1 highlights the institutional factors influencing participation in TTIs which are the inputs. Participation of trainees’ depends on physical facilities, instructional materials, learning environment and teaching personnel. This eventually determines participation to TTIs which may be measured by increase in enrolment rates, retention rates or completion rates. Institutions with enough and modern teaching and learning resources will provide
quality teaching hence increased participation. Moreover, availability of teaching personnel is critical to preparing students with quality marketable skills and thus, if there are no sufficient, trained and qualified teachers then participation will be low.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section deals with the methodology used in carrying out the research. This included, the research design, target population, sampling techniques and sample size, research instruments, reliability and validity of the research instrument, data collection procedures and data analysis techniques.

3.2. Research Design

The study was conducted through a descriptive survey research design. Mugenda and Mugenda (2003) posit that descriptive survey research design allows the researcher to secure information concerning a phenomenon under study from a selected number of respondents. Descriptive survey design enabled the researcher to describe the population with respect to the given outcome and to collect information on many variables from as many numbers of respondents and hence it was an efficient way of collecting information in this particular study.

3.3. Target Population

The target population is a set of individuals, items, and objects with the same common observable characteristics Mugenda and Mugenda (1999). The target population comprised 17 Technical Training Institutes in Kajiado County. The
study targeted 17 Principals, 85 HOD’S and 1800 trainees. The trainees were chosen because they were the main participants in training while the Principals and the HOD’s ensured that participation took place in their institutes.

3.4. Sample Size and Sampling Procedure

The sample for trainees’ was obtained by using simple random sampling because it gave equal opportunity to all members of the target population to be selected into the sample. Kerlinger (2000) recommends a sample size of 30% to be appropriate in making estimates of the characteristics studied. For the HOD’S and Principals purposive sampling was used because the role they play possessed reasonable understanding of the information sought by the researcher.

Table 3.1 Target sample Population

<table>
<thead>
<tr>
<th>Study sample</th>
<th>Total population</th>
<th>Sample size</th>
<th>Sample percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees</td>
<td>1200</td>
<td>122</td>
<td>11.7%</td>
</tr>
<tr>
<td>HODS</td>
<td>85</td>
<td>20</td>
<td>23.5%</td>
</tr>
<tr>
<td>Principal</td>
<td>17</td>
<td>4</td>
<td>23.5%</td>
</tr>
<tr>
<td>Total</td>
<td>1302</td>
<td>146</td>
<td>19.57%</td>
</tr>
</tbody>
</table>
3.5 Research Instruments

The main tool of data collection for this study was questionnaires, document analysis, observation check list and interview schedules. The questions were designed for Principals, HODs, and trainees’. According to Mugenda and Mugenda (2003), questionnaires allow measurements for against a particular view point at the same time it collects large amount of information in a reasonable quick space of time. The questionnaires were administered to trainees’ respondents and HOD’S while the interview schedule was administered to the Principals because it allowed the researcher to obtain in-depth data which was not possible to get using questionnaires.

Direct observation checklist was used to capture the state of physical facilities. This enabled the researcher to verify information given by respondents through questionnaires. Document analysis was used to capture information on enrolment and completion of trainees’ in technical training institutes. This allowed verification of information provided.

3.6 Instrument Validity

Validity is the accuracy, soundness or effectiveness with which an instrument measures what it is intended to measure. In order to improve validity of the instrument the researcher pre-tested the questionnaires in a pilot study. Orodho (2005) recommends that a population of 10% of the sampled population can be used
in a pilot study. Therefore, the researcher conducted a pilot study on 16 respondents who did not participate in the main study. The response obtained was used to guide the researcher in making some changes in the questionnaire to enhance its validity. A question of general comment on the aspect of each variable to be used in the study was included to obtain relevant and adequate information.

3.7 Reliability of the Instrument

Reliability concerns the degree to which a particular procedure gives similar results over a number of repeated trials (Orodho, 2009). There liability of instruments was ascertained by testing the questionnaires in a pilot technical training institutes two times in two separate occasions. Test-retest reliability method was used to establish the coefficient of internal consistency of the research instruments. The scores on the two occasions was then correlated using the Pearson’s Product Moment Correlation Coefficient. Where

\[ r = \frac{\sum XY - (\sum X)(\sum Y)}{N} \frac{\left[ \sum X^2 - (\sum X)^2/N \right]}{\left[ \sum Y^2 - (\sum Y)^2/N \right]} \]

Where

\( r \) = pearson’s correlation coefficient

\( x \) = values in first set of data

\( y \) = values in second set of data

\( N \) = total number of scores (Kombo & Tromp, 2006).
According to Nachmias and Nachmias (2009) positive coefficient of over 0.7 is considered to be reliable, and the higher the coefficient the more reliable the instruments.

3.8 Data Collection Procedures

A research permit to conduct the study was sought from the National Commission for Science, Technology and Innovation (NACOSTI), the sought consent of the Kajiado County Director so as to carry out the study in the County. Thereafter the researcher visited the institutions to introduce herself to the principals to seek consent to carry out research in their Institutions and also arrange on when to interview the Principal. The questionnaires were delivered by the researcher to the respondents in their respective institution for self administration. For accuracy and consistency the respondents were completing the questionnaires as the researcher waited and collect them on completion of data.

3.9 Data Analysis Techniques

In this study data was analyzed both qualitatively and quantitatively. Data from open ended questions in the questionnaires and interview schedules was analyzed and reported qualitatively. Qualitative data was analyzed through organizing responses in the themes as per the objectives of the study. The data was analyzed according to major themes related to institutional factors influencing participation. Quantitative data was analyzed through descriptive statistics. Responses from the
questionnaires were analyzed and reported using simple statistics such as frequencies and percentage. Statistical package for social sciences SPSS was utilized to provide descriptive statistics.

3.10 Ethical Considerations

Ethical issues relates to the privacy of possible and actual participants, voluntary nature of participation, the right to withdraw partially or completely from the process, consent, possible deception of participants and maintenance of confidentiality of data provided by individuals or identifiable participants and their anonymity (Saunders, 2007). Thus, care was taken in this research to avoid harm to all respondents for example, consent was obtained first before any engagement and their personal identity was held confidential during interviews, questionnaires and observation. Respondents were not pressured or coerced to give information and data was collected at the convenient time to both parties.
CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents data analysis and findings of the study. The study was conducted to find out institutional factors influencing trainees’ participation in technical training institute in Kajiado County, Kenya. The sample population was made up of 102 trainees’, 20 heads of departments and 4 principals. Data was collected from the sampled population using questionnaires and interviewing and it was analyzed using Statistical Package for Social Sciences (SPSS) and presented in graphs, tables, charts and percentages. The findings of the study are organized according to research questions.

4.2 Questionnaires Return Rate

Baruch (1999) defines questionnaire return rate as a proportion of the questionnaire returned after they have been issued to the respondents. Table 4.1 Shows questionnaire return rate for the study.
### Table 4.1 Response Rate to Questionnaires.

<table>
<thead>
<tr>
<th>Category of respondent</th>
<th>Number of Questionnaires</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Issued</td>
<td>Returned</td>
</tr>
<tr>
<td>Heads of departments</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Trainees’</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>122</strong></td>
<td><strong>122</strong></td>
</tr>
</tbody>
</table>

From Table 4.1, the average response rate was 100% from all the respondents. This was because the researcher went to the field in person administering questionnaires and clarifying issues where necessary. The researcher therefore determined that this response rate would be sufficient to produce reliable results. All the respondents filled and returned the questionnaires and therefore, their response rate was 100%. The total number of targeted respondents represented populations but not samples and therefore, the researcher determined that this would be sufficiently representative.
4.3 Demographic information of respondents

The demographic information sought to establish background information of the principals, heads of departments and trainees who were the main respondents of the study. Their demographic background was based on gender, age, level of study, academic qualification and years of service.

Table 4.2: Trainees’ Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>69</td>
<td>67.65</td>
</tr>
<tr>
<td>Female</td>
<td>33</td>
<td>32.35</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>

From Table 4.2, all the sampled trainees’ responded to this item the majority of the respondents (67.65%) were male. This could have been attributed by the nature of courses offered in the institutes which could be attracting more male than female. It also indicates that the gender disparity that the government normally strives for has not been achieved in Kajiado County. The female enrolment is still low despite a lot of empowerment in support of the girl child.
The relatively high enrolment of male trainees’ could be attributed to the possibility of higher female pursuit of other non-technical careers than male trainees’. It was also evident most technical institutes offered courses that have traditionally been perceived as male courses such as mechanics, electrical, building, driving, masonry, carpentry and welding (Hicks, et al., 2011).

Table 4.3 Trainees’ age distribution

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-21 years</td>
<td>31</td>
<td>30.3</td>
</tr>
<tr>
<td>22-26 years</td>
<td>67</td>
<td>65.7</td>
</tr>
<tr>
<td>27 years and above</td>
<td>4</td>
<td>3.9</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>

Findings in Table 4.3 revealed that majority (65.7%) of the trainees in the study were aged between 22 and 26 years. This shows that the bulk of enrolled students for TVET were young. Although TVET accept trainees of all ages above 18 years, the majority of entrants to these institutions are students who have just finished secondary school education.
As shown from figure 4.1, 64% of the trainees were enrolled at certificate level. The finding suggests that majority of trainees enrolling in craft courses do not meet the minimum entry requirements at diploma level hence they enroll for certificate level. The findings also suggest that the trainees who start at certificate level, very few progresses to the diploma level. Thus, there is a low progression of students from certificate level to diploma level.
Table 4.4: Heads of departments Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

From Table 4.4 the majority heads of departments were male (70%). The reason for higher proportion of male HODs than female HODs in the institutes may be largely attributed to the nature of courses offered in the institutes, where male teachers prefer technical courses to female.

The study sought to find out their academic qualifications. The findings are given in Table 4.5
The findings in Table 4.5 indicated heads of department academic qualification, the findings revealed that majority of heads of departments (65%) held Bachelor of Education. This implies that most of the HODs had advanced in their education and were able to handle their respective duties in their departments. The findings also imply that the HODs were qualified to handle technical skills in their areas of study.
Table 4.6: Years of service as heads of departments

<table>
<thead>
<tr>
<th>Years</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 years</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>4-6 years</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>7-9 years</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Over 9 years</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Findings in table 4.6 revealed that most of the HODs (40%) had served between 4 and 6 years, while 25% had served over 9 years. This implies that most of the heads of departments had lots of experience. Older individuals are believed to have greater wisdom, experience, and capacity to handle both human and physical resources within the organization to enhance retentions (National Centre for Education Statistics, 2004). The findings also indicated that the HODs were familiar and well informed about the activity that goes on in their respective departments, thus enhancing competence in service delivery. Successful experience develops a positive attitude towards instructors and trainees’ and this could lead to low dropout rates of trainees. The HODs are able to identify the gaps in their respective departments, hence contributing to high participation rate.
4.3.1 Principals’ respondents

A total of 3 male and 1 female principals participated in the study translating to a response rate of 75% male and 25% female participation.

Table 4.7: Principals years of experience

<table>
<thead>
<tr>
<th>Years</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 years</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>6-10 years</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

Total 4 100

The findings in Table 4.7 indicated that 50% of the respondents had less than 5 years of experience in their work, 25% of the respondents indicated they had an experience between 6-10 years while 25% indicated they had an experience of over ten years. The data shows that 50% of the principals had a considerable long time in administrative position adequate for them to have identified factors influencing trainees’ participation.
Table 4.8: Principals age in years

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-40 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>40-50 years</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>Over 50 years</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>100</td>
</tr>
</tbody>
</table>

The findings in Table 4.8 indicated the principals’ age in years. The principals were of varying ages with 50% being in the age bracket of 40-50 years and 50% being in the age bracket of above 50 years.

The principals had varying levels of academic qualification including Bachelors and Masters of education as indicated in Table 4.9.
Table 4.9: Principals academic qualification

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of education</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>Master of education</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The findings from table 4.9 revealed that 50% of the principals had Bachelor of education while 50% had attained their Masters degree. This implies that the institutions had qualified principals and this could influence positively on retention rate of the trainees’. It is presupposed that qualified administrators place well established structures, ensuring proper coordination of activities within the organization, enhancing efficiency and development (Northhouse, 2004)

4.4 Adequacy of Physical Facilities and their Influence on Participation in Technical Training Institute

Physical facilities like classrooms, libraries, laboratories and workshops in any learning institution have an impact on participation and education quality. The researcher sought to establish the adequacy of physical facilities in Technical Training Institute from trainees’, heads of departments and the principals. The trainees’ response is given in Table 4.10
Table 4.10 Trainees’ Response on Adequacy of physical facility

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA f</th>
<th>SA %</th>
<th>A f</th>
<th>A %</th>
<th>D f</th>
<th>D %</th>
<th>SD f</th>
<th>SD %</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are adequate classrooms</td>
<td>13</td>
<td>12.75</td>
<td>11</td>
<td>10.78</td>
<td>75</td>
<td>73.53</td>
<td>3</td>
<td>2.94</td>
</tr>
<tr>
<td>There are adequate desks</td>
<td>2</td>
<td>1.9</td>
<td>22</td>
<td>21.6</td>
<td>56</td>
<td>54.9</td>
<td>22</td>
<td>21.6</td>
</tr>
<tr>
<td>There are adequate libraries</td>
<td>7</td>
<td>6.86</td>
<td>21</td>
<td>20.6</td>
<td>65</td>
<td>63.73</td>
<td>9</td>
<td>8.82</td>
</tr>
<tr>
<td>There are adequate workshops</td>
<td>7</td>
<td>6.86</td>
<td>30</td>
<td>29.4</td>
<td>54</td>
<td>52.94</td>
<td>11</td>
<td>10.8</td>
</tr>
<tr>
<td>There are adequate laboratories</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>6.86</td>
<td>61</td>
<td>59.8</td>
<td>34</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Note. SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree

Findings from Table 4.10 revealed that 54.9% of the trainees’ disagree that there were adequate desks in their institute. This implies that most trainees were sharing desks during their studies and others were likely to miss classes since there were no places to sit on. Lack of such facilities makes it difficult for trainees’ to comfortably carryout their studies hence less participation.

The findings further revealed that 52.94% of the trainees’ indicated there were no adequate workshops. This implies that teaching of most practical subjects was carried out theoretically. This was in line with a study carried out by Kenya’s National Development Plan of 2002-2008 which observed that there was more
theoretical teaching in technical training institutes at the expense of practical skills due to inadequate facilities.

From the findings 59.8% of the trainees’ indicated there were no adequate laboratories. This implies that little or no research and practical lessons were carried out. A spot check in the institutes where laboratories were available indicated that there were poorly maintained and the equipment used were obsolete and these affected trainees’ successful progression. This findings corroborates with (Gurney, 2007) who noted that poorly maintained physical facilities affects learners ability to succeed because they impact on factors like learners attitude towards the school, self-esteem, security, comfort and social behavior.

From the findings 73.53% of the trainees’ indicated that there were inadequate classrooms. The trainees’ further revealed that some of the available classes were in poor conditions. These findings imply that, many students are unlikely to enjoy their learning given the fact that the quality and adequacy of classrooms in the institution is below average. The findings are in agreement with GoK (2011) which found that there has been major back log of infrastructure provision and shortage of permanent classrooms, particularly in poor communities, at the same time, existing infrastructure are generally in poor condition due to lack of investment capital, poor construction standards and inadequate maintenance. This could highly affect the retention of trainees’ in the institutions.
In establishing whether there were adequate libraries in the institutes, 63.73% of the respondents disagreed. The 20.6% that agreed the libraries were adequate indicated that most of the textbooks and reference materials were outdated. This implies that the trainees’ could not carry out their studies outside the classroom or do further research on their own in case of clarification in the absence of a teacher. The findings contradicts (UNESCO, 2004) which opined that libraries enables students to work independently outside formal classroom and are able to further research on their projects as quality and progress of education is enhanced by provision of text books and reference materials which are all available in a good library.

Table 4.11: HODS response on adequacy of physical facilities

<table>
<thead>
<tr>
<th>Facility</th>
<th>VI</th>
<th>I</th>
<th>MA</th>
<th>A</th>
<th>VA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Library</td>
<td>1</td>
<td>5</td>
<td>13</td>
<td>65</td>
<td>3</td>
</tr>
<tr>
<td>Laboratories</td>
<td>0</td>
<td>0</td>
<td>16</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>Classroom</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>Workshop</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>70</td>
<td>4</td>
</tr>
</tbody>
</table>

Note. VI = Very Inadequate; I = Inadequate; MA = Moderately adequate; A = Adequate; VA=Very Adequate
Table 4.11 revealed the HODs response on adequacy of physical facilities. The findings revealed that there were no adequate libraries as indicated by 70% of the respondents. This implies that majority of the respondents have no access to libraries in their institutes. Lack of such facility was likely to compromise the teachers’ morale to teach thus leading to poor performance of trainees’ and the poor performance could lead to high repetition rate. These findings are in agreement with (Gurney, 2007) who noted that lack of physical facilities like libraries affects the teachers’ morale and effectiveness.

The findings also revealed that 80% of the HODs indicated that there were inadequate laboratories. The implication of this finding is that trainees’ do not do any meaningful practical work on the programme and would therefore not acquire the needed practical skills which in the view of Okoro (2006) are the hallmarks of technical and vocational education and prerequisites for national development.

The findings further revealed that they were inadequate classrooms as given by 55% of the respondents. The HODs further revealed that insufficient classrooms make teaching difficult. This implies that teachers are not able to effectively carry out their professional responsibilities. The HODs also revealed that trainees’ get frustrated when they are no rooms for them to carry out their studies thus leading to absenteeism and later dropping out. These findings concurs with Wamahiu (2005) who revealed that any trace of inadequacy leads to frustration and the motivating factor in terms of comfort diminishes. He further noted that in
appropriate school facilities such as poor classrooms or lack of classrooms may hinder students’ school attendance.

In establishing whether there were adequate workshops in the institutes, 70% of the respondents indicated that there were inadequate. This meant that a good number of students were not able to access workshops and carry out their practical effectively. This finding contradicts with that of Yadar (2007) who opines that no course in science or mathematics can be considered as complete without including some practical work so is the acquisition of skills in TVET institutions.

4.4.1 Principals’ responses on influence of physical facilities on trainees’ participation

The study sought information from the TTIs principals in the study regarding the influence of physical facilities on trainees’ participation. This was important for the study to ascertain how physical facilities influences trainees participation in Kajiado County. The findings are given in Table 4.12
Table 4.12 Principals response on adequacy of physical facilities

<table>
<thead>
<tr>
<th>Physical facilities</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Inadequate</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From the findings in Table 4.12 it was concluded that the institutions physical facilities were inadequate as indicated by 100% of the Principals interviewed. The Principals revealed that inadequacy of physical facilities was mainly contributed by high cost of construction, equipment, maintenance and the provision of consumable training materials.

The principals opined that physical facilities had a high effect on trainees’ participation. The principals indicated that an adequate facility in the institutes enhances growth in knowledge and skills of the trainees, high retention rate, movement from one grade to another and high graduation rate, but lack of these facilities led to some trainees dropping out before completing their courses.
4.5 Adequacy of instructional materials and trainees’ Participation in Technical Training Institute

A spot check on the instructional materials in the institutes confirmed that the institutes had inadequate instructional materials to accommodate the learning needs of the trainees. Table 4.13 shows divergent viewpoints from students with regard to the adequacy of instructional materials in the technical training institutes.

The adequacy of instructional materials was categorized as VI= Very inadequate, I=Inadequate, MA=Moderately adequate, A=Adequate and VA= Very adequate.

Table 4.13: Trainees response on adequacy of instructional materials

<table>
<thead>
<tr>
<th>Statement</th>
<th>VI f</th>
<th>%</th>
<th>I f</th>
<th>%</th>
<th>MA f</th>
<th>%</th>
<th>A f</th>
<th>%</th>
<th>VA f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment for training</td>
<td>0 0</td>
<td></td>
<td>58</td>
<td>56.9</td>
<td>30</td>
<td>30.4</td>
<td>13</td>
<td>12.7</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Textbooks in your field of Study</td>
<td>0 0</td>
<td></td>
<td>73</td>
<td>71.6</td>
<td>18</td>
<td>17.7</td>
<td>11</td>
<td>10.8</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Reference books in your field of study</td>
<td>0 0</td>
<td></td>
<td>62</td>
<td>60.8</td>
<td>23</td>
<td>22.5</td>
<td>17</td>
<td>16.7</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Raw materials for practical Training</td>
<td>3 2.9</td>
<td></td>
<td>57</td>
<td>58.9</td>
<td>21</td>
<td>20.6</td>
<td>21</td>
<td>20.6</td>
<td>0 0</td>
<td></td>
</tr>
</tbody>
</table>
From the findings in Table 4.13, 56.9% of the trainees’ revealed that there were inadequate equipment for training. This implies that most of the practical subjects were carried out theoretically. This findings agree with (Okarie, 2001) who indicated that insufficient equipment for meaningful practical activities like ICT leads most teachers to the theoretical method of teaching technical and vocational subjects. It is also in agreement with (Nuffic, 2010) who noted that insufficient training equipment leads to trainees’ overcrowding during practical demonstrations with most of the students only observing the demonstration and not having the opportunity to get some hands-on practice.

From the findings 71.6% of the trainees’ indicated that there were inadequate textbooks in their areas of study. This implies that the trainees’ had no access to materials for further research in their areas of study and especially in areas that needed clarifications in the absence of a teacher. Lack of textbooks could lead to poor performance and this poor performance could eventually lead to high repetition and dropouts’ rate.

The study further revealed that 60.8 % of the respondents indicated there were inadequate reference books in their areas of study. This showed reluctance by the institutions to provide the trainees’ with adequate learning resources. The 39.2% of the respondents who indicated adequacy could be attributed to non-technical
courses whose reference books are very cheap and easy to obtain compared to the technical reference books which are very expensive.

The trainees’ were asked to rate the adequacy of raw materials for practical training. From the findings majority 58.9% indicated that there were inadequate. This implies that the practical work was carried out theoretically. The 41.2% response that indicated adequacy could be attributed to non-technical courses that do not require any raw materials for practical training.

Table 4.14: HODS response on availability of instructional materials

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>f</td>
<td>f</td>
<td>f</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>There are textbooks in all areas of study</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>There are reference books in all areas of study</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>There are equipment for training</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Raw materials for practical training are always provided</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>35</td>
</tr>
</tbody>
</table>

Note: SA= strongly agree, A= agree, D= disagree, SD= strongly disagree
From Table 4.14 the finding shows that 65% of the HODS disagree that the textbooks in all areas of study were available. This could be attributed by the technical courses that require very expensive books in their areas of study. Textbooks are important resources in teaching and learning because they help in enhancing clarity of content and they give the learners and the teachers a wider scope.

In establishing whether reference books were available in all areas of study 50% of the respondents indicated that there were not available. This implies that the teachers were not able to enact and implement the curriculum effectively since they had no support materials that serve as a compass and give them direction.

The findings further revealed that 75% of the HODs disagree that the equipment for training were available. This was an indication that the teacher were not able to effectively carry out practical training. This findings is in agreement with Grayson (2003) who claimed that lack of training equipment or poor quality of training equipment have often been identified as undermining the effort of even the best teachers and can seriously hinder the implementation of the new ideas in learning in institutions hence less participation.

The study findings further indicated that 65% of the respondents disagree that raw materials for practical training are always provided. This implies that the practical
work is carried out theoretically. This could also be an implication that very expensive materials were required during practical lessons and was not easy to obtain. Lack of raw materials for practical training is a major challenge in technical training institutes and could lead to trainees’ changing their courses or completely dropping out.

4.5.1 Principals’ responses on influence of instructional materials on trainees’ participation

Figure 4.2 Principals response on Instructional materials

From figure 4.2 3(75%) of the principals revealed that there were inadequate instructional materials. They further indicated that technical courses were mostly
affected since the instructional materials required are very expensive. The principals also indicated that those in government institution could not purchase them due to low funding from the government while those in private institution opted to do with minimal technical courses. They revealed that this greatly affected trainees’ participation and led to low completion rate and very low enrolment in technical courses.

4.6 Influence of learning environment on trainees’ participation in Technical Training Institute

When the heads’ of departments were asked about the location of the institute a majority of them indicated the results as shown in Figure 4.3

Figure 4.3 Head of departments responses on rating institute location
The result in Figure 4.3 shows that the majority of the HODs (78%) indicated that the institutes were located in appropriate places. The HODs revealed that there was availability of safe clean water. They also indicated that the learning environment was generally clean. This is an implication that teaching was carried out successfully. This findings agree with (Gurney, 2007) who noted that successful teaching and learning took place in school buildings that were safe, clean, quiet, comfortable and healthy.

**Figure 4.4: Trainees response on the location of the institutes**

Figure 4.4 represents trainees’ response on the location of the institutes. From the findings 63% of respondents indicated that the institutes were located in appropriate places. The findings of this study could imply that the learning environment is averagely maintained and could cause little or no health problems.
In support of this findings are the studies of Bhaw, (2005) which stated that, regardless of where the institution is located, a healthy environment is comfortable and secure from danger. It radiates a sense of well being and sends a caring message. This confirms the comfort that students require at any educational level in order to enhance participation.

4.6.1 Principals’ responses on influence of learning environment on trainees’ participation

The principals were asked whether the learning environment had influence on trainees, participation. The majority of the principals (75%) revealed that learning environment does not affect trainees’ participation. They indicated that the institutes were located in appropriate places, the learning environment was clean and quiet, they were adequate lighting in the institutes and most of trainees’ were able to adapt to the learning environment very fast. The implication of this result is that the trainees’ learning environment is conducive and successful learning was taking place. In support of this finding is the study by Lemaster et al (2009) who posits that if the students are comfortable the learning becomes easier. Being comfortable is a combination of several factors; adequate usable space, noise control, lighting, temperature and climate control and sanitation.
4.7 Influence of teaching personnel on trainees’ participation in Technical Training Institute

Teachers form a critical component of human resources in educational institutions because they play a fundamental role in provision of quality education. The study sought to establish the availability, adequacy and quality of teachers in technical training institutes. The findings of the study are given in Table 4.15.

Table 4.15: Trainees’ Response on Adequacy of teaching personnel

<table>
<thead>
<tr>
<th>Adequacy of teachers’</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>79</td>
<td>77.45</td>
</tr>
<tr>
<td>Yes</td>
<td>23</td>
<td>22.55</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.15 represents trainees’ response on adequacy of teaching personnel. From the findings 77.45% of the respondents indicated that the instructors were not enough. This implies that the trainees’ were left to study on their own since the instructors were not enough. The shortage of teaching personnel was also likely to be one of the causes of poor participation in technical training institutes in
Kajiado County. The availability of teachers services to students increases interaction which enables the students to be motivated and progress in their education.

The researcher also sought to establish whether there were instructors in all subjects taught in different courses and the findings were as follows;

**Table 4.16 Trainees’ response on availability of instructors in all subjects**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No teachers in some subjects</td>
<td>58</td>
<td>56.86%</td>
</tr>
<tr>
<td>There are teachers in all subjects</td>
<td>44</td>
<td>43.14%</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.16 shows trainees responses on availability of instructors in all subjects. The findings revealed that 56.86% of trainees’ respondents indicated that there were no teachers in some subjects. This implies that some subjects were not taught. The absence of teachers in some subjects could attribute to poor performance, high repetition and some students could opt to dropout.
Table 4.17: HODS response on availability of instructors

<table>
<thead>
<tr>
<th>Enough</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.17 shows the HODs response on the availability of the instructors. From the findings 85% of the respondents indicated that the instructors were not enough in their departments. The HODs revealed that the technical courses had acute shortage of instructors compared to their counterparts in non-technical courses. This implies that there was dire need for more instructors in the institutes. The shortage could have attributed to low retention rate and high repeater rate especially in technical courses.
Table 4.18: HODS response on instructors’ qualification on trainees’ participation

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No effect</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>Has effect</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.18 represents HODs responses on instructors’ qualification on trainees’ participation. From the findings 75% of the instructors indicated that the instructors’ qualification did not affect trainees’ participation. This implies that the instructors are highly qualified and are able to effectively carry out their professional responsibilities.

However 25% of the respondents indicated that the qualification of the instructors had an effect on trainees’ participation. The respondents revealed that some instructors lacked up-to-date necessary skills for training. The inability to acquire new skills could make the instructors not to transfer up-to-date skills to the trainees which in turn could lower trainees’ attraction to technical training institutes.
4.7.1 Principals’ responses on influence of teaching personnel on trainees’ participation

From the findings all the principals (100%) revealed that there was shortage of instructors in their institutes. The principals from government institutes revealed that they had employed part time instructors to reduce the shortage. They indicated that at times there were not able to pay the instructors promptly and this led to some leaving to better paying institutions. This implies that the trainees’ were left on their own to study. Absence of instructors was likely to affect trainees’ progression in their areas of study.

The principals’ respondents from private institutes revealed that they were allocating more contact hours to their instructors to reduce the shortage. This implies that the instructors were overloaded. The overloading of the instructors was likely to affect their performance in carrying out their professional responsibilities. This in turn could contribute to low participation of the trainees’. The principals further indicated that adequate teachers in the institutes enhance growth in knowledge and skills of the trainees’.
From all the four institutes visited the researcher made an observation with the help of the heads of departments on the availability and adequacy of the facilities in the institutes and the findings were as follows;

**Table 4.19: Observation checklist**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Availability</th>
<th>Adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop</td>
<td>√</td>
<td>Not adequate</td>
</tr>
<tr>
<td>Libraries</td>
<td>√</td>
<td>Not adequate</td>
</tr>
<tr>
<td>Classrooms</td>
<td>√</td>
<td>Not adequate</td>
</tr>
<tr>
<td>Laboratories</td>
<td>×</td>
<td>Not available</td>
</tr>
<tr>
<td>Tools and equipment</td>
<td>√</td>
<td>Not adequate</td>
</tr>
<tr>
<td>Furniture</td>
<td>√</td>
<td>Not adequate</td>
</tr>
<tr>
<td>Playground</td>
<td>√</td>
<td>Adequate</td>
</tr>
</tbody>
</table>

From the observation checklist all the facilities except laboratories were available but not adequate apart from the playground. This was an indication that physical facilities were likely the major contribution of low trainees’ participation in Kajiado County.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the research process briefly. This chapter also provides a summary of main findings of the study, conclusions and recommendations for further research.

5.2 Summary of the study

The study was to find out institutional factors influencing trainees’ participation in Technical Training Institutes in Kajiado County. The study was guided by four research objectives; To establish the extent to which physical facilities influence trainees participation in Technical Training institutes in Kajiado County. To determine the extent to which instructional materials influences trainees participation. To determine the extent to which learning environment influences trainees’ participation. To establish the extent to which teaching personnel influences trainees’ participation.

The study employed descriptive survey design. The study targeted 17 technical training institutes in Kajiado County. For this study, the target population was comprised of 17 principals, 80 HODs and 1200 trainees. The total target population was 1297. The sample for the study comprised of 4 principals, 20
HODS and 102 trainees. The total sample size was 126 respondents. Data was collected by use of questionnaires, interview schedule and observation check list was used to confirm the physical existence of physical training facilities. Pre-testing was done to gauge the clarity and relevance of instrument items.

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

Findings on the influence of physical facilities on trainees participation, the study revealed that majority of the respondents felt that the facilities were not adequate. Inadequacy of training facilities was majorly revealed to be as a result of high cost of construction, equipment, maintenance and the provision of consumable training materials. In adequacy of training facilities have implications of instructors training strategy development and the delivery of instruction. Workshops were inadequate in the institution as revealed by majority (75%) of the principals, 70%
Sixty five percent of the trainees revealed that equipped library was not available. This implies that training is not learner centered but trainer centered since they are the people viewed to be rich in knowledge as a result of scarcity on where to search for extra knowledge.

Findings on instructional materials revealed that the majority of the principals (75%), HODS (71.25%) and trainees (62.78%) were not satisfied with the instructional materials in their institute. The principal indicated that the cost of some the textbooks was very expensive making it hard for the institute to purchase and this left most of the trainees to rely on the instructors knowledge which could affect their performance in case of revision and clarification in the absence of a teacher.

Findings on the learning environment on trainees’ participation revealed that majority of the principals (75%), HODs (78%) and trainees (63%) were comfortable with their learning environment whereas a small number felt that the surrounding environment would affect their studies.

Findings on the extent to which teaching personnel influences trainees participation revealed 70%, 85% and 77.45% of the principals, HODS and trainees respectively revealed that the instructors were not enough and this had
effect on trainees’ participation this led to low enrolment of trainees in some courses.

5.3. Conclusions

The following conclusions were drawn from the research questions and the findings of the study. The study established that physical facilities influences participation, the study concludes that technical training institutes in Kajiado County have inadequate facilities like classrooms, desks, workshops, laboratories and libraries. This is evident because 80% of the HODS indicated that indeed laboratories were inadequate while 70% agreed that workshops were inadequate.

The other factor that affected the participation of trainees was inadequate instructional materials. In some institutions there were no textbooks or reference books for some subjects the instructors were using the materials, knowledge and skill they had acquired from various institutes they came from. This is evident because 71.6% of the trainees’ indicated that textbooks in their field of study were inadequate while 56.9% and 58.9% respectively indicated that equipment for training and raw materials for practical training were inadequate. This inadequacy in the provision of instructional materials led to focusing more on theoretical teaching leading to trainees lacking proficiency in their chosen fields of specialization.
On the matter of how learning environment influences participation, the study concludes that the learning environment affected a small number of trainees’ participation where 63% of the trainees indicated that the institutes were located in appropriate places. From the findings it was also noted that 85% of the HODs indicated that the institutes had inadequate instructors to the extent of adding extra contact hours to the instructors overloading them thus leading to low morale which could affect trainees’ participation.

5.4 Recommendations

In the view of the above findings of this study and conclusion drawn, the following recommendations were made:

- The availability of educational facilities and infrastructures is essential to improve participation in education. Thus, the management of TVET institutes should equip their institutions with the necessary physical facilities in terms of increasing the number of rooms, making the available workshops and laboratories fully functional and provide adequate and good furniture for the trainees’.

- The study also recommends that the institution mobilize stakeholders to assist in providing adequate teaching and learning materials, adequate
equipment and raw materials for training so as to address the challenge of theoretical training.

- The study also recommends that the institution improve the state of the learning environment by ensuring the rooms used for study are flexible enough to accommodate changing learning patterns and methods, well ventilated and clean.

- Adequate and qualified provision of teaching personnel to technical training institute should be made a key priority by National and County governments.

5.5 Suggestion for further studies

Based on the findings of this study, the researcher identified the following areas that should be explored as a basis for future research.

1. The researcher suggests that similar studies need to be done in other technical training institutes in other Counties so as to compare with the findings of this study.

2. Further research should be undertaken to examine strategies on how to increase enrolment in technical training institutes.
3. Further study can be undertaken to investigate how technical training institutes can be made more affordable to a majority of students who come from economically poor backgrounds.
REFERENCES

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Lemaster, (2009). *Teacher Attitude about Classroom Conditions*, *AJournal of Education Administration*


Technical, Vocational Education & Training Bill, 2012.


Appendix I: Letter of Introduction

University of Nairobi

Department of Education

Administration and Planning

P.O BOX 30197-00100

Nairobi

The Principal………………TTI

Dear Sir/Madam

REF: PARTICIPATION IN RESEARCH

I am a postgraduate student at the University of Nairobi, undertaking a master of Education course in Educational administration and planning. I am carrying out a research on institutional factors influencing trainees participation in public Technical Training Institutes in Kajiado County. The research is purely academic and the information provided in this research will be used in this research work only. I therefore request you to assist me achieve this goal by allowing me choose your institution as my study sample.

Thank you in advance.

Yours Faithfully,

Stella .W. Njoroge.
Appendix II: Questionnaire for Head of Departments

The questionnaire is designed to gather information on “institutional factors influencing trainees participation in Technical Training Institutes in Kajiado County.” You are kindly requested to fill the questionnaire as honestly as possible. Responses to these questions will be treated as confidential. Please tick [✓] where appropriate or fill in the required information on the spaces provided.

Section A: Personal information

1. Indicate your gender Male [ ] Female [ ]

2. For how long have you served as a head of department in this institute? 1-3 years [ ] 4-6 years [ ] 7-9 years [ ] Over 9 [ ]

3. What is your highest academic qualification?
P.hD [ ] M. Ed [ ] B. Ed [ ] B. Sc [ ] Dip. Ed [ ]

Section B: Physical facilities and trainees participation

The following facilities are important for the effective learning in an institution. By ticking (✓) the choice that best describes your opinion, indicate the degree to which the facilities are adequate in this institution, where 1= very inadequate; 2= inadequate; 3= moderately adequate; 4= adequate; 5= very adequate.
Facility | Level of adequacy
--- | ---
| 1 | 2 | 3 | 4 | 5 |
Workshops
Laboratories
Class rooms
Library

Section C: Instructional Materials and trainees participation

How do you rate the following statements as they relate to the availability of instructional materials? Please indicate by ticking the most appropriate Strongly agree (SA), Agree (A), Disagree (D) Strongly disagree (SD).

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are textbooks in all areas of study</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are reference books in all areas of study</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are equipment for training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials for practical training are always provided</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section D: Learning environment and trainees participation

8. Is the institution located in an appropriate place? Yes [ ] No [ ]
If No how does it affect students participation……………………………………
……………………………………………………………………………………………..
……………………………………………………………………………………………..

9. Are the classes in the institute conducive for learning? Yes [  ] No [  ]

Section E: Teaching Personnel and trainees participation

10. Do you have enough instructors in your department? Yes [  ] No [  ]
If No how do you enhance that the trainees do don’t miss instructors whenever they have lessons………………………………………………………………………………
……………………………………………………………………………………………..
……………………………………………………………………………………………..

11. Are the instructors trained in the areas they are handling? Yes [  ] No [  ]

12. Does the qualification of the instructors affect trainees participation? Yes [  ] No [  ]
Appendix III: Questionnaire for Trainees

The information given in this questionnaire will be treated with strict confidentiality.

Instructions

Please tick appropriately in box [ ] corresponding to your choices for structured questions.

Write the answers to the open ended question in the space provided.

SECTION A:

Personal Information:

1. Indicate your gender. Female [ ] Male [ ]

2. Indicate your age. 17-21 years [ ] 22-26 years [ ] 27 and above [ ]

3. Indicate level of study. Certificate [ ] Diploma [ ]

Section B: Physical facilities and trainees participation

9. The table below shows the influence of physical facilities on students participation, tick by rating using the scale 1-strongly Agree, 2-Agree, 3-Disagree, 4-Strongly disagree
There are adequate classrooms

There are adequate desks

There are adequate libraries

There are adequate workshops

There are adequate laboratories

### Section C: instructional materials and trainees participation

By ticking (✓) the choice that best describes your opinion, indicate the degree to which the instructional materials are adequate in this institution, where 1= very inadequate; 2= inadequate; 3= moderately adequate; 4= adequate; 5= very adequate.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment for training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textbooks in your field of study</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Reference books in your field of study</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials for practical training</td>
<td></td>
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</tbody>
</table>
Section D: Learning environment and trainees participation

8. Does the location of the institute affect your learning activities? Yes [ ] No [ ]

If yes how? ...........................................................................................................................
..............................................................................................................................
..............................................................................................................................

9. Are the classes conducive for learning? Yes [ ] No [ ]

Section E: Teaching Personnel and trainees participation

10. Do you have enough instructors in your institute? Yes [ ] No [ ]

11. Do you have a course you intended to take but there were no instructors? Yes [ ] No [ ]
Appendix IV: Interview guide for Principals

The purpose of this interview is to collect information on the institutional factors influencing trainees’ participation Technical Training institutes in Kajiado County.

Please respond to all items as fully as possible. All responses will be treated with confidentiality.

Section A: Personal information

1. How long have you served as a principal in this institute?

2. What is your academic qualification?

Section B

3. a) Are the physical facilities in the college adequate to accommodate all trainees?

b) If no, how do you manage the student numbers against the inadequate facilities to achieve maximum learning?

c) (i) Are your facilities/equipment technologically relevant for the current job market/industry?

(ii) If not, how do you ensure trainees acquire relevant hands-on skills for use after exiting the institute?

4. a) In your assessment, what is the level of adequacy of instructional materials existing in the institute?

b) How does this level influence the implementation of curriculum in the institute?
c) In your view, are the existing instructional materials effectively utilized?

5. Do you think that the learning environment affect students participation in the institute? Give reasons for your answer.

6(a) Does the institution have enough teaching staff to implement Technical Vocational Education and Training curriculum?

(b) If no, how do you ensure that the trainees do not miss their lessons?

(b).How do you rate your teaching staff in terms of qualification?
### Appendix V: Observation Checklist

<table>
<thead>
<tr>
<th></th>
<th>FACILITY</th>
<th>AVAILABILITY</th>
<th>ADEQUATE</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Workshop</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Libraries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Classrooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Laboratories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Tools and equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Furniture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Playground</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix VI: Tentative Research Schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>JAN</th>
<th>FEB</th>
<th>MARCH</th>
<th>APRIL</th>
<th>MAY</th>
<th>JUNE/JULY</th>
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</thead>
<tbody>
<tr>
<td>Identification of Research problem</td>
<td>1</td>
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<tr>
<td>Writing the Research Proposal</td>
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<tr>
<td>Handing in research for corrections</td>
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<tr>
<td>Defending the research proposal</td>
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<td>1</td>
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<tr>
<td>Piloting and revision of research instrument</td>
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<tr>
<td>Data collection</td>
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<tr>
<td>Data analysis and writing of draft report</td>
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<tr>
<td>Submission of final report</td>
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<td>1</td>
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</table>
# Appendix VII: Research Budget

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST</th>
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</thead>
<tbody>
<tr>
<td>Photocopy</td>
<td>5,500</td>
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<tr>
<td>Food</td>
<td>3,000</td>
</tr>
<tr>
<td>Administering questionnaires</td>
<td>7,000</td>
</tr>
<tr>
<td>To consult supervisor</td>
<td>2,000</td>
</tr>
<tr>
<td>Travelling</td>
<td>7,000</td>
</tr>
<tr>
<td>Pen and disks</td>
<td>3,000</td>
</tr>
<tr>
<td>Typing and printing</td>
<td>20,000</td>
</tr>
<tr>
<td>Subsistence allowances</td>
<td>4,000</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2,000</td>
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<tr>
<td>Total</td>
<td>52,500</td>
</tr>
</tbody>
</table>
Appendix VIII: Research Authorization Letter

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone +254-20-2213471,
2241349,331071,2219642
Fax +254-20-311245,338249
Email: dg@nacost.go.ke
Website: www.nacost.go.ke
when replying please quote

Ref: Na

NACOSTI/P/16/51969/11977

Stella Wambui Njoroge
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

Date: 6th July, 2016

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Institutional factors influencing trainees participation in Technical Training Institute in Kajiado County,” I am pleased to inform you that you have been authorized to undertake research in Kajiado County for the period ending 5th July, 2017.

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

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kajiado County.

The County Director of Education
Kajiado County.
Appendix IX: Research Permit

THIS IS TO CERTIFY THAT

MISS: STELLA WAMBUI NYOROGO
of UNIVERSITY OF NAIROBI, 36-902
nderu, has been permitted to conduct
research in Kajiado County

on the topic: INSTITUTIONAL FACTORS
INFLUENCING TRAIINEES PARTICIPATION
IN TECHNICAL TRAINING INSTITUTE IN
KAJIADO COUNTY

for the period ending:
5th July, 2011

Applicant’s Signature

Permit No: NACOSTI/P/16/51969/11977
Date of Issue: 6th July, 2011
Fee Received: KSh 1000

CONDITIONS:

1. You must report to the County Commissioner and
the County Education Officer of the area before
embarking up your research. Failure to do that
may lead to the cancellation of your permit.

2. Government Officers will not be interviewed
without prior appointment.

3. No questionnaire will be used unless it has been
approved.

4. Excavation, mining and collection of biological
specimens are subject to further permission from
the relevant Government Ministries.

5. You are required to submit at least two (2) hard
copies and one (1) soft copy of your final report.

6. The Government of Kenya reserves the right to
modify the conditions of this permit including
its cancellation without notice.

RESEARCH CLEARANCE PERMIT

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

2011

Serial No. A100004

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

CONDITIONS: see back page