

**INSTITUTIONAL FACTORS AND THE ACQUISITION OF  
EMPLOYABLE SKILLS AMONG STUDENTS IN TECHNICAL,  
VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN  
KILIFI COUNTY, KENYA**

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**A Research Proposal Submitted in Partial Fulfillment for the Requirements  
for the Award of the Degree of Masters of Education in Curriculum Studies**

**University of Nairobi**

**2020**

## DECLARATION

This project report is my original work and has not been presented in any other university for the award a degree.

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## **DEDICATION**

This Research Project is dedicated to my mother Janet Mbula Mukiti.

## **ACKNOWLEDGEMENT**

I thank the Almighty God whose interminable grace and favor have permitted me complete the project efficaciously. Similarly, my reposes go to my supervisors Dr. Lucy Njagi and Mr. Edward Kanori for the unwavering incessant guidance and feedback for the accomplishment of this project. I further extend my appreciation to all my lecturers in the department of educational administration and planning at the University of Nairobi for their input, which was a springtide of illimitable motivation.

I am exceedingly indebted to my family members for their understanding, open-mindedness, fortitude, and reassurance during the study duration; my mother Janet Mbula. Importantly, my appreciation goes to the principals, teachers, graduates, and students of the Technical Training Institutions in Kilifi County for their valuable backing, aid, and most princely the cooperation they showed during the collection of data.

Thank you. Glory to the almighty God.

## ABSTRACT

The main purpose of the study was to investigate institutional factors and the acquisition of employable skills among students in technical, vocational education and training institutions in Kilifi County, Kenya. Four objectives guided the study: To determine the relationship between courses offered in TVET colleges and acquisition of employable skills among students in Kilifi County, to establish the relationship between training and learning resources and students' acquisition of employable skills at technical and vocational education and training institutions, to examine the influence of training pedagogy on students' acquisition of employable skills, to assess the relationship between the trainer's qualifications and students' acquisition of employable skills at technical and vocational education and training institutions. The study adopted descriptive survey design. The target population of the study was 2564 from one TVET institution and 14 vocational colleges in Kilifi County. This comprised, 14 principals, 200 instructors, 1200-second year finalist trainees, and 1150 graduates. A sample size of 300 was picked consisting of 5 principals, 60 instructors, 120 second year finalist trainees, and 115 graduates as the respondents. Stratified random, purposive, and simple random sampling was employed. Piloting was done in related institutions and person product was used to calculate the coefficient of correlation to ensure the reliability of the research instruments. Data was analyzed using Statistical Package for Social Sciences, descriptive and inferential statistics was computed and data presented using frequency tables and percentages. The key study findings revealed that there was a significant relationship between courses offered in TVET and vocational colleges and student's acquisition of employable skills. The study further revealed that the courses offered were relevant to the job market while career guidance and counseling was not effectively structured resulting in disinterest in the training and fairly low enrollments. The findings also revealed that there was a critical relationship between training resources and facilities and student's acquisition of employable skills. Institutions have derisory training resources and facilities and lacked technologically modern equipment to those used in industries. The study significant relationship between training pedagogy and teachers' qualifications and trainee's acquisition of employable skills. The findings further show that teachers were quite qualified and needed professional development while trainers mainly use experimentation, lecture, and project methods due to inadequate facilities. The study concluded that the institutional factors expressively had a significant relationship on trainees' acquisition of employable skills such as professionalism, personal qualities, creativity, and problem-solving skills to match the labour market demands. It was recommended that the government and directors of TVET and vocational institutions should partake in providing modern and adequate training facilities and equipment, career guidance and counseling services should be adequately provided. More so trainers should have frequent industrial attachments and attend TVET workshops to upgrade their skills for the impartation of employable skills, instructors should use trainee-centered methods like work-based learning, case study, and problem-based approach to inculcate employable skills necessary in the labour market.

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## **ABBREVIATION AND ACRONYMS**

GoK	Government of Kenya
ICT	Information and Communications Technology
KICD	Kenya Institute of Curriculum Development
NACOSTI	National Commission for Science, Technology and Innovations
RoK	Republic of Kenya
SPSS	Statistical Package for Social Sciences
TVE	Technical and Vocational Education
TVET	Technical and Vocational Education and Training
UNDP	United Nation Development Program
UNESCO	United Nations Educational Scientific and Cultural Organization
VET	Vocational Education and Training
NITA	National Industrial Training Authority

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Background to the Study**

The realization of Kenya's Vision 2030 is affixed on various pathways among which is the provision of quality education and training through Technical and Vocational Education and Training (TVET). Effective human capital development can be achieved through vocational training for empowering a technical labor force for quick industrialization and national development (Afeti, 2014; the Republic of Kenya, 2015).

Technical and vocational education plays a key role in churning out skills that are needed in all sub-sectors of the economy and is aimed at confronting challenges in accessing education, training, and employment among the youth. (Afeti, 2014). Nonetheless, the prominence of the sector in impelling economic growth, concerns of derisory pedagogically proficient teachers, obsolete training facilities and equipment, limited teaching and learning materials, and outdated curriculum need to be re-examined to warrant the realization of the TVET goals (Republic of Kenya 2012). The aforementioned setbacks result in the poor linkage between industry and academia causing incongruity and mismatch between the supply of skills and the labour market.

Fundamentally, TVET can be defined as a specialized education designed to empower students to attain hands-on skills, expertise, and understanding the prerequisites for employment in a particular occupation (Atchoarena, Delluc, &

Bird, 2002). Notably, Bernnett, (2002) designates that labour oriented skills enable trainees to acquire appropriate employment opportunities. Similarly, Yorke (2010) stipulates that employability is a set of skills that compel graduates to acquire employment. Likewise, holistically trained graduates increase their employability when employable and work-ready skills are instilled in them (Sachs, Rowe, & Wilson, 2017). Nonetheless, there is always a mismatch of the acquired skills, and the labor market demands posing a challenge of joblessness among the graduates (Akplu and Amankara, 2010; Murgor, 2013).

Globally, the imperativeness of TVET in rapid social and technological transformation cannot be gainsaid and remains a conjoint development strategy for international governments and agencies (Neal, 2011). For instance, recently developed countries such as Hong Kong, Singapore, and South Korea ensure that their education is in tandem with economic growth. Likewise, TVET training in Germany encompasses 80 percent of industrial instruction and 20 percent of learning in training institutions to furnish learners with germane employable skills. Correspondingly, Alcove and Arnstei (2007) affirm that Germany, Australia, and Japan have used TVET to address the problem of youth unemployment by equipping them with vocational skills and knowledge.

In Africa, Afeti (2014) and Ngcwangu (2015) reported that TVET is becoming increasingly significant with various Poverty Reduction Strategy documents (PRS) produced by governments and the World Bank reflecting the commitment to technical and professional education and training after many years of neglect. A study conducted by Akpomudjere (2019) indicates a lack of

qualified staff as a serious impact on the quality of education in Nigeria. In the same vein, Dasmani (2011) postulates that insufficient training materials, outsized classes incongruous pedagogies, obsolete facilities, and frail industrial linkage lead to inadequacy in employable skills among the graduates.

Quality education is strongly dependent on the quality of teachers, a function of their knowledge and mastery of subject content, appropriate teaching methods, and professional values; all of which are improved by continuous professional development (Postholm, 2012). Indeed, TVET teachers must be competent in the content and knowledge of their fields, possess hands-on experience in their trade, and have pedagogical competencies to present that content and its application in forms that are comprehensible and appropriate to their trainees. Correspondingly, the quality of TVET teachers in South Africa is contemptible due to a lack of regular acquaintance with practically oriented industries to keep abreast with modern technological developments (Maeko and Makgato (2014).

Outstandingly, the nature and dynamics of TVET call for an industrial-based pedagogical approach or applications if the needed results must be achieved. Supporting this, Chukwumerijeh (2011) postulates that a critical mass of skilled workforce is the groundwork of the economic and social stability of any country. Moreover, no country can produce the technical manpower required for effective industrialization when the industrial personnel is trained outside the correct pedagogical approach. Thus, Obiekezie and Onyechi (2010) agreed that the key driver toward industrialization is when technical education is given the



appropriate skill and competencies which is achievable through an updated curriculum and appropriate pedagogical approach. It is in this light that the training strategies used in TVET training aid trainees' acquisition of employable skills.

In Kenya, the most imperative objective of TVET is to offer trainees the opportunity to explore their practical propensities. Kerre (2017) points out that TVET trainees need to develop employable skills and to gain perspective technology which enables them to become more operative and informed members of society. In this regard, emphasis on TVET can be attributed to the majority of the youth (60%) found in rural areas and due to scarce resources, they migrate to towns to seek scarce job opportunities (GoK, 2012). TVET has proved to be an operative avenue to reducing youth vulnerability to crime to eke out for a living (Muthee and Scholar, 2010).

Filmer and Fox (2014) establish that despite the praise and efforts directed to TVET, arguments still surround its purpose and efficacy in spurring economic growth, development, and poverty mitigation. Notably, TVET has failed to provide well qualified skilled labour to drive the development process in Africa (UNESCO, 2012). Likewise, the history of TVET in Kenya has in many ways been characterized by conflict and controversy, always with minimal achievements.

The TVET sector continues to face many setbacks which include but are not limited to an inadequate number of pedagogically incompetent trainers, an insufficient number of TVET colleges, limited up to date training and learning

resources, limited industrial attachments for trainers and students and a theory-based curriculum (GoK 2015). Furthermore, the World Bank (2015) reported that the curriculum used in TVET institutions lacks connection to the labour market hence jeopardizing the development agenda. The aftermath is a pool of graduates with irrelevant market skills not needed by employers. It is therefore prudent to inculcate employable competencies in the training of students in TVET that will heighten the autonomy of the graduates.

Relevant and modern training equipment is a prerequisite for trainees' acquisition of employable skills. However, Maingi (2019) pointed out the deficiency of modern training resources in TVET as impediments to the acquisition of employable skills. A study by Njoki (2014) in Nairobi City County further revealed that the majority of TVET institutions had inadequate teaching and learning resources. In the same vein, Anindo (2016) revealed that in Nairobi County, the majority of the institutions lacked up-to-date training equipment which sabotaged skill acquisition.

Vocational training institutions in Kenya are devolved thus controlled by county governments. The Kilifi County government has one public TVET institution and many accredited privately owned vocational colleges. Notably, the county government supports the institutions through the allocation of funds for training facilities and scholarships for teachers and bursaries for students. Nonetheless, the current state of TVET in Kilifi County is questionable with a dearth of recruitment of trainees, high dropout rates, and increased levels of unemployment among the graduates (Kilifi County Education report 2018).

Prominently, joblessness, poverty, and poor socio-economic status of most youth in Kilifi have generated an outcry of many parents, government bodies, and international organizations and this calls for instant solutions by equipping the youth with employable skills for self-reliance (Kilifi Youth Department, 2018). Besides, studies by Anindo (2019), Yewah (2014), and Maingi (2019) recommend further studies on TVET in other counties to ensure effective students' acquisition of skills. Therefore, the study examined institutional factors influencing trainee's acquisition of employable skills to circumvent issues of mismatch in the job market which will be a panacea to youth unemployment in Kilifi County.

### **1.1 Statement of the Problem**

The future industrial, productivity and economic growth of a country depend on its youth who possess the knowledge, skills, and positive attitudes (Bartel, Figas, & Hagel, 2015). For Kenya to leap forward to social-economic development, a critical mass of well-qualified technicians, engineers, craftsmen, and artisans must be trained effectively (the Republic of Kenya, 2015). Technical and vocational education aims at mitigating graduate redundancy and at the same time offers an alternative pathway for the attainment of employable skills (Kerre, 2011). However, despite reviving and revitalizing the TVET colleges in Kenya and Kilifi County in particular, there is still the challenge of unemployed youths and incompetent graduates (Youth Department Kilifi, 2015).

According to Kilifi County Director, Vocational Education report (2018), the level of skills possessed by vocational education trainees for employment has

been a worrisome issue in Kilifi. Graduates are termed as half –baked and unproductive without further training. Therefore, to address these problems of lack of employable skills and unemployment of TVET graduates, there is a need to examine institutional factors that influence student acquisition of employable skills in TVET institutions in Kenya and especially in Kilifi County. Existing local studies have focused mainly on challenges facing the acquisition of employment skills and do not explicitly interrogate factors impinging the acquisition of employable skills. It is against this backdrop that the researcher investigated the institutional factors and the acquisition of employable skills among students in TVET institutions in Kilifi County.

### **1.2 Purpose of the Study**

The purpose of the study was to investigate institutional factors related to the acquisition of employable skills among technical, vocational education and training students in Kilifi County, Kenya.

### **1.3 Objectives of the Study**

The study sought to achieve the following objectives:

- i. To determine the relationship between courses offered in TVET colleges and acquisition of employable skills among students in Kilifi County.
- ii. To establish the relationship between training and learning resources and students' acquisition of employable skills at technical and vocational education and training institutions in Kilifi County.

iii. To examine the relationship between training pedagogy and students' acquisition of employable skills at technical and vocational education and training institutions.

iv. To assess the relationship between the trainer's qualifications and students' acquisition of employable skills at technical and vocational education and training institutions.

#### **1.4 Research Questions**

The study was guided by the following questions:

i. What is the relationship between the types of courses offered in TVET colleges and the acquisition of employable skills among students in Kilifi County?

ii. What is the relationship between training resources and facilities and students' acquisition of employable skills at Technical, Vocational Education, and Training Institutions in Kilifi County?

iii. What is the relationship between training pedagogy and the acquisition of employable skills by students at Technical and Vocational Education and Training Institutions in Kilifi County?

iv. What is the relationship between trainers' qualifications and the acquisition of employable skills among students at Technical and Vocational Education and Training Institutions in Kilifi County?

### **1.5 Significance of the Study**

The findings of this research would contribute to the quality of TVET curriculum development, and in the determination of the relevant study courses in terms of providing students with skills and knowledge required in the world of work. The findings may also be used as a tool to provide instructors to master their teaching practices that will expedite the acquisition of employable skills by students in TVET institutions. Finally, the findings of the study might also furnish the TVET stakeholders with information geared towards reviewing the curriculum, providing instructional facilities and equipment that will aid students' acquisition of employable skills.

### **1.6 Limitations of the Study**

Limitations are those situations outside the control of the researcher that may affect the conclusions of the study and their relevance to other circumstances (Best and Kahn, 2004). The researcher was not able to manage the attitude of the respondents which would impact the cogency of the data obtained. Thus the researcher urged the respondents to give candid replies to be used for research considerations only. This was because access or subject views only was possible if confidentiality was assured.

### **1.7 Delimitations of the Study**

The study was conducted in one public TVET institution and private vocational colleges in Kilifi County. This was because public vocational training institutions and private vocational colleges are largely analogous in administration as

stipulated in the legal documents as enlisted by the Ministry of Education, Kilifi County. The reason for choosing Kilifi County is due to the high levels of youth unemployment and alarming poverty levels despite the government's efforts to revitalize the TVET sector.

The target population included principals, trainers, second-year students drawn from the institutions and recently employed graduates to satisfy the need for diversity and heterogeneity. The graduates were considered to evaluate their acquisition of employable skills and the match with the labour market demands. For manageability purposes, the study was delimited to vocational training in the TVET institutions Kilifi County.

### **1.8 Assumptions of the Study**

The study was based on the assumptions that;

- i. The respondents would be truthful and precise in giving information upon which the study findings and recommendations were grounded.

### **1.9 Definition of Significant Terms**

The following definition of terms applied to this study:

**Employable skills** refer to those basic skills that are relevant to employment and desired by the industry such as cognitive, affective, and psychomotor capabilities

**Employable** infers possessing the potentials required to hold employment and advance in the workplace.

**Institutional factors** refer to facets inside the institutes that influence the acquisition of practical skills.

**Employable skills** are those cognitive, affective, psychomotor, teachable, and basic skills necessary to get, keep, and succeed in a regular job along with flexible and dynamic employer demands (Mohd, 2012).

**Training facilities** refer to physical facilities, tools, and equipment, as well as teaching and learning resources, deemed necessary for the acquisition of vocational skills.

**Skill gap** refers to the type of skill acquired that is dissimilar from that needed to satisfactorily accomplish the work.

**Vocational education** refers to education meant to furnish trainees skills for jobs in selected employments.

### **1.10 Organization of the Study**

This study report is organized into five chapters. Chapter One covers the background to the study, statement of the problem, the purpose of the study, research objectives, research questions, significance of the study, limitations of the study, delimitations of the study, significance of the study, definition of significant terms and organization of the study.

Chapter Two entails literature review from various sources to support the rationale of this study. It comprises of introduction, the concept of employable skills, courses offered and the acquisition of employable skills, training and



learning resources and acquisition of employable skills, influence of teaching pedagogy and acquisition of employable skills, the influence of trainers qualifications and acquisition of employable skills, summary of literature review, theoretical and conceptual frameworks.

Chapter Three of introduction, research design, the target population of the study, sample size and sampling procedures, data collection procedures, data collection instruments, the validity of instruments, reliability of the instrument, data analysis techniques, ethical considerations, and definition of terms. Chapter four encompasses data interpretation and discussion. Chapter Five consists of a summary of the findings, conclusions, recommendations, and suggestions for further study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Related literature is reviewed under the following headings, the concept of employable skills, influence of courses offered on student's acquisition of employable skills in TVET, the influence of training and learning resources on the acquisition of employable skills in TVET, the influence of training pedagogy on the acquisition of employable skills and influence of trainer's qualification on student's acquisition of employable skills. Summary of literature, conceptual, and theoretical frameworks are also be included.

#### **2.2 The Concept of Employable Skills**

Employable skills are a group of competencies that enable people to get, to keep, and to prosper in the workplace; including set work skills and work habits, interpersonal skills, learning, thinking, and adaptability skills (National Centre for Vocational Education Research (2008). Similarly, Rowe and Zegwaard, (2017) refer to employable skills as work- readiness skills. They include; interpersonal skills, critical thinking skills, communication skills, numeracy and literacy skills, teamwork, theoretical and practical knowledge, decision, making skills, responsibility, and dependability (Aman, 2014).

According to UNESCO (2010), the panacea to the rampant youth unemployment is the inculcation of employable skills among the graduates. In this view, TVET programs are pivotal in furnishing skills required to improve access

to employment opportunities. Notably, competence, interpersonal skills, and personal characteristics significantly influence the employability of individuals by increasing the knowledge of employees after training (Sail and Alavi (2009) and Nilsson, (2010).

Moreover, Robes (2012) argues that employable skills should continually be developed through practical application in the everyday life of the trainees and at the workplace. This study will seek to unveil the courses that are deemed to make graduates employable by possessing the potentials required to preserve employment and advancement in the workstation.

### **2.3 Types of Courses Offered at TVET and Vocational Colleges and Acquisition of Employable Skills**

Courses offered in TVET are very crucial to aid student's acquisition of employable skills. In Tanzania, Munishi (2016) carried out a study on the factors contributing to the lack of employable skills among TVET graduates. The study showed an ineffective curriculum as a key impediment to skills acquisition. The study recommended a review of the courses offered to make them appealing to the students. Corroborating this study, Nkwame (2015) in Tanzania opined that the curriculum in vocational and technical institutions has failed to shape the training in tandem with the requirements of the employers.

In Nigeria, Ajobola (2012) points out that trainees' poor aspiration in TVET institutions has been fuelled by theory-based courses with little practical orientation. He further opines that the poor perception about TVET training is

fuelled by low qualification requirements for admission to pursue the courses offered which are viewed to be for the less academically endowed. In agreement, Sarimah and Sale (2019) in Nigeria also point out that the TVET curriculum has not been integrated with employable skills contributing to half-baked graduates.

In Kenya, Muya (2016) opines that the TVET sub-sector lingers in inflexible and outdated curriculum content leading to a discrepancy between skills learned and skills demanded by the employers. The study recommended a revision of the curriculum by TVET and KICD to align the course content with the labour market needs. Corroborating this study, Maina (2014), Orangi (2014), and Kisilu (2016) reported the need for TVET institutions to devise a labour market responsive curriculum by incorporating the industry to warranty jobs for TVET trainees. It is in this perspective that joblessness will be diminished.

The importance of guidance and counseling cannot be gainsaid in public or private employment services. According to Njoki (2014), career guidance could help make TVET more appealing by refining the educational offer and aggregating links between TVET and the employer. Similarly, Changilwa (2016) and Assefa (2019) revealed that enriching guidance and counseling programs for trainees is pivotal for the success of TVET and recommends the institution of the program to ensure that trainees make informed decisions.

The above-cited studies on courses offered have been conducted in public TVET institutions in other regions. The current study will comprehensively examine both public and vocational colleges in Kilifi County. Moreover, most of the studies have failed to cite whether the courses offered influence the

acquisition of employable skills by trainees. The current study will seek to fill the gap examining deeper the courses offered in TVET and the perceptions and readiness of the trainees to the job market in Kilifi County.

#### **2.4 Training and Learning resources and Acquisition of Employable Skills**

The acquisition of employable skills can only be realized where training facilities and equipment are adequate and relevant. Bybee & Loucks-Horsely (2000) alludes that the availability of appropriate workshop facilities augments trainee's impartation and building of skills by involving them in demonstrations. International discourses have cited the inadequacy of training facilities as an impediment to trainee's acquisition of employable skills in TVET institutions.

In Nigeria, Adebisi (2015), Akpomudjere (2019), Ayomnike (2016), Chukwumaijem (2015), and Edokpolor and Dumbiri (2019) postulate that one of the key impendent among TVET educators is obsolete workshops, equipment, and inadequate instructional materials. likewise, according to Udofia et.al. (2012) there exists a substantial correlation between the acquisition of employable skills and the availability of workshop equipment. Therefore, the implementation of TVET programs in any country requires the adequate provision of workshop tools, equipment, and machines.

In Ghana, Chichioke and Tambari (2017) investigated the challenges facing technical institute graduates in practical skills acquisition. Adopting a descriptive survey, the study indicated that inadequacy of instructional materials and training facilities contributed to the ineffectual impartation of skills among

the students. Correspondingly, Amedorme (2013) pointed out a lack of training facilities as a hindrance to skill acquisition among TVET graduates and recommends improvement of training facilities in the institutions by the relevant stakeholders.

In Ethiopia, Assefa (2019) investigated the challenges faced in the delivery of technical training for micro and small enterprises. The findings revealed a shortfall of training facilities, derisory ICT facilities coupled with the absence of adequate maintenance of equipment and machinery as among the restraints to the realization of the TVET goals of practical training in selected public institutions.

In Kenya, Achieng (2014), Anindo (2018), Barasa and Kwasira (2019), Bwisa (2014,) and Yewah (2015) opined that TVET institutions operate with inadequate workshop facilities, tools, and obsolescent equipment. This scenario compromises the relevance of skills acquired because almost all the training facilities used in the institutions do not conform to equipment in the industries and workplaces. The above studies recommend the modernization of training equipment in vocational training colleges. However, the studies fail to establish whether training facilities influence the acquisition of employable skills by graduates thus the need for the current study.

The aforementioned studies having been done in public TVET institutions have provoked the researcher to examine whether the sufficiency of training resources also applies to vocational and technical institutions in Kilifi County. Notably, other studies have concentrated on practical skills acquisition by

graduates of technical institutes. In divergence, this study will seek to provide an all-inclusive view of the institutional factors thwarting trainee's acquisition of employable skills entirely as divergent to examining a single facet of the curriculum in vocational colleges in Kilifi County.

### **2.5 Training Pedagogy and Acquisition of Employable Skills**

A good teaching pedagogy for the acquisition of vocational skills must bring out innovation and make the lesson a trainee-centered activity (Okoye, 2010). Moreover, Yinusa, (2014) opined that in terms of employable skills acquisition, institutions should use training methods that bring out the manufacturing process and exploration of materials into a classroom situation.

Studies conducted on training strategies in TVET and vocational colleges have indicated high teacher inclination to teaching theoretical over practical features of the TVET subjects. In Nigeria Akpomudjere (2019), and Ovwiroro (2019) revealed that the bottlenecks to imparting employable skills among trainees are caused by the trainer's poor training strategies and use of lecture methods in a programme that demands demonstration. The studies recommend the use of appropriate teaching strategies in teaching vocational education subjects.

Contrarily, Odo (2012) showed that the training methods adopted by the teachers of vocational education in Nigeria included; demonstration, field trip, project experiment, and assignment. These techniques have been identified to be effective in especially teaching practical oriented subjects. The study by Odo (2012) corroborates with the findings of Tumba and Shuaibu (2016) which points

out demonstration, assignment, and apprenticeship strategies as much suitable for augmenting acquisition of employable skills by students in TVET institutions.

In Ghana, a study by Audu, (2014) on the assessment of the teaching methods that influence the acquisition of practical skills affirms that the most appropriate training methods to enable trainees acquisition of skills include, field trip, context-based learning, discussion demonstration, work-based learning (attachment), simulation and problem-based learning (project work).

In Kenya, Sang, Muthaa, & Mbugua, (2012) establish that the lecture method is mostly used by trainers and is majorly theory-based and teacher-centered and neither equips the students with employable skills. Likewise, Karemu and Gongera (2014) and Changilwa (2016) point out that TVET has lost its relevance due to the dearth of up-to-date facilities, archaic technology, and deficient training equipment and facilities for instructors and trainees which affects adversely the choice and use of training pedagogies employed by instructors.

Conflicting to the above findings, Mwaura and Mwangi (2015) reveal that instructors training in the automotive diploma course used a combination of demonstration, project work, and lecture methods ensuring quality training amid imbalanced training facilities. On the same disposition, a study by Anindo (2018) in Nairobi City County indicated that the majority of the instructors often use lecture, demonstration, and discussion methods compelled by outsized classes and deplorable training equipment. Tellingly, the importance of trainee-centered pedagogies cannot be contravened in TVET institutions. Trainers should be



encouraged to use different appropriate training methods to enhance skill acquisition by trainees.

## **2.6 Trainers Qualifications and Acquisition of Employable Skills**

International Labour Organization ILO (2012) reports on indicators of quality in education in TVET highlighted that, the measure of the quality of the training in TVET institutions is determined by the effectiveness of the programmes, and demonstrates unerringly what transpires in the workshops and classes. Therefore, the need arises to consider the educational background and training of instructors as a proxy for excellence in TVET and vocational colleges.

In Nigeria, Ovwiroro (2019) pointed out that majority of the TVET instructors experience difficulty in transferring theoretical concepts into practical and recommend industrial training for trainers. Despite the findings, the above study failed to explore whether the effect of teachers' professional qualifications on trainee's acquisition of employable skills. Thus the current study will investigate the influence of trainers' professional qualifications on student acquisition of employable skills in Kilifi County.

Munishi (2016) conducted a study on factors contributing to a lack of employable skills among technical and vocational education (TVET) graduates in Tanzania. The findings revealed that incompetence among graduates fundamentally emanates from poor training resulting from incompetent and unqualified trainers.

In Kenya, Anindo (2016) and Maingi (2019) found out that most of the TVET instructors had a Diploma and a Master's degree as their highest academic qualifications. The findings also indicated that TVET trainers had the necessary minimum qualifications to teach in TVET programmes. However, most of them had not attended professional training to expose them to new skills in the labour market. Notably, the studies further revealed that majority of the trainers ratified that the academic qualification of teachers expressively impacts the acquisition of employable skills by students. However, the studies focused on public institutions, the current study will seek to gain a deeper insight into both public and private TVET colleges in Kilifi County.

## **2.7 Summary of Reviewed Literature**

The literature review involved studies at international, regional, and national levels that have focused on institutional factors influencing trainee's acquisition of employable skills. The institutional factors are fundamental in defining the acquisition of practical skills by graduates. Kisilu (2016), Maina (2014), Muya ((2016), and Orangi (2014) reported that most TVET courses are labour market irresponsible and curriculum review is pivotal.

Moreover, studies by Akopomudjere (2019), Amedorme (2013), Anindo (2016), Ayomnike (2014), Bwisa (2014), Chukwumaijiem (2015), Dasmani (2011), Njoki (2014), and Yewah (2015) showed that TVET institutions had inadequate training facilities that compromised the quality of skills acquired by trainees. However, these studies did not uncover the influence of the availability of

training facilities such as power (electricity) and furniture on the acquisition of vocational skills by trainees in TVET colleges.

The reviewed literature on training methods particularly in Africa countries designated that majority of the institutions have embraced teacher-centered approaches as opposed to concrete strategies (Odo (2012), Akpomudjere (2019), Tumba and Shuaibu (2016), Audu (2014) and Ovwiroro (2019). Thus the current study will seek to identify any concordances or discrepancies with the findings factoring in the distinguishing components between public and private vocational training institutions.

ILO (2012) postulates that quality training depends on the quality of trainers in TVET colleges. As opined by Anindo (2016), Maingi (2019), Munishi (2016), Ovwiroro (2019), and Yewah (2015) and most of the trainers possess prerequisite academic qualifications but lack industrial training and experience to obtain technology transfer and practical skills exposure. The studies revealed the importance of in-servicing TVET trainers often. However, the studies failed to establish whether the trainers had ICT skills. Moreover, the studies failed to examine the impact of trainer's professional skills in imparting job skills on trainees.

Finally, based on the literature reviewed, the findings were quite informative, though none focused on institutional factors influencing the acquisition of employable skills among students in TVET institutions in Kilifi County. Therefore, this research intends to fill this gap.

## **2.8 Theoretical Framework**

The study will be anchored on the functional context theory by Thomas Sticht (1975) and the human capital theory by Schultz, (1961) and Becker, (1964). Thomas Sticht presupposes learner's ability to relate to knowledge already possessed and transform old knowledge into new knowledge is facilitated by learning of new knowledge. The transfer of learning from the classroom to the "real world" will be enhanced by the using of materials and equipment that the learner will use after training. The functional context theory will be relevant in this study in that trainers have to design and use tools, materials, equipment, and training pedagogies that match what the students are learning. Importantly, instructors' qualifications are pivotal in training if trainees are to acquire employable skills. Therefore, TVET institutions need to ensure a conducive training setting equivalent to the work setting in order for the competencies attained by trainees will gain relevancy to those imperative to the employers.

The human capital theory by Schultz (1971) and Becker (1994) repose on the presumption that conventional education and training is exceptionally effective in improving the productive capacity of people and investing in skills and education enables one to climb the career ladder and should lead to greater value in the marketplace. This theory serves as a basis for scrutinizing the employability of TVET graduates. Becker's tenets will be partly used to complement this study and are relevant and applicable in that skills training improves trainee's chances for employment and have a positive impact on economic development.

Moreover, Schultz (1961) argues that training leads to improved work skills and increases the employability of individuals. Importantly, Skills and knowledge obtained from education and training are a form of capital embodied in a trainee thus students must choose vocational and technical courses in relation to the job market demands. Using an updated curriculum and proper career guidance students will make their career choices diligently to avoid a mismatch between education, training, and labour market requirements.

## 2.9 Conceptual Framework

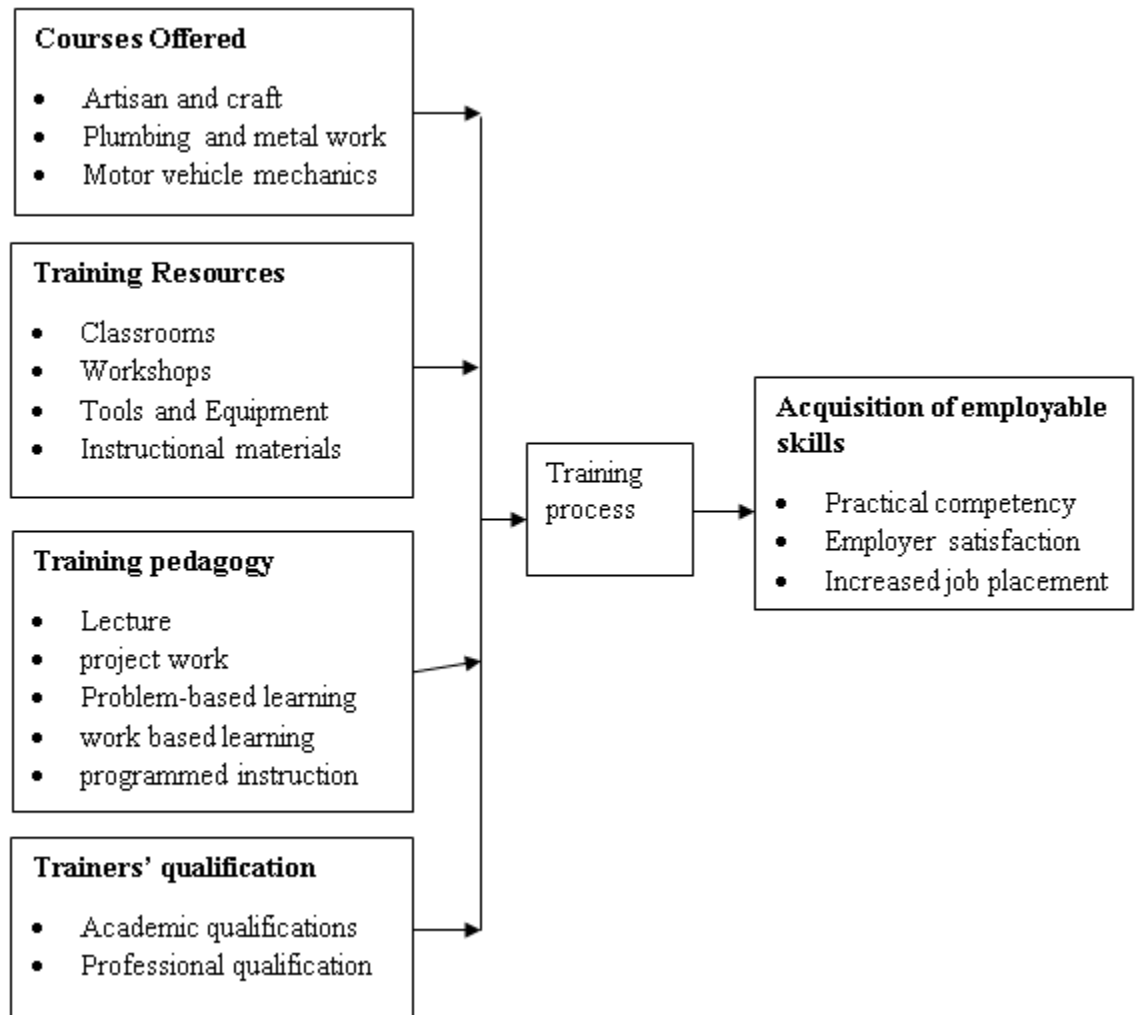


Figure 2: 1: Conceptual framework on the interaction of variables

The institutional factors are indicated through courses offered, training facilities, training pedagogy, and trainer's qualifications. The utmost influence of institutional factors is point out through the efficiency of trainees in TVETs and vocational training colleges. In this particular case, therefore, institutional factors served as training inputs and trainee's acquisition of employable skills in the vocational training centers was the training output, which was persuaded by the state of institutional factors. For example, where conducive Institutional factors prevailed then it implied remarkably proficient graduates at the culmination of the training course

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter contains the methodology for data gathering and analysis that was used in the study. It is organized along with the following subsections: research design, target population, sample size and sampling procedure, data collection instruments, validity of instruments, instrument reliability, data collection procedure, data analysis techniques, and presentation and ethical considerations that were considered in the study.

#### **3.2 Research Design**

According to Kumar (2019), a research design is a plan, structure, and strategy of investigation to find answers to the research questions through collecting, measuring, scrutinizing, and analyzing data. The study adopted a descriptive survey research design to gather information by making inquiries on individual views the influence of institutional factors on the acquisition of employable skills by trainees. Moreover, Cooper and Schindler (2008), assert that a descriptive survey research design is focused on discovering what, where, and how of a phenomena. This aided the researcher to establish and describe the institutional factors in TVET institutions. The purpose of adopting a descriptive research design is that it describes the state of situations and things, as they exist currently. The researcher never altered any of the variables.

### 3.3 Target Population

According to Kumar, (2019), all individuals or cases under consideration in any field of inquiry constitute a universe or targeted population. The target population of this study encompassed one public TVET college and 13 privately owned vocational institutions in Kilifi County. The study focused on the total population of 1714 respondents from the 14 TVET colleges. That is 1200 second-year students in various courses, 200 tutors, 14 principals, and 1150 graduates who left the colleges between 2016 and 2020 both male and female from the 14 institutions (Kilifi County, TVET Education office, 2019).

**Table 3. 1: Distribution of target population**

<b>Category of respondents</b>	<b>Target population</b>
Principals	14
Trainers	200
Second-year finalists	1200
Graduates	1150
<b>Total</b>	<b>2564</b>

*Source: Director Vocational Training Centre Office, 2019- Kilifi County*

### 3.4 Sample size and Sampling Procedure

A sample is a smaller group or sub-group obtained from the accessible population (Kumar, 2019). Sampling is the process of selecting several individuals for a study such that the individuals chosen signify a vast group from where they are taken Chandran, 2003), Mugenda and Mugenda (2003) assert that 30 percent of the accessible population is enough, for descriptive studies.



The suitable sampling method used for the study was the multistage sampling technique. In stage one; the only public TVET institution was picked. In stage two, the simple random sampling technique was used to select vocational training colleges. The principals of the colleges were picked automatically for the study. In stage three, simple random sampling was used to select the trainers and second-year students where every member of the population had an invariable and independent likelihood of being chosen. This was done after obtaining a list of all technical and vocational institutions operating in Kilifi County from the office of the Director of TVET, Kilifi County. The sample size therefore comprised five vocational institutions, 5 principals, 60 trainers, and 140-second year students. Every institution provided a sample size of 20% of the total sample size in each category for manageability purposes.

In stage four, purposive sampling technique was employed to select 115 graduates who completed their training between 2016/2019 in Kilifi County. This was done with the aid of the deans in the institutions who helped in locating TVET graduates living in the area. The Snowball sampling technique was then employed to help identify other TVET graduates to participate in the study. Furthermore, Arya (2002) points out that snowball sampling happens when formerly selected subjects recommend names of other people who can be a suitable sample. Thus, the sample size was 115 graduates.

**Table 3. 2: Sample Size for Respondents**

<b>Category of respondents</b>	<b>Target population</b>	<b>Sample size</b>	<b>Percentage</b>
Principals	14	5	5.7%
Trainers	200	60	30%
Second-year trainees	1200	140	11.7%
Graduates	1150	115	10%
Total	2564	320	31%

### **3.5 Data Collection Instruments**

Questionnaires and interview guides were used to gather data. As stated by Owens (2002) questionnaires have the potential in contacting a wide range of respondents over a short period, accord the respondent ample time to answer the items, ensure confidentiality of the respondents and it is an unbiased technique.

The researcher designed two different questionnaires organized according to the research objectives to gather information from the students and trainers. Section A of the questionnaire gathered information on biographical data of the respondents such as gender, academic qualifications, and the course pursued. Section B of the questionnaire amassed information on the influence of courses offered on the acquisition of employable skills, training facilities, and acquisition of employable skills, teaching pedagogy, and acquisition of employable skills and trainer’s qualifications and acquisition of employable skills by trainees in TVET institutions. Notably, the questionnaire had open-ended items, which facilitated simpler analysis as they were in a direct utilizable form and the Likert scale for the respondents to give their opinion and suggestions. The researcher also

developed two interview guides to gather data detailed information from the principals and graduates.

### **3.6 Validity of the Instruments**

Validity can be delineated as the extent that a test or research tool assesses what it is purported to measure (Mugenda & Mugenda, 2012). Both face and content validity were used to ascertain the validity of the tools. In this regard, content validity denotes the precision to which an instrument measures the factors under study. Therefore, content validity focused on how the questions asked will draw out the details the researcher is searching for.

The research instruments were assessed for content validity by presenting the questionnaires to the supervisors proficient in the field of study. These specialists peer-evaluated the items and proposed ways of ameliorating the items to ensure more explicit data is gathered. Face validity entails checking at the practical implementation of the instrument and judging whether at face value there would be a good translation of the instrument (Osen & Onen, 2009). This was done with the aid of the supervisors. The quality of the instruments was attained by discarding unsuitable were to enhance. Items.

### **3.7 Instrument Reliability**

Reliability alludes to the precision, consistency, and accuracy of the research instrument. It is the degree of coherence that the instrument exhibits (Best and Khan, 2003). The Test-retest technique, which entails administering a similar test two times to the same group of participants within two weeks. The reliability of

the instrument was examined. Anastasi, (1988) infers that the approach establishes the amount of inaccuracy in a test score as a result of problems associated to test administration.

Before embarking on data collection, the researcher carried out a pilot study to assess the interview guides and questionnaires using two vocational colleges, picked using random sampling method. These two colleges were excluded from the ultimate research sample. The sample size for the pilot study was 39 respondents; 2 principals, 2 tutors, 30 students, and 5 2016/2019 graduates. Pearson's Product formulae was used to correlate both sets of scores for every group to test the reliability of the instruments. The validity of each question was analyzed after piloting for clarity, and relevance for the study purposes.

Formulae

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

Where

$\Sigma$  = is the summation sign

r = Pearson co-relation co-efficient (the degree of reliability)

x =score from the first test

y =score from the second test

n = number of scores within each distribution (Mugenda & Mugenda, 2003).

The replies collected were analyzed and a comparison was carried out. A Pearson product coefficient of 0.62 qualified the instruments reliable (Mugenda & Mugenda, 2003).

### **3.8 Data Collection Procedures**

The researcher sought approval from the National Commission of Science, Technology, and Innovation (NACOSTI) in the form of an introduction letter from the University of Nairobi. Further, authorization to undertake the research was acquired from the County Director of Education's office in Kilifi County and the sub-county Education Office. The researcher sought permission from the principals of the randomly selected colleges to administer the instruments.

The package to each college contained a cover letter expounding the purpose of the study and the questionnaires and assurance of the confidentiality in the findings of the study.

### **3.9 Data Analysis and presentation**

As stated by Kombo & Tromp (2009), data analysis connotes to scrutinizing data gathered in research and setting up inferences. First, the data collected was tabulated, scrutinized, and collated for analysis. The Statistical Package for Social Science (SPSS) version 21 was used for coding, processing, and tabulation. Descriptive statistics such as percentages, frequencies, figures, tables, and graphs, and inferential statistics with the aid of SPSS. Chi-square test analysis was used to analyze quantitative data collected from the questionnaire to give the results a much holistic relationship between the variables.

Qualitative data collected from the interview guide was analyzed through sequences, regularity, and patterns of words and phrases for coding purposes, which will then be exposed to quantitative interpretations of frequencies and percentages. The qualitative and quantitative data was then be integrated to facilitate the discussion of the main results and analysis of the data by the researcher to interpret, summarize, and draw conclusions and recommendations of the study.

### **3.10 Ethical considerations**

The necessary authorization was sought from the concerned authorities prior to conducting the research. Furthermore, the researcher explicated the purpose of the study to the respondents and guaranteed them of the non-disclosure of their replies and personal details. The researcher acceded to imperative behavior patterns concerning the rights the respondents.

## **CHAPTER FOUR**

### **DATA ANALYSIS, INTERPRETATION AND DISCUSSION**

#### **4.1 Introduction**

This chapter encompasses an analysis of the study findings from the data collected and the interpretation of the results concerning the relationship between institutional factors and the acquisition of employable skills by students in TVET in Kilifi County. The analysis was carried out in tandem with the study objectives that intended to establish the relationship between courses offered and the acquisition of employable skills by students in TVET institutions, establish the relationship between the availability of training resources and acquisition of employable skills by students in TVET institutions, establish the relationship between teaching methods and acquisition of employable skills by students in TVET institutions, establish the relationship between trainers qualifications and acquisition of employable skills by students in TVET institutions. The research findings were presented in three segments. The first segment addresses the questionnaire return and observation rate.

The second section presented the background information of the respondents while the third section dealt with the research findings, presentations, and interpretations. The study was of descriptive survey nature; data was therefore largely analyzed using percentages then presented using descriptive methods that

is pie charts, graphs, and tables. Chi-square tests were also conducted to determine the magnitude of the relationship between the variables.

#### 4.2 Instrument response rate

The target population of this study included all the five principals, 140 instructors, 1200-second year finalist students, and 1150 graduates from the 1 TVET institution and 4 vocational colleges. Thus, there were 5 responses from all the principals, from 60 teacher questionnaires dispensed 48 from the teachers were given back, out of 120 student questionnaires circulated 95 from the students were replied to out of the sampled population. The response rate is presented as in Table 4.1

*Table 4. 1 Instrument response rate*

<b>Respondents</b>	<b>Sampled</b>	<b>Response</b>	<b>Change</b>
Principals	5	5	100.0
Trainers	60	48	75.0
Students	140	95	79.1
Graduates	115	85	73.9
<b>Totals</b>	<b>320</b>	<b>233</b>	<b>77.8%</b>

According to Table 4.1, the average response rate was (77.8%). This response rate was deemed satisfactory to warrant plausible replies following Mugenda and Mugenda (2003) that a response rate above 50.0% can appropriately be applied in determining the research objectives and answering research questions



### 4.3 Demographic information of respondents

The study sought to enquire about information on varied facets of the respondent's background, such as the respondent's age, gender, courses pursued by students, highest education level, and teaching experience. This information was purported at checking the suitability of the respondents in responding to the questions concerning the relationship between institutional factors and the acquisition of employable skills by students in TVET in Kilifi County.

#### 4.3.1 Principals education level

The principals were asked to state their levels of education as indicated in Table 4.10

*Table 4. 2 Principals' education level*

	Frequency	Percent
Degree	2	40.0
Diploma	3	60.0
<b>Total</b>	<b>5</b>	<b>100</b>

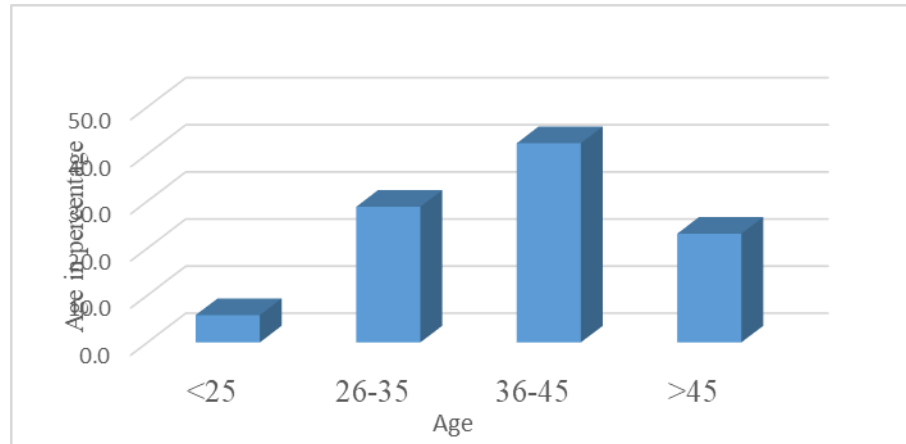
The findings reveal the principals (60%) had a diploma and were quite qualified to teach in the institutions while 40% were degree holders. This depicts that TVET principals are quite knowledgeable on students' training.

#### 4.3.2 Age of teachers

The age of teachers was sought out. The response data is recorded in figure 4.2.

**Figure 4. 1**

**Age of teachers**



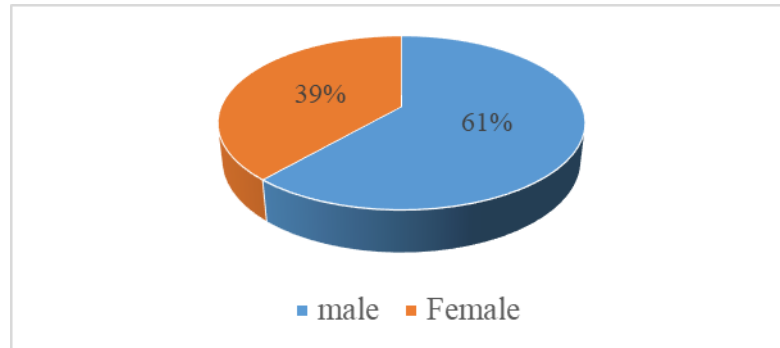
The findings in Figure 4.1 shows that majority of the teachers in TVETs and vocational training colleges are aged between 36-45. This suggests that they are proficient to improve their professions and were at various career growth stages hence likely to induce their new and existing knowledge & experiences to create a versatile training force for effective acquisition of vocational skills by trainees. The data implies that TVET and vocational colleges’ trainers in Kilifi County were comparatively aged and hence may have taught for some time thus experienced enough on how institutional factors influenced student’s acquisition of employable skills.

**4.3.4 Gender of teachers.**

A total of 48 teachers, 30 male, and 18 female teachers took part in the study translating to 61% male participation and 39% female involvement. The data is shown in figure 4.2

**Figure 4. 2**

**Gender of trainers.**



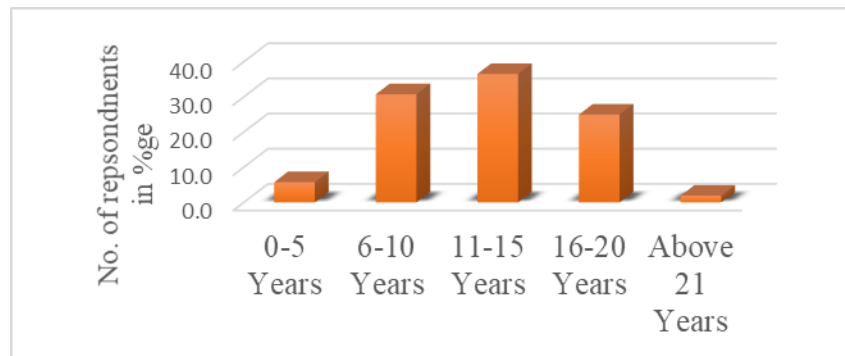
The findings in Figure 4.2 depict that the most of teacher respondents were male (61%). The rationale for the high percentage of male trainers than female instructors` in TVETs and vocational colleges could be primarily accredited to the type of courses provided in the colleges. The courses offered are traditionally viewed as male courses such as mechanics, building and construction, masonry, plumbing, electrical installations, carpentry, and welding (Hicks, et al., 2011). This shows that most TVETS and vocational colleges are lead by male trainers. It can be interpreted from the data that there is gender disparity amongst TVET trainers which calls for maintenance of gender equality as stipulated by the gender equality policy by the ministry of education

#### **4.3.5 Teachers teaching experience**

The instructors were enquired on the duration in years they had been training in TVET institutions to ascertain their acquaintance level on the impartation of employable skills among trainees. The teachers had spent a varied number of years in the institutions as demonstrated in figure 4.3

**Figure 4. 3**

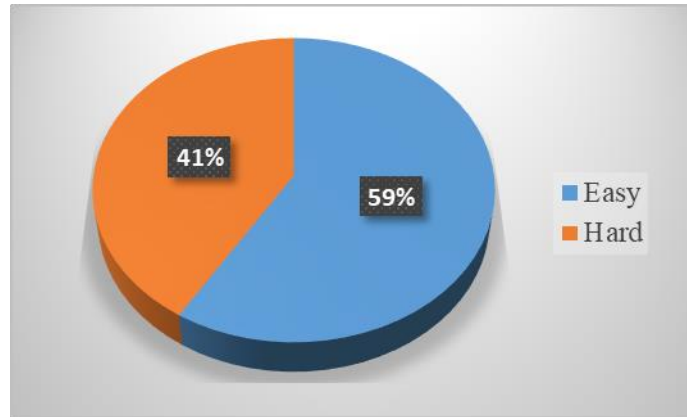
**Teachers teaching experience**



The values in Figure 4.3 represent the duration the teachers had spent teaching in the institutions. The above data indicate that most of the teachers, 86% had spent 6 years and above in the institution. This infers that they were acquainted with the tasks in the institutions' thus able to respond to the questionnaires commendably. Notably, long teaching experience enables the teacher to effectively and efficiently impart skills to the trainees. According to Shiundu (1982), the class teachers teaching experience is important since it enhances competence at service delivery. The principals were also inquired on their length of service as principal in their corresponding institutions. All the Principals indicated a 3 years of experience. The relatively long experience enabled the principals to provide valuable information regarding the research topic. The findings, therefore, imply that principals in TVET and vocational institutions are knowledgeable enough about the trainees' acquisition of employable skills and as such ensure proper training.

**Figure 4. 4**

***Graduates responses on how they found the process of getting a job***

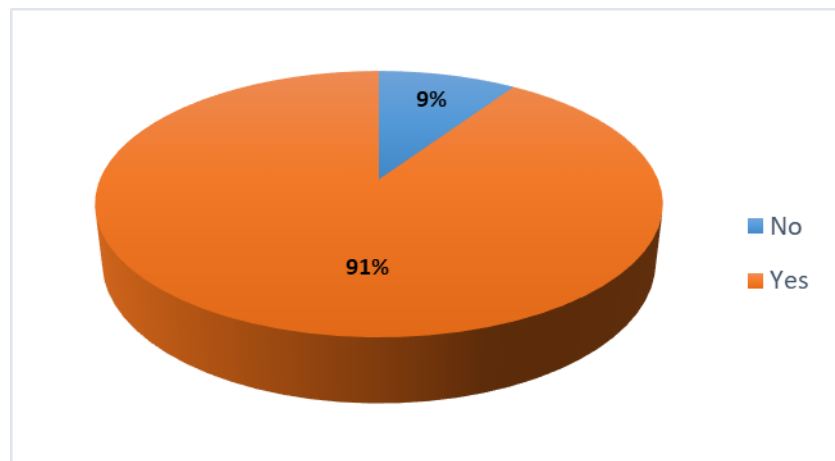


The findings in Figure 4.4 reveal that majority of the graduates (59%) found the process of finding employment easy while 41% found the process hard.

Therefore, the findings imply that TVET training in Kilifi County promotes the acquisition of employable skills needed to secure jobs by the graduates.

**Figure 4. 5**

***Graduates response on whether they would advise others to join TVET***



The findings show that majority of the graduates (91%) found the training crucial and would advise others to join the TVETs and vocational colleges while 9%

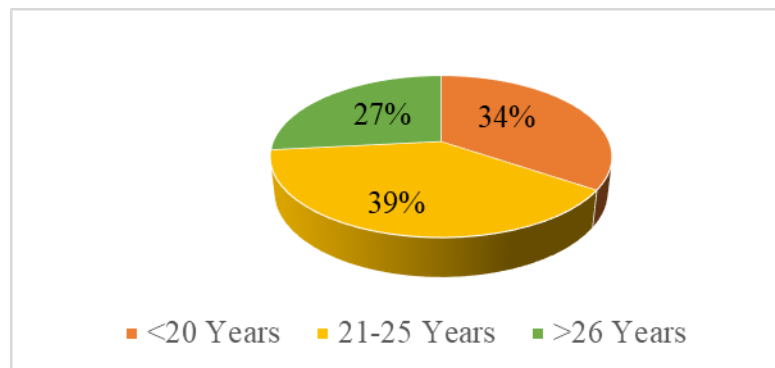
were of the contrary opinion. The finding implies that TVET training in Kilifi County is highly significant in imparting practical skills among the trainees to ensure the transition to the world of work. The findings in congruence with that of Anane (2013) who posited that graduates from TVET had acquired practical skills that enabled them to set up their businesses or were absorbed by the industries.

#### 4.3.6 Age of students

Student's age was enquired to find out the age brackets of students enrolled in TVET institutions. The data is noted in figure 4.6

*Figure 4. 6*

*Age of students*



Results in Figure 4.6 depict that most (39 %) of the trainees in the study were aged between 21-25 years. The findings thus imply most of the trainees were youthful adults who have just finished secondary school education and were ready to acquire vocational and technical skills to empower themselves thus forming potential candidates for middle-level cadre in the job market. Generally, in Kenya, students are projected to complete secondary education at the age of 18 and thereafter proceed to post-secondary institutions. The data infers TVETs and

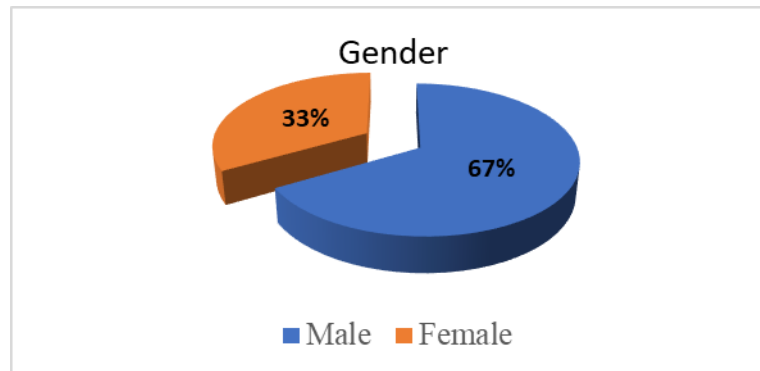
vocational colleges accept students of all ages and that majority of the students were appropriate and thereby capable of offering cogent feedback to the investigator.

#### 4.3.7 Gender of students

95 students, 65 male, and 30 female students were involved in the study translating to 67 % male response rate and 33 % female participation rate. The data was reported in Table 4.7

**Figure 4. 7**

*Gender of students*



The results in Figure 4.7 portray that most (67%) of the trainees who were engaged in the study were male while 33% were female. This illustrates the existence of a relatively great gender disparity among the trainees. The discrepancy could be ascribed to the reality that the TVET and the vocational colleges in the study offered are more pro-male which the female trainees opt not to pursue. Another reason could be that more male students either drop out of basic education programs thereby left with the option of joining TVETs and vocational training institutes. The finding on students' gender is similar to that of

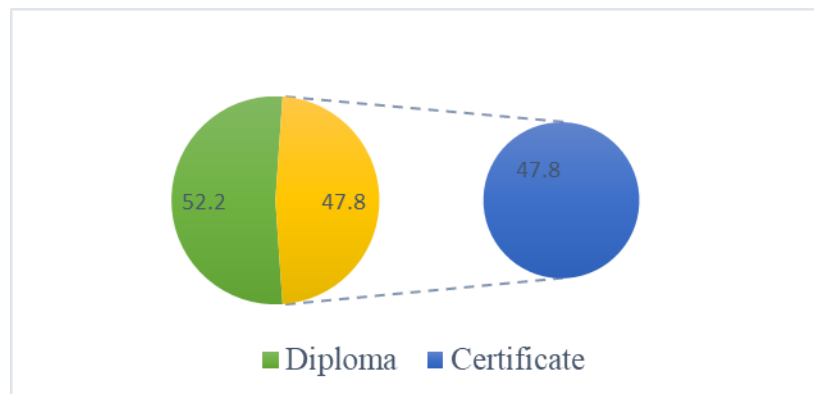
Kingwilu (2014) and Anindo (2016) which revealed that TVET institutions in Kenya have more male trainees than females. However, the findings repudiate the idea held by (UNESCO, 2010) that more female than male students are enrolled at TVETs and youth polytechnics largely because these institutions offer pro-female courses that are attractive to females, such as tailoring, garment making, beauty therapy, and dressmaking. This finding, therefore, reveals gender discrepancies in courses offered as a factor that limits female students from enrolling in TVET institutions and vocational colleges.

#### 4.3.8 Students level of study

Out of 95 students, 55% pursued certificate courses while 45% pursued diploma courses. The data is shown in figure 4.8

**Figure 4. 8**

*Students' education level*



The results in Figure 4.8 evince that diploma courses were majorly (52.2%) pursued by the trainees in the TVETs and vocational training colleges. Therefore, the findings imply that students in Kilifi County prefer pursuing diploma courses attributed to higher marketability and opportunities in the world of work.



### 4.3.9 Courses pursued by students and graduates

The study also sought to investigate the common courses studied by trainees in TVETs and vocational institutions. This aimed to establish the level of influence of courses offered to the acquisition of employable skills and students' views on the relevance to the labour market needs. Students were asked to indicate the courses they were pursuing in the TVET institutions.

*Table 4. 3 Courses pursued by students*

	<b>Frequency</b>	<b>%</b>
Beauty Therapy and Hair Dressing	4	4.7%
Building and Construction	4	4.7%
Carpentry	13	15.3%
Dress and Garment making	2	2.4%
Electrical Engineering	14	16.5%
Fashion and Design	5	5.7%
Hair Dressing	10	11.8%
Masonry	5	5.9%
Mechanical Engineering	4	4.7%
Plumbing	14	16.5%
Tailoring & Dressmaking	9	10.6%
Welding	1	1.2%
<b>Total</b>	<b>85</b>	<b>100</b>

Findings in Table 4.10 unveil that majority (54.0%) of the students in the study were enrolled in electrical engineering (16.5%), tailoring & dressmaking (10.6 %) plumbing (16.5%), and hairdressing (11.8%) courses in the TVETs and vocational colleges. when enquired on why they pursued the courses, majority of the students indicated that they pursued their courses due to the enthusiasm and relevance of the course in the labour market. The findings infer that a large number of the students in Kilifi County pursued craft courses due to the germaneness and ease of getting a job after completion.

#### **4.4 Relationship between Courses offered and on acquisition of employable skills.**

The first objective of the study sought to determine the extent to which courses offered influence the acquisition of employable skills by students in TVETs and vocational training institutions. The teachers and students were asked to gauge the aptness of the courses offered in the institutions.

##### **4.4.1 Trainer's response on courses offered in TVET on acquisition of employable skills**

Thus, the researcher evaluated the extent to which instructors' agreed to the relevance of the courses in the job market, institutions working closely with industry, and whether courses offered to enhance quality orientation and creativity in the job market. Likewise, the instructors were asked to evaluate the sufficiency of the provision of guidance and counseling services and whether Creative skills and use of ICT in TVET enhance quality and creativity in the job market. The Likert scale was used to present the agreement levels of their opinions and the ratings were indicated using strongly agree, disagree, moderately disagree, agree, and strongly agree. Descriptive analysis was used for tabulation and the mode response was obtained. Responses were reported in table 4.4

**Table 4. 4**

***Trainer’s response on the influence of courses offered and acquisition of employable skills.***

	Strongly Disagree		Disagree		Moderate Agree		Agree		Strongly Agree	
	Fre	F %	Fre	F %	Freq	F %	Fre	F %	Freq	F %
Course offered are relevant to the job market	0	0.0 %	0	0.0 %	3	6.3%	20	41.7 %	25	52.1 %
Institution works closely with Industries	0	0.0 %	2	4.2 %	21	43.8 %	17	35.4 %	8	16.7 %
Courses offered in TVET enhance quality orientation and creativity in the job market	0	0.0 %	1	2.1 %	6	12.5 %	17	35.4 %	24	50.0 %
Adequate guidance and Counselling services are provided	0	0.0 %	4	8.3 %	27	56.3 %	9	18.8 %	8	16.7 %
Creative skills and use of ICT in TVET enhance quality and creativity in the job market	0	0.0 %	1	2.1 %	1		6	12.5 %	40	83.3 %

From Table 4.11 above, on teachers' responses on the relevance of courses offered to the job market, 52.1% strongly agreed, 41.7% agreed, 6.3% moderately agreed and none disagreed. The findings reveal that majority of the teachers were gratified with the courses offered in the institutions and highly enhanced acquisition of employable skills among the trainees. This outcome concurs with Yewah (2015) and Njoki (2014) who noted that the TVET curriculum is relevant to the current job market. Conversely, the findings contradict Kiruga et al. (2018) who noted that TVET institutions provide myriad courses that fail to grant the trainees the appropriate employability skills requisite in the labour market. Therefore, the findings indicate that the courses offered in TVETs and vocational colleges in Kilifi County are highly relevant to the job market and therefore influence trainees' acquisition of employable skills and enhanced quality orientation and creativity in the job market.

In terms of whether the Institution works closely with industries, the findings show that 52.1% agreed that the institutions worked closely with the industries. These findings can be credited to the reality that most of the courses in TVETs are practical oriented and industrial attachment is crucial for students' acquisition of the skills. However, the finding is contrary to that of Maingi (2019) who revealed that most TVET institutions lacked industrial collaborations which hampered students' acquisition of skills. Based on this data, the researcher found out that industrial attachment for teachers and students is a key prerequisite for students' acquisition of employable skills in all TVETs and vocational colleges.

Lastly, on whether Creative skills and use of ICT in TVET enhance quality and creativity in the job market, 83.3% strongly agreed that the use of ICT is highly instrumental in the labour market considering the technological era the world is currently in. The finding could be attributed to the technological evolution in all sectors of the economy and the need to keep abreast with the creativity associated with the use of ICT in the contemporary economic world. This indicates that the role of ICT in the technical world cannot be gainsaid and thus should be upheld in all TVET institutions.

The principals' opinion was sought to the extent do the courses offered in the institutions provided graduates with chances of acquiring employable skills. All the principals (100%) signposted that courses offered in the institutions were majorly practical and imparted employable skills among the trainees. The findings agree with other studies findings (Njoki, 2014 & Yewah, 2015) which noted that courses in TVET and vocational training institutions were mostly craft and art and enhanced acquisition of skills by trainees. However, the finding disagrees with Sarimah and Sale (2019) who point out that the TVET curriculum has not been integrated with employable skills contributing to half-baked graduates. Likewise, the principals' were asked whether the institutions provided adequate guidance and counseling services to students. All the principals revealed that guidance and counseling services provided to students were inadequate citing a lack of qualified teachers.

The study also sought information from the principals on whether the current TVET curriculum is in tandem with the labour market demands. All the

principals (100%) agreed that the courses offered in the TVET and vocational college's curriculum were highly relevant to the job market needs. This could be ascribed to the revision of the TVET curriculum by the ministry of education in collaboration with NITA. The finding contrasts with Muya (2016) who opines that the TVET institutions persist to lag behind due rigid and archaic curriculum content leading to inconsistency between skills imparted and those imperative to the employers. This means that the relevance of technical and vocational training in inculcating employable skills in the trainees is prominently determined by the courses offered in the curriculum. If courses are not relevant to the job market this affects the relevance of the trainees in the job market immensely.

#### **4.4.2 Students' response on courses offered in TVET**

The study sought to out the students' insights on; the relevance of the training offered at TVET institution to the existing labor market demands, new skills acquired through TVET courses, and the influence of career guidance and counseling in students' decision making before enrolling for courses at TVET institutions. Likewise, trainees' response was sought on whether creative skills and use of ICT in TVET enhance quality and creativity in the job market

**Table 4. 5**

***Student’s response on the influence of courses offered and acquisition of employable skills***

	Strongly Disagree		Disagree		Agree		Strongly Agree	
	Frequency	F %	Frequency	F %	Frequency	F %	Frequency	F %
The relevance of TVET training to labour demands.	0	0.0%	2	2.1%	87	91.6%	6	6.3%
TVET courses provide chances of acquiring new skills	0	0.0%	3	3.2%	67	70.5%	25	26.3%
Career guidance and counselling helps students in making informed choices	0	0.0%	2	2.1%	42	44.2%	51	53.7%
Creative skills and use of ICT in TVET enhance quality and creativity in the job market	0	0.0%	1	1.1%	3	41.1%	55	57.9%

Table 4.5 presents students’ views on courses offered in TVET. It emerged that the courses offered in TVETs and vocational training institutions were *relevant* to the labour market demands. Majority of the respondents with a

total rating of 97.9% agreeing affirmed this. The finding is attributed to the provision of practical courses in the TVET curriculum as stipulated by NITA. The findings coincide with that of Kisilu (2016) and Akpomudjere (2019) who noted that the TVET courses were labour market-responsive. This study therefore indicates that the courses offered in TVETs and vocational colleges influence the relevance of the trainees in the labour market by providing them with chances of acquiring new skills and therefore proper training must be provided.

The findings revealed career guidance and counseling highly help students in making informed choices before enrolling for courses at TVET institutions as shown by 44.2% of the respondents agreeing and 53.7% strongly agreeing. The study found out that appropriate guidance of students could augment their interest and attitude on the training and assuage dropouts' rates and career switch thus influence the acquisition of employable skills positively. This notion concurs with Sultana G. (2012) who notes that career guidance and counseling could help make TVET and vocational training institutions more appealing to students by marketing them as a desirable option. Based on the findings, the researcher interpreted to imply that proper career guidance and counselling should not be overlooked in TVET as it plays a pivotal role in heightening the morale and interest of the students thus influencing their acquisition of employable skills.

The study further indicates that creative skills and use of ICT in TVET enhance quality and creativity in the job market as shown by 99% of the respondents agreeing. Students noted that the internet was jam-packed with a lot of information which one could learn from. The study therefore infers that TVET



institutions need more ICT facilities and instructors to incorporate ICT in all the courses thus make the trainees technologically buoyant and augment their acquisition of practical aptitudes . Moreover, the outcomes designate that due to the current technological evolution, the use of ICT is paramount in the technical market and thus must be effectually employed in all technical and vocational training.

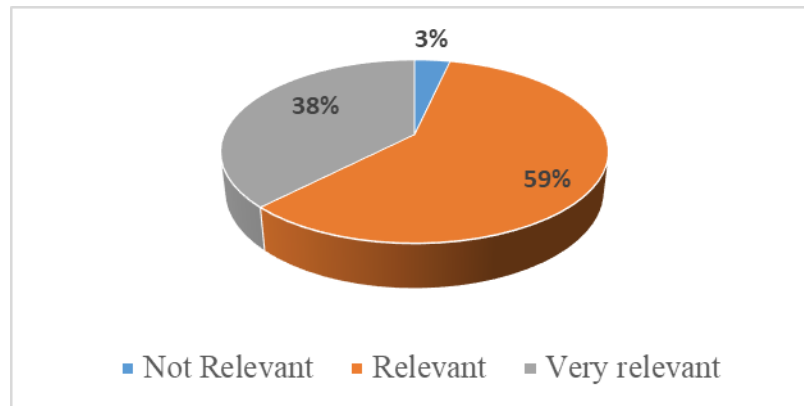
The graduates' opinion was sought on the relevance of the courses and the adequacy of the training offered in the institution in the current labour market. Majority of the graduates agreed that the courses offered in the institutions were very relevant to the labour market needs. The finding could be attributed to the revision of the TVET curriculum by NITA geared towards labour responsive training. Moreover, graduates opinion was sought on whether they would advise others to join TVETs and vocational training institutions. Majority of them affirmed citing the efficacy and relevance of the training in reducing the plagued redundancy among the youth and unemployment -triggered poverty. The findings coincide with Osidipe (2017) who revealed that TVET training is an indispensable platform for skills acquisition for poverty reduction among the youth and thus training must be relevant to the market needs. Based on these revelations, the researcher interpreted this to imply relevant and market driven in TVET institutions influence trainees acquisition of employable skills thus ensuring production of a labour driven workforce.

### 4.3.5 Graduates responses on the relevance of TVET courses

The graduates' opinion was sought on the relevance of the courses offered in TVET institution and vocational colleges. The data is shown below in figure 4.9

**Figure 4. 9**

***Graduates responses on the relevance of courses offered***



The findings in the figure 4.9 illustrate that majority of graduates (97%) agreed that the courses offered TVET and vocational colleges were relevant to the job market. The finding can be attributed to practical nature of the courses in imparting skills. Therefore, this imply that when courses in TVET are relevant to the job market graduates acquire employable skills and are to transit to the labour market promptly.

### **Testing of the relationship between courses offered on student's acquisition of employable skills**

A chi-square test was carried out to find out whether courses offered in TVET and vocational colleges have influence on trainees' acquisition of employable skills at significant level of 0.05 as shown in table 4.6

**Table 4.6**

**Testing the influence of courses offered on trainees' acquisition of vocational skills in in TVETs and vocational training institutions**

**Table 4. 6:**

**Testing the relationship between courses offered and trainees' acquisition of vocational skills in TVETs and vocational training institutions**

<b>Chi-Square Tests</b>					
		Value	Df	Asymp. Sign. (2-sided)	Th
Pearson	Chi-Square	120.348 <sup>a</sup>	48	.0019	e
	Likelihood Ratio	58.770	48	.137	
	Linear-by-Linear Association	11.078	1	.001	res
	N of Valid Cases	95			ults

were;  $X^2(48, N=95) = 120.348, P=.019$ . Therefore, the p-value 0.019 is less than the significant level of 0.05 associated with 95% confidence level. This implied the existence of a statically substantial relationship between the courses offered in TVET and vocational institutions and trainees' acquisition of employable skills in Kilifi County, Kenya. The study findings were in agreement with Kwasira (2019).

#### **4.5 Relationship between the availability of training resources and equipment and acquisition of employable skills**

Secondly, the study sought to find out the magnitude to which the availability of training equipment influences acquisition of employable skills by students in TVETs and vocational training institutions. To analyze the influence

of training equipment on acquisition of employable skills, the researcher evaluated the sufficiency, quality, and suitability of the training equipment.

The teachers were asked to evaluate the relevance, and adequacy of training equipment and their influence on acquisition of employable skills. The responses were shown in Table 4.11.

**Table 4. 7 Teacher’s response to the availability of training equipment and acquisition of employable skills.**

	Strongly Disagree		Disagree		Neither agree nor Disagree		Agree		Strongly Agree	
	F	F %	F	F %	F	F %	F	F %	F	F %
Adequate and relevant provision of training course books and reference materials	38	79.2%	6	12.5 %	0	0.0%	2	4.2%	2	4.2%
well-equipped workshops and libraries	15	31.3%	31	64.6 %	0	0.0%	2	4.2%	0	0.0%
Training equipment is up to date/relevant to the industrial equipment	2	4.2%	8	16.7 %	29	60.4%	8	16.7%	1	2.1%
The nature and availability of training equipment influence the acquisition of relevant employable skills	0	0.0%	0	0.0%	2	4.2%	5	10.4%	41	85.4%
Laboratories and workshops influence trainees’ acquisition of employable skills	0	0.0%	0	0.0%	1	2.1%	6	12.5%	41	85.4%

The results in Table 4.6 depict that most of the instructors (91.7%) agreed that course books and reference materials were inadequate versus only 8.3% of teachers who showed adequacy. This infers that the trainers felt that TVETs and vocational training institutions functioned with derisory training equipment. As opined by G.O.K (2015), training facilities are crucial if TVET training in Kenya are to meet the labour market demands and propel the country attainment of vision 2030. Therefore, innovation will only be part of the training with adequate facilities and resources, which should be available sufficiently in the institutions. This finding accord to the findings of Anindo (2016) who revealed that most of TVET institutions functioned with derisory training facilities and equipment. This means that the TVET trainees may not acquire employable skills without adequate training course books and reference materials. Thus can be deduced that all TVETs must provide adequate training facilities and resources to ensure students acquisition of employable skills.

The study also enquired on whether workshops and laboratories were well equipped. The teachers (95.9%) disagreed that the workshops and libraries were well equipped while only 4.1% agreed the workshops were well equipped. validating this study, kwasira (2019) pointed out that the lack of well-equipped workshops and libraries compromises the relevance of skills acquired because most of the training is rendered theoretical. The finding deduces that TVET institutions in Kilifi County are inadequately equipped with workshops and libraries and impedes trainees' acquisition of employable skills.

Consequently, the study inquired on whether the training equipment was relevant or industrially in tandem with the training equipment applied in labour market. The trainers (18.8%) indicated that the training equipment was appropriate to the equipment utilized in the modern industrial sector while 20.9% felt that the equipment were irrelevant to the ones used in industries while 60.4% neither agreed nor disagreed. This could be viable particularly in engineering fields that require modern equipment attributed to current technological explosion in the industry. Corroborating these findings, Edokpolor and Dumbiri (2019) postulate that one of the key impendent among TVET educators is obsolete workshops, equipment, and inadequate instructional materials. This implies that student's acquisition of employable skills is thwarted by outdated training equipment.

The study, therefore, sought information from the teachers on whether laboratories and workshops influence trainees' acquisition of employable skills. The findings revealed that teachers (95.8%) agreed that laboratories and workshops influence trainees' acquisition of employable skills while 4.2% of the trainers could not make up their minds. The results coincide with Chukwumaijem (2015) who the existence of a significant  $r$  correlation between the availability of adequate and well-equipped libraries and laboratories and students' acquisition of employable skills. The findings infer that the acquisition of employable skills by trainees in TVET and vocational colleges is effective when adequate laboratories and libraries are provided. Thus TVET institutions should provide adequate

libraries and laboratories if efficacy in practical skill acquisition is to be guaranteed.

The study also sought information on how the provision of training equipment influenced the acquisition of employability proficiencies by trainees in the colleges. The findings of the study revealed that majority of teachers (97.9%) indicated that the availability of training resources expressly affected students' acquisition of employable skills. Further, the findings revealed that the inadequacy of the training facilities erodes the relevance of training to labour market needs. On the other hand, 2.1% of respondents indicated that the availability of the training equipment did not affect the students' acquisition of employable skills related to demanded market needs. The findings are in agreement with that of Ayomnike (2016) who reported that the provision of relevant training resources greatly affected trainee's acquisition of market skills. This findings can be interpreted to deduce that when training equipment is adequately available in TVETs and vocational colleges, trainees acquire competently employable skills.

The principals' opinion was inquired on whether the availability of training equipment influenced the impartation of labour market skills by students in the institutions. All the principals agreed that the availability of training equipment influenced the acquisition of employability aptitudes. However, all the principals showed the deficiency of training resources among the key hindrances facing TVETs and vocational training institutions. One of the focal reasons given was limited support from the community, industries, and donors and inadequate funds from the government. These findings concur with findings of Anindo (2016); Yewah (2014) and Maingi (2019) hence placing the acquisition of employable skills by trainees in jeopardy. Principals (100%) denoted that most of the training equipment was outdated compared to the ones used in the job market.

Furthermore, the above finding concur with Mwangi, (2015 whose study pointed out inadequacy and outdated training resources in TVET institutions. The principals acknowledged the imperative demand for the relevant parties to aid the colleges in supply of modern training resources. Therefore, when trainees are provided with adequate and relevant training equipment, acquisition of employable skills is certain thus curbing the challenge of skills mismatch in the labour market.



**Table 4. 8**

***Student's response on the availability of training equipment and acquisition of employable skills***

	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
	Frequency	F %	Frequency	F %	Frequency	F %	Frequency	F %	Frequency	F %
There is adequate and relevant training equipment for practical training	11	11.6%	31	32.6%	6	6.3%	43	45.3%	4	4.2%
The training equipment is relevant to the one used in industries	9	9.6%	25	26.6%	3	3.2%	49	52.1%	8	8.5%
Workshops laboratories are well equipped with modern equipment	21	22.1%	31	32.6%	3	3.2%	30	31.6%	10	10.5%
Adequate practical time	10	10.5%	19	20.0%	5	5.3%	33	34.7%	28	29.5%
Inadequate training equipment negatively affect the acquisition of skills	3	3.2%	6	6.3%	3	3.2%	23	24.2%	60	63.2%
The relevance of training equipment influences the acquisition of employable skills	0	0.0%	1	1.1%	3	3.2%	24	25.3%	67	70.5%

The trainees' viewpoint was sought about the adequateness and relevance of training equipment for practical training. The majority of the student's respondents (55.8%) stated inadequacy whereas 44.2% showed that the training equipment was sufficient. This means that most of the trainees perceived that inadequate training equipment hindered their training and made the trainers reduce the time for practical. The findings concurs with Amedorme (2013) who pointed out that lack of training facilities a hindered skill acquisition among TVET graduates .The findings can be interpreted to mean that student's chances of acquiring employable skills in TVET are elevated when adequate and relevant training equipment is provided. Thus it can be concluded that TVET and vocational institutions in Kilifi county need to be equipped with adequate training equipment.

The study also sought information on the suitability of the training equipment in comparison to those in industries. Most of the trainees (60.5%) indicated that the training equipment was relevant whereas 42.1% gauged the equipment as irrelevant. The study revealed that particular courses such as tailoring and hairdressing used completely outdated facilities. Only 4.3% of the students neither agreed nor disagreed. This implied that they could be satisfied with the equipment in the institution depending on the nature of courses they were pursuing. The finding diverges with that of Anindo (2016) who noted that TVET institutions used outdated training equipment which hampered trainee's acquisition of skills. This subsequently means that training equipment in TVET

and vocational colleges is relatively relevant to equipment used in the industrial hence promotes trainees' attainment of practical competencies

The trainees were also queried to evaluate the sufficiency of practical time. Most of the students (64.2%) concurred that there was adequate provision of practical time while 30.5% felt that the time was inadequate, which affected them negatively in acquiring employable skills. A few of the respondents (5.3%) neither agreed nor disagreed which can be attributed to diversity in courses students pursue alongside the need for practical. this, therefore, infers that provision of adequate practical time is a precondition to trainees' acquisition of employable skills in TVET institutions.

The graduates' opinion was sought on whether the provision of training resourcest influenced the acquisition of employable skills by students in the TVETs and vocational training colleges. All the graduates agreed that availability of training equipment influenced the acquisition of employable skills. The graduates on the contrary cited inadequacy and outdated training facilities as a backdrop for the trainees' acquisition of employable skills in the institutions. Majority of the graduates cited inconsistencies in the training facilities in the institution and those in the world of work. The graduates urged the TVETs and vocational centers in conjunction with the relevant stakeholders to improve the facilities if trainees are to acquire employable skills. This can be interpreted to mean that TVET institutions in Kilifi County have derisory training equipment which hampers trainee's acquisition of employable skills.

**Testing the relationship between training facilities and resources and students acquisition of employable skills**

A chi-square test was carried out to find out if the availability of training facilities and resources in TVET and vocational colleges influence trainees’ acquisition of employable skills at a significant level of 0.05 as shown in table 4.5

**Table 4. 9**

***Testing the relationship between training facilities and resources on trainees’ acquisition of vocational skills in TVET and vocational training colleges***

<b>Chi-Square Tests</b>			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.888 <sup>a</sup>	36	.002
Likelihood Ratio	61.203	36	.005
Linear-by-Linear Association	27.249	1	.000
N of Valid Cases	95		

The results were;  $X^2(36, N=95) = 64.888, P=. 002$ . Therefore, the p-value 0.002 is less than the significant level of 0.05 associated with a 95% confidence level. This implied the existence of substantial correlation between training facilities and equipment in TVET and vocational institutions and trainees’ acquisition of employable skills in Kilifi County, Kenya. The study findings were in agreement with Kwasira (2019).

**4.6 Relationship between training methods and acquisition of employable skills**

The third objective of the study investigated the relationship between teachers' training methods and students' acquisition of employable skills in TVETs and vocational training colleges. This section presents the results on training methods

employed by instructors, trainees, and graduates' responses on the training techniques used by trainers, students' responses on the teaching methods that influence the acquisition of employable skills, and finally discussions of the findings.

To analyze the influence of training strategies on the acquisition of practical skills, the researcher evaluated the trainer's use of the Case Study, role Play, experimentation, field trips, Problem based learning, Lecture method, and work-based learning. The responses were as illustrated on the tables

**Table 4. 10**

***Teachers' response to teaching methods and the acquisition of employable skills.***

	Never		Rarely		Often		Always	
	Freq	F %	Freq	F %	Freq	F %	Freq	F %
Case Study	16	33.3 %	27	56.3 %	1	2.1%	4	8.3%
Role Play	9	18.8 %	18	37.5 %	16	33.3%	5	10.4 %
Experimentation	1	2.1%	3	6.3%	8	16.7%	36	75.0 %
Field Trips	0	0.0%	5	10.4 %	10	20.8%	33	68.8 %
Problem based learning	0	0.0%	2	4.2%	30	62.5%	16	33.3 %
Lecture method	0	0.0%	4	8.3%	17	35.4%	27	56.3 %
Work Based Learning	0	0.0%	1	2.1%	24	50.0%	23	47.9 %

The results in Table 4.10 denote that a large number of the trainers employ experimentation field trips and lecture approaches of training constantly in the training of students. Work-based learning was frequently employed because it

encompasses practical attachment of trainees in industries. Other methods such as case study and role-play were rarely or never used due to the inadequacy of training facilities and equipment. These findings coincide with Maingi (2019) and who indicated work-based learning, field trip, and project work as the most operative and efficient teaching methods to be used to enable students to acquire skills. The findings further concur with Anindo (2016) who unveiled lecture method as the commonly used training approach in Kenyan TVETs though its theory-based and hampers trainees' acquisition of employable skills. Importantly, all the trainers agreed that the method of teaching used immensely influences students' acquisition of employable skills. When the trainers were queried to propose the approaches that augment trainees' attainment of employable skills, majority of them stated that experimentation and work-based learning methods. These findings can be inferred to mean that TVET and vocational training teachers need to embrace learner-centered methods to heighten quality training. Moreover, it can be deduced that ineffective training methods compromise trainees' acquisition of employable skills in TVET and vocational training colleges.

The principals also highlight the most common training methods used by their teachers when asked. The principals indicated the use of lecture, experimentation, and field trips methods by teachers mainly due to derisory training facilities and equipment and the nature of skills imparted. Further, the principals affirmed that the training strategies used prominently influence acquisition of employable skills and admonished the teachers to use learner-

centered approaches of training to warrant graduate marketability globally. Therefore, the use of inappropriate training methods creates an unfavorable environment for the impartation of employable skills in TVETs and vocational training institutions. Thus it can be inferred that trainers in TVET do not consistently use learner-centered training methods which impede skills acquisition.

**Table 4. 11**

*Students' response to teaching methods and acquisition of employable skills*

	<b>Strongly Agree</b>		<b>Agree</b>		<b>Neutral</b>		<b>Disagree</b>		<b>Strongly disagree</b>	
	Fre que ncy	F %	Fre que ncy	F %	Fre que ncy	F %	Fr eq ue nc y	F %	Fre que ncy	F %
Project learning is common in your course	3	3.2 %	73	76.8 %	5	5.3%	9	9.5%	5	5.3%
Experimentation method is common	4	4.2 %	63	66.3 %	14	14.7%	9	9.5%	5	5.3%
Role play is very common in your course	1	1.1 %	25	26.3 %	28	29.5%	27	28.4 %	14	14.7 %
Work-based learning is widely used in your area	2	2.1 %	15	15.8 %	19	20.0%	43	45.3 %	16	16.8 %
Lecture method is commonly used	25	26.3%	31	32.6	23	24.2%	14	14.7 %	1	2.1%
Programmed instruction is common in your course	1	1.1 %	5	5.3%	8	8.4%	23	24.2 %	58	61.1 %

The findings of the study depicted that most of trainees' 76.8% concurred that the project learning method is very commonly used in their course while 14.8% disagreed and 5.3% were neutral. Besides, most of students 66.3% agreed that experimentation approach is employed by the trainers compared to 14.8% who consented. Notwithstanding, majority of the students 62.1% disagreed on exposure to job-based learning while 17.9% agreed and 20.0% were undecided. On the use of problem-based learning frequently, majority of trainees 46.2% strongly disagreed, 17.2% strongly agreed and 23.7% were undecided. The findings also revealed that most of students 58.9% agreed that the lecture method was commonly used in their training while 16.8% disagreed and 24.2% were neutral. Moreover, majority of the trainees 85.3% strongly disagreed that Programmed instruction is common in their courses while 6.4% agreed. This implies that ICT has not been incorporated fully in the training of students in TVETs and vocational training institutions. Moreover, all the trainees agreed that the training method used influences the acquisition of skills. Lastly, when asked to suggest the training methods that enhanced their acquisition of employable skills, most trainees outlined experimentation, project, and work-based learning methods. Trainees also stated that lecture method mired their acquisition of skills. These findings agree with Changilwa (2016) who points out that TVET has lost its relevance due to derisory of modern equipment, outdated technology, and inadequate training materials for both instructors and trainees which affects negatively the training strategies employed by instructors. Corroborating the findings of the study, Karemu and Gongera (2014) report indicated that the



training is majorly theory-based hence causing to a disparity of skills acquisition among TVET graduates. The findings, therefore, imply that teachers in TVET and vocational colleges inconsistently use trainee centered methods of training which encumbers skill acquisition in Kilifi County, Kenya.

Graduates' opinion was sought on the most commonly used training methods used by the teachers. Most of the graduates stated experimentation and lecture methods. Furthermore, majority of the graduates stated that lecture method stalled their acquisition of employable skills, which poses a challenge in their workplaces. This finding concurs with Karemu and Gongera (2014) who reported theory-based training as a basis for mismatch of skills among TVET graduates.

### **Testing the relationship between training pedagogy and acquisition of employable skills**

A chi-square test was carried out to find out whether the training methods used in TVET and vocational colleges related to trainees' acquisition of employable skills at a significant level of 0.05 as shown in table 4.5

**Table 4. 12**

***Testing the relationship between training facilities and resources and trainees' acquisition of vocational skills in TVET and vocational training colleges***

<b>Chi-Square Tests</b>			
	<b>Value</b>	<b>Df</b>	<b>Asymp. Sig. (2-sided)</b>
Pearson Chi-Square	56.326 <sup>a</sup>	36	.017
Likelihood Ratio	62.189	36	.004
Linear-by-Linear Association	26.934	1	.000
N of Valid Cases	95		

The results were;  $X^2(36, N=95) = 56.326, P=. 017$ . Therefore, the p-value 0.017 is less than the significant level of 0.05 associated with a 95% confidence level. This implied that there is a significant relationship between training pedagogy used in TVET and vocational institutions and trainees' acquisition of employable skills in Kilifi County, Kenya. The study findings were in agreement with Anindo (2016).

#### **4.7 Relationship between trainers qualifications and the acquisition of employable skills**

The study investigated the correlation between trainers' qualifications and the acquisition of employable skills. The respondents were trainers and principals.

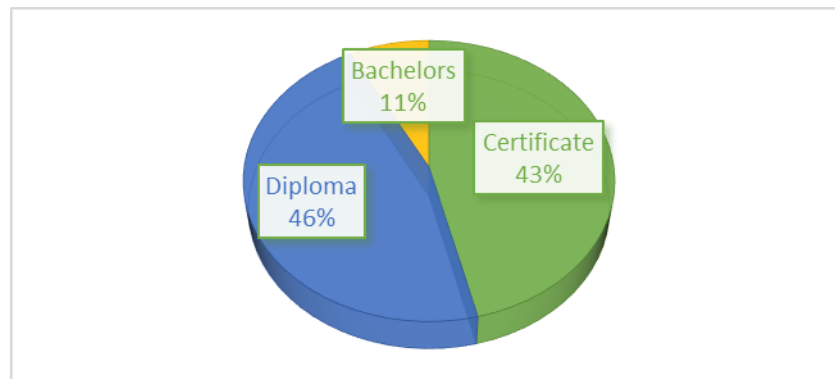
##### **4.7.1 Academic qualification of teachers**

The study investigated the academic qualification of trainers to determine its effects on students' acquisition of employability skills. The trainers and principals were asked to show their highest academic qualification they had attained

classified as, degree, diploma, certificate, and any other qualifications. The results were shown in Table 4.10.

**Figure 4. 10**

***Trainer’s academic qualifications***



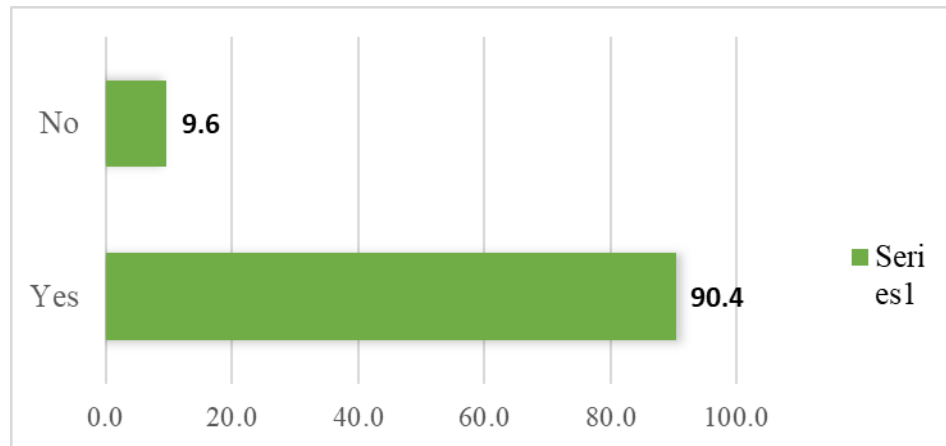
From the chart above, none of the trainers had the academic qualification of a Master's degree. The majority of teachers (46 %) had a diploma, (43 %) certificate in education, and (11%) had bachelors. This implies that the teachers were qualified for the impartation of skills among the trainees. The findings were in agreement with Yewa (2015) and Anindo (2016) whose findings indicated that the teaching staff in TVETs and vocational training centers had satisfactory qualifications. Therefore, this can be deduced to connote that TVET and vocational training institutions trainers are comparatively academically competent resulting in the impartation of employable skills among the trainees in Kilifi County.

### 4.7.2 Industrial attachment of TVET teachers

The study also established whether teachers had carried out industrial attachment during their pre-service training. The responses are presented in figure 4.11.

**Figure 4. 11**

#### *Industrial attachment of teachers*



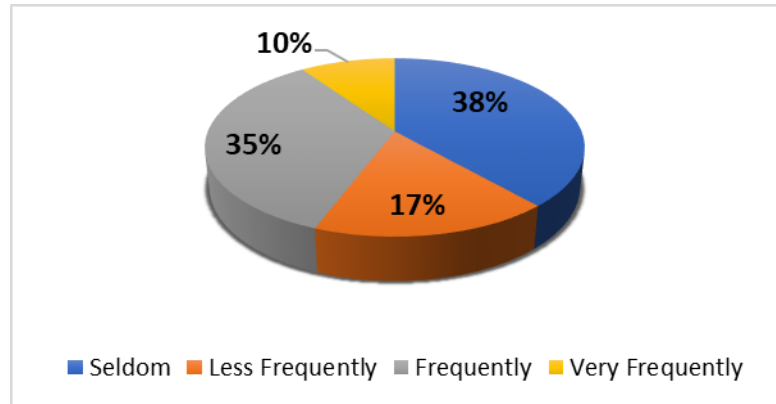
Findings in figure 4. 11 reveal that majority of the respondents (90.4 %) concurred their participation in industrial attachment and had aided their imparting employable skills in the trainees. This, therefore, allude that trainers in TVET are abreast of the modern technologies in the industries hence efficacious impartation of employable skills among trainees.

### 4.7.3 Trainers attendance to seminars/ workshops

The study also sought to find out how often teachers attend seminars/workshops on TVET. The responses are recorded in Table 4.12

**Figure 4. 12**

***Trainer’s attendance to seminars***



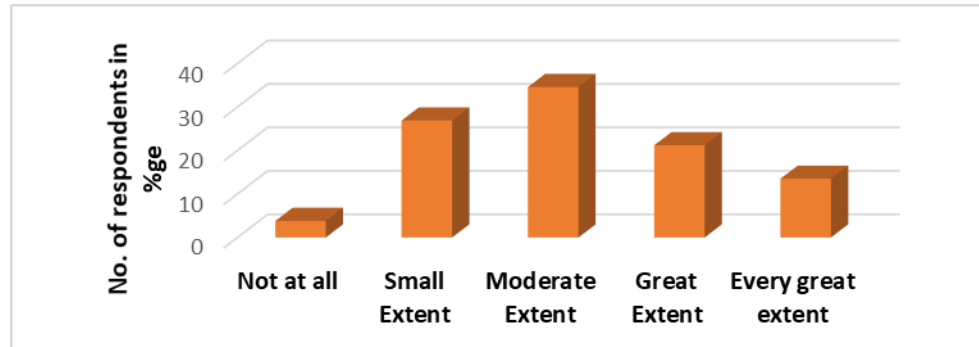
The findings in figure 4.12 reveal that 35% indicated that trainers attend seminars frequently, 17% of the teachers indicated that attendance to workshops is less frequent, 38% of the teachers reported that they seldom attend workshops while 10% indicated that they attend seminars very frequently. This implies that 55% of the teachers agreed that there was attendance at TVET seminars. These findings diverge with Indoshi, et al.’s (2010) and Maingi (2019) who indicated that TVET trainers had insufficient disclosure to modern technology to improve their training. Therefore, the findings infer that TVET trainers inaptly attend seminars that negatively influences students' acquisition of practical capabilities.

**4.7.4 Influence of trainers qualification on students acquisition of employable skills**

The study also aimed to find out the extent to which trainers academic qualifications influenced student's acquisition of employable skills. The responses are presented in figure 4.13

**Figure 4.13**

***Influence if trainers qualifications on trainees acquisition of employable skills***



**Source: Field Data, 2020**

The findings reveal that 25% of the trainers believed to a small extent that their academic qualifications had a great impact on the impartation of employable skills among students and 33% to a moderate extent. Also, 25% believed to a great extent that their academic qualifications had a high influence on the teaching, 13% believed to a very great extent while 4% did not believe at all. Therefore, the majority of teachers (71%) stated that their academic qualifications expressively impacted on the students' acquisition of employable skills because it aids their comprehension of the course content theoretically and practically. This implies that quality trainers tend to be creative and innovative in content delivery. Besides, if TVET and vocational training institutions teachers are not adequately trained acquisition of practical skills by trainees will be hampered exceedingly.

#### 4.7.5 Trainers responses on the level of students acquisition of employable skills

The study also sought to find out from the trainers the extent to which they believed that the trainees and graduates have acquired the employable skills. The responses are presented in table 4.9

**Table 4. 13**

***Trainer’s responses on the level of student’s acquisition of employable skills***

	Not at All		Small Extent		Moderate Extent		Great Extent		A Very Great Extent	
	fre	f %	fre	f %	fre	f %	fr	f %	fre	f %
Personal Qualities	2	4.2 %	13	27.1 %	16	33.3 %	1	20.8 %	7	14.6 %
Interpersonal Skills	1	2.1 %	5	10.4 %	16	33.3 %	2	41.7 %	6	12.5 %
Creativity Skills	1	2.1 %	8	16.7 %	14	29.2 %	2	43.8 %	4	8.3 %
Problem Solving Skills	0	0.0 %	18	37.5 %	6	18.5 %	1	37.5 %	6	12.5 %
Communication Skills	0	0.0 %	3	6.3 %	13	27.1 %	2	41.7 %	12	25.0 %
Basic Skills	1	2.1 %	6	12.5 %	10	20.8 %	1	37.5 %	13	27.1 %
Adaptable Work Ethics	0	0.0 %	4	8.3 %	14	29.2 %	2	45.8 %	8	16.7 %
Professionalism	2	4.2 %	2	4.2 %	3	6.3 %	1	25.0 %	29	60.4 %

From the above findings in table 4.9, it can be inferred that the trainers were moderately satisfied with trainees' acquisition of relevant skills. Regarding personal qualities, 35.4% believed to a large extent while 32.2% were believed to

a small extent. On creativity skills, majority of the trainers rated the acquisition to 52.1% compared to an 18.8% small extent rating. Concerning the acquisition of problem-solving skills 50.0% agreed believed that the trainees had acquired that skill, while 37.7% rated the skill acquisition to a small extent and 12.5% moderate rating. Likewise, regarding acquisition of basic skills and professionalism, the trainers were dissatisfied. It should be noted clearly that training alone cannot create jobs, but with employable skills, graduates can easily navigate the labour market by creating jobs. The findings on trainer's dissatisfaction can be concomitant to derisory training facilities that only permit for teacher-centered approaches of training debilitating skills acquisition. The findings concur with Leka (2017) who notes that inadequate impartation of employable skills among trainees escalates youth unemployment due to mismatch in the labour market. Based on this analysis it appears that trainees had not adequately acquired employable skills in TVET and vocational institutions in Kilifi County.

#### **Testing the relationship between trainers qualifications and trainees acquisition of employable skills**

A chi-square test was carried out to find out whether the availability of training facilities and resources in TVET and vocational colleges influence trainees' acquisition of employable skills at a significant level of 0.05 as shown in table 4.14



**Table 4. 14**

***Testing the relationship between trainers qualifications and trainees' acquisition of employable skills in TVET and vocational training colleges***

<b>Chi-Square Tests</b>			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	77.928 <sup>a</sup>	48	.004
Likelihood Ratio	60.254	48	.110
Linear-by-Linear Association	6.690	1	.010
N of Valid Cases	95		

The results were;  $X^2 (48, N=95) = 77.928, P=. 004$ . Therefore, the p-value 0.004 is less than the significant level of 0.05 associated with a 95% confidence level. This implied that there is a significant correlation between teachers' qualifications in TVET and vocational institutions and trainees' acquisition of employable skills in Kilifi County, Kenya. The study findings were in agreement with, Ovwiroro (2019).

#### **4.8 Level of students acquisition of employable skills**

The study also sought to determine the extent to which they students believed that they have acquired employable skills to establish the link between the quality of training and preparation for the job market. The responses are presented in table 4:10

**Table 4. 15**

**Level of students' acquisition of skills**

	<b>Strongly Agree</b>		<b>Agree</b>		<b>Neutral</b>		<b>Disagree</b>		<b>Strongly disagree</b>	
	Fre	F %	Fre	F %	Fre	F %	Fre	F %	Fre	F %
Personal Qualities	1	1.1 %	28	29.5 %	49	51.6 %	8	8.4%	9	9.5 %
Interpersonal skills	0	0.0 %	6	6.3 %	57	60.0 %	24	25.3 %	8	8.4 %
Creativity skills	0	0.0 %	9	9.5 %	41	43.2 %	36	37.9 %	9	9.5 %
Problem solving skills	0	0.0 %	4	4.2 %	31	32.6 %	45	47.4 %	15	15.8 %
Communication Skills	0	0.0 %	4	4.2 %	42	44.2 %	30	31.6 %	19	20.0 %
Basic Skills	0	0.0 %	6	6.3 %	29	30.5 %	45	47.4 %	15	15.8 %
Professionalism	0	0.0 %	1	1.1 %	19	20.0 %	34	35.8 %	41	43.2 %

From the above findings, it can be inferred that the trainees were moderately contented with the training concerning the labour market demands. Regarding personal qualities, 30.6% agreed that they had acquired while 51.6% were undecided. On creativity skills, 46.4 % disagreed while 9.5% agreed. Concerning acquisition of problem-solving skills, 47.4% disagreed, 15.8% strongly disagreed while 4.2% agreed. The findings could be ascribed to inadequate and outdated training facilities and equipment, theory-based training methods, and some under-qualified trainers. Without gainsaying, it is essential for TVET and vocational training educators to constantly evaluate the program to ensure that its content remains relevant, of high quality, and is in line with the demand of the job market.

Based on the simple economic laws of employment, it is catastrophic to employ graduates with skills that are not in demand. The study findings agree with Nason (2019) who noted that lack of skill-driven training in TVET institutions as the greatest cause of unemployment. The findings imply that trainees in TVET and vocational training institutions are ineffectually trained and thus not satisfied with the training. This means that thus the training is not fully focused on acquisition of employable skills in Kilifi County, Kenya.

#### **4.9 Graduates responses to the extent TVET institutions training helped develop employable skills**

The study aimed at assessing the employable skills acquired by the graduates in the TVETs and vocational colleges aimed at establishing the relationship between quality of training and graduates' preparation for the labor market. Graduates were asked to indicate level of acquisition of employable skills. The likert scale was used to rate the opinions and attitudes of the graduates regarding the acquisition of employable skills. The responses were presented in the Table 4.11

**Table 4. 16**

***Graduates responses to the extent TVET helped them acquire employable skills***

<b>Employable skills</b>	Not at All	Some Extent	High Extent	Very High Extent
	<b>Frequency %</b>	<b>Frequency %</b>	<b>Frequency %</b>	<b>Frequency %</b>
Personal qualities	2.5%	2.5%	17.3%	77.8%
Interpersonal skills	1.2%	1.2%	48.1%	49.4%
Creativity and innovative skills	40.0%	35.3%	21.2%	3.5%
Problem-solving skills	38.3%	43.2%	17.3%	1.2%
communication skills	53.1%	42.0%	1.2 %	3.7%
Basic skills	45.7%	37.0%	43.7%	13.6%
Professionalism	3.7%	34.6%	40.7%	21.0%

The findings reveal that the trainees to a high extent acquired professionalism (40.7%), personal qualities (77.8%), and interpersonal skills (49.4%) while problem-solving skills (81.5%), Creativity and innovative skills (75.3%), and communication skills (53.1%) were acquired to a small extent. The findings reveal that TVET institutions have not fully applied all relevant mechanisms to ensure the full acquisition of all employable skills thus students are dissatisfied and relatively incompetent.

Graduates opinion was also sought on the skills emphasized by the employers when looking for employment. Majority indicated creativity and innovation skills (54%), problem-solving (46%), and professionalism (70%) as the most emphasized skills. this connotes that TVET and vocational training institutions should focus more on such skills to ensure that graduates fit in the labour market. based on the analysis it seems that graduates in TVET and vocational training

centers are not fully equipped with all the employable skills thus encounter some challenges in the workplace.

#### **4.10 Challenges facing TVET institutions in producing graduates with employable skills.**

The study sought the principals’ opinions through an interview on difficulties hindering the TVET institutions in producing graduates with employability skills.

The summary of challenges are shown in Table 4.17

***Table 4. 17***

***Challenges facing TVET institutions in producing graduates with employable skills.***

	Freq	Percent
Derisory facilities	5	100.0%
Outdated tools and equipment	4	80.0%
Inadequate attendance to workshops seminars	4	80.0%
Limited industrial attachment for trainers	2	80.0%
teacher-cantered instructional strategies	2	40.0%
N	5	

All the principals (100.0%) indicated that the institutions a myriad problems, which include derisory training equipment and facilities, inadequate well-trained trainers and limited industrial attachment for students, and limited in-service training for trainers. Most of the respondents (80%) showed that they encountered insufficient up-to-date training resources and poor support from the relevant stakeholders. The findings correspond with Maingi (2019) who indicated that TVET institutions faced a myriad of challenges ranging from derisory

training facilities, limited industrial attachment for trainers, and obsolete training equipment. Therefore, it can be inferred that TVET and vocational institutions in Kilifi are faced with innumerable impediments that adversely affect trainee's acquisition of employable skills in Kilifi County.

#### **4.11 Suggestions to improve acquisition of employable skills by students.**

The researcher sought opinions from the respondents on ways to ameliorate practical skills impartation among students. 100% of the respondent's teachers, principals, and graduates opined full integration of ICT in the curriculum, consistent exposure of trainers to industrial attachment and TVET seminars to enhance career and academic qualifications. Further, the principals suggested that the government should employ more teachers to satisfactorily attend to trainees. On the availability of training equipment instructors, students' principals and graduates pointed out the provision of more modern training equipment to ensure relevant training. On training methods, the principals, instructors, and graduates recommended that teachers should espouse the use of trainee-centered instructional strategies such as problem-solving methods in addition to experimentation and project methods to enhance trainees' understanding. All the respondents (100%) agreed that although the lecture method was commonly used, it stalled trainees' acquisition of employable skills.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents a summary of the findings from the discussions in Chapter four and also gives conclusions, recommendations, and suggestions for further study based on the objectives of the study and the research questions.

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

The main aim of the study was to examine institutional factors and student's acquisition of employable skills in technical, vocational education, and training institutions in Kilifi County, Kenya. Four objectives guided the study: To determine the relationship between courses offered in TVET institutions and acquisition of employable skills among students, establish the relationship between training and learning resources and students acquisition of employable skills, establish the relationship between training methods and acquisition of employable skills by students in TVET institutions, assess the relationship between trainer's qualifications and students acquisition of employable skills TVET institutions. The study targeted one TVET institution and four vocational training colleges in Kilifi County.

Descriptive survey design was adopted for the study. Questionnaires were used for trainers and students while interview guides were used for graduates and principals as the research instruments Instrument reliability was determined by piloting the questionnaires after which Pearson's Product formulae were

computed. Both descriptive, inferential, and quantitative statistics were used to analyze the raw data after coding it into themes and concepts. Using. Analysis of the data was done using both Excel and Statistical package for social scientists (SPSS. Charts, frequency tables, and percentages were used to present data. The outcomes helped the researcher to form the recommendations of the study.

As regards the relationship between courses offered in TVET and students' acquisition of employable skills, the findings of the study demonstrated the existence of a significant relationship. The findings show that the courses offered were relevant to the labor market, increased their acquisition of practical skills, and improved quality orientation and creativity. All the respondents also agreed that career guidance and counseling were inadequately provided in the institutions and thwarted skill acquisition.

The findings of the study pertaining to the relationship between training and learning resources and student's acquisition of employable skills indicated that there was a critical correlation. The study further revealed that TVETs and vocational training institutions had an inadequate provision of technologically relevant training facilities and equipment. Moreover, the study established that libraries and laboratories were defectively equipped. All the respondents coincided that adequate training and learning resources influence trainee's acquisition of employable skills.

Regarding the relationship between training methods and acquisition of employable skills by trainees in TVET colleges, study outcomes revealed that the training methods used by trainers acted as a link to trainee's acquisition of



practical skills. The findings indicated that trainers commonly use project work, lecture, and experimentation which are not fully effective in enhancing skill acquisition. The study revealed that the apropos training approaches that improve skills attainment are experimentation, project work, work-based learning, and field trip and programmed to contribute to their proficiency in the current technological demands.

Regarding the relationship between the trainer's qualifications and students' acquisition of employable skills at TVET colleges, the findings found out that there was a significant correlation between trainers' qualifications and skills acquisition. The findings also pointed out that majority of the instructors employed by the TVETs and vocational colleges had relatively high academic qualifications but needed professional development. Furthermore, a great number of the teachers (55%) agreed that they attended seminars and workshops training frequently to unveil to them new technologies in the world of work.

### **5.3 Conclusion**

The study deduced the presence of a significant relationship between courses offered in TVET and vocational institutions and trainees' acquisition of employable skills. Likewise, the study concluded that the courses were relevant to the job market needs and enhanced trainees' creativity. However, the study culminated that career guidance and counseling were unstructured and ineffective. Thus, the study concluded that inadequate career guidance could be the root cause of the lack of interest in the training by students depicted by low enrollment rates in Kilifi County.

Secondly, the study came to the supposition that there was a remarkable correlation between training and learning resources and student's acquisition of employable skills. Despite that, the study deduced that the institutions had inadequate facilities such as workshops, laboratories, and classrooms and outdated equipment. Thus, it was inferred that derisory training and learning resources led to the poor acquisition of employable skills by students in TVET and vocational institutions in Kilifi County.

The study also concluded that there was a noteworthy relationship between training methods and the acquisition of employable skills by trainees in TVET colleges. The study concluded that the commonly used training methods were experimentation, project work, and lecture. However, programmed instruction, case study field trips, and work-based learning were rarely used. The study concluded that training methods were not satisfactory in imparting practical skills among the trainees in TVET and vocational institutions in Kilifi County. The study also concluded that there was a pivotal relationship between trainers' qualifications and students' acquisition of employable skills in TVET and vocational institutions. Not only that, the study concluded that the existing instructors were quite qualified and needed to update their skills in TVET and vocational institutions in Kilifi County.

Concerning employable skills acquired by trainees and graduates, the study concluded that trainees had not adequately acquired employable skills. The findings show that employable skills such as creativity, innovation, problem-solving, and ICT have not been adequately imparted to students and graduates in

TVET institutions and vocational training colleges. The results also connote that developing employable skills in trainees is very crucial as it enables them to be gainfully employed and productive. The study concluded that if these skills are dully adopted in youth training, the country would propel to sustainable economic development.

#### **5.4 Recommendations**

There is a popular statement that says: “The foundation of every state is the education and training of its youth”. TVET by its nature requires consistency in quality delivery. In reference to the findings of this study, the researcher comes up with the following recommendations:

- i. Employment of graduates is the absolute intent of TVET and vocational training. TVET institutions, governments, and industries should establish a collaboration to be used to enhance trainee acquisition of employable skills thereby increasing employment chances in Kenya.
- ii. The shortage of institutional facilities and equipment is the core element for upholding the quality of training provided. The government, relevant stakeholders in technical training, and directors of privately owned vocational institutions should procure and provide relevant training resources and facilities to enhance trainees' acquisition of employable skills in Kenya.
- iii. The primary functions of TVET are its orientation towards the world of work and the emphasis of the curriculum on the acquisition of practical skills. Therefore, the TVET and vocational training institutions need to

give due attention to demand-driven and market-oriented practical training itself by capacitating its trainers to attend TVET workshops and industrial attachments and also to gain confidence in the use of learner-centered methods.

- iv. There is a need for the ministry of education to develop a policy on trainers' professional development by incorporating frequent industrial attachment, in-service courses, and ICT skills to ensure the teachers apprise their skill and knowledge in Kenya.

### **5.5 Suggestions for Further Research**

Considering the results and conclusions obtained from the research project, it is ostensible that there are institutional factors influencing the acquisition of employable skills by trainees in TVET and vocational training colleges in Kilifi County. There is a need to conduct other studies on:

- i. Non-institutional factors influencing the acquisition of employable skills by trainees in TVET and vocational training institutions in Kilifi County.
- ii. The role of a market-driven training in trainee competency in TVET.

## REFERENCES

- Afeti, G. (2014). Technical and vocational evaluation and training for industrialization in Africa. Lagos: *Research and Resource Forum*.
- Akpomudjere, O. (2019). *Assessment of the factors responsible for lack of employable skills among TVET graduates from Nigerian Universities*. ATBU Journal of Science, Technology, and Education, 7(4), 56-65.
- Anindo.J. Mugambi. M. & Matula. D. (2016). Training Equipment and Acquisition of employable skills by trainees in public Technical and Vocational Education and Training Institutions in Nairobi County, Kenya. International Journal of Advanced Research in Education & Technology (IJARET). Vol 1 page 34
- Assefa, F. (2019). *Assessment on the challenges faced in the delivery of Technical Training for micro and small enterprises': The case of two selected TVET colleges in AA city Administration* (published Doctoral dissertation, AAU).
- Atchoerena, D. & Delluc, A. (2001) Revisiting Technical and Vocational Education in Sub Saharan Africa: *an update on trends innovations and challenges*. Paris.
- Audu, R. (2014). Assessment of the teaching methods that influence the acquisition of practical skills. *Asian social science*, (21), 35-41.
- Ayonmike, C. S. (2016). *Technical vocational education and training in Nigeria for job creation and wealth generation: myths and realities*. ATBU Journal of Science, Technology, and Education, 4(2), 1-8.
- Bakar, A. R., Mohamed, S., & Hamzah, R. (2013). *An Assessment of Workplace Skills Acquired by Students of Vocational and Technical Education Institutions*. International Education Studies, 6(11), 15-20.
- Barasa, D. T., & Kwasira, J. (2019). *Influence of availability of learning resources in Youth Polytechnics on youth's economic empowerment in Kakamega County*. The Strategic Journal of Business & Change Management, 6(2), 1606-1618.
- Bennett, R. (2002). *Employers' demands for personal transferable skills in graduates: A content analysis of 1000 job advertisements and an associated empirical study*. Journal of Vocational Education and Training, 54(4), 457-476.
- Best, J.W. & Kahn, J. (2004). *Research in Education, New Delhi: Prentice-Hall of India Ltd.*

- Blumberg, B., Cooper, D. R., & Schindler, P. S. (2008). *Business research methods (Vol. 2)*. London: McGraw-Hill Higher Education
- Bwisa, H. (2014). *Challenges of managing Vocational training centers*. Entrepreneurship Department, Jomo Kenyatta University of Agriculture and Technology, Kenya
- Cohen, L., Manion, L., & Morrison, K. (2013). *Research Methods in. The Handbook of Psychology - Vol2 Methods 2 Specific methods*. [https://doi.org/10.1111/j.1467-8527.2007.00388\\_4.x](https://doi.org/10.1111/j.1467-8527.2007.00388_4.x)
- Danial, J. A. (2014). *Factors Influencing the Acquisition of Employability Skills by Students of Selected Technical Secondary School in Malaysia*. International Education Studies, 7.
- Edokpolor, J. E., & Dumbiri, D. N. (2019). Resource adequacy and utilization for teaching and learning effectiveness in vocational education programmes in south-south Nigerian universities. *Journal of vocational education studies*, 2(1), 1-12.
- Filmer, D., & Fox, L. (2014). Youth employment in sub-Saharan Africa. *The World Bank. For Jobs Review of Norway*.
- Lacovou, M. & Arnstein, A., (2007). Youth poverty in Europe. *York: Joseph Rowntree Foundation*.
- Leka, W. (2017). Youth Employment: *The Impact of Technical and Vocational Education and Training (TVET) in Enhancing Youth Employability in the Labor*.
- Ifeyinwa, M. C., & Serumu, I. (2016). *Constraints and remedy to quality vocational skills development among vocational education students in Nigeria as perceived by vocational educators*. *Journal of Innovative Practice in Vocational Technical Education (JIPVTE) Vol, 1(1), 016-023*.
- Indoshi, F. C., Wagah, M. O., & Agak, J. O. (2010). *Factors that determine students' and teachers' attitudes towards Art and Design curriculum*. *International Journal of Vocational and Technical Education*, 2 (1), 9-17.
- Kerre, B. W. (2017). *The Role of TVET in Africa's Development Agenda*. *Africa Journal of Technical and Vocational Education and Training*, 2(1), 2-14.
- Kigwilu, P. C., Akala, W. J., & Wambua, J. M. (2016). *Challenges facing the effective implementation of Artisan and Craft courses in Catholic sponsored community colleges in Nairobi, Kenya*.
- Kothari, C.R. (2005). *Research Methodology. Methods and Techniques. 2nd ed.* New Delhi. Age International Ltd.
- Kiruga, A. M., Wandago, B. O., & Miano, K. (2018). *An Investigation on Youth Employability Skills in TVET Institutions in Mombasa County*. *Africa Journal of Technical and Vocational Education and Training*, 3(1), 78-93.

- Kumar, R. (2019). *Research methodology: a step-by-step guide for beginners*. Los Angeles: Sag
- Maeko, M. & Makgato. M. (2014). *Strategies to Improve Technical and Vocational Education and Training*. *Journal for Transdisciplinary Research in Southern Africa*, 323-339.
- Mangoche, T. (2014). *Impact of Technical and Vocational Education and Training (TVET) on Youth vulnerability in Malawi*. Published Masters Project, University of Reading.
- Mugenda, O.M & Mugenda, A.G. (2003). *Research Methods – Quantitative and Qualitative Approaches*. Nairobi: Act Press.
- Munishi, D., & Emmanuel, J. (2016). *Factors contributing to lack of employable skills among technical and vocational education (TVET) graduates in Tanzania*.
- Muya, M.T, et al (2016). *Curriculum content and relevance in the integration of ICTs in Kenya TVET institutions in readiness to industry needs*
- Nason, B. V. (2019). *Youth Unemployment among Graduates of Tertiary Institutions in Kenya*. *Africa Journal of Technical and Vocational Education and Training*, 4(1), 84-93.
- Ngcwangu, S. (2015). *The ideological underpinnings of World Bank TVET policy: Implications of the influence of human capital theory on South African TVET policy*. *Education as Change*, 19(3), 24-45.a
- Njoki, M. N. (2014). *Strategies Influencing Production of Middle-Level Workforce in Public Technical, Vocational Education, and Training Institutions in Nairobi Region, Kenya*.
- GOK (2012). *Sessional Paper No 14, Reforming Education and Training Sectors in Kenya*, Government Press, Nairobi
- Orangi, A. K., Wandaka, I. W., & Ngige, L. W. (2016). *Analysis of Infrastructural Support and Trainer attributes in TVET institutions in Kenya*. *Africa Journal of Technical and Vocational Education and Training*, 1(1), 41-52.
- Osidipe, A. (2017). *Prospects for TVET in Developing Skills for Work in Nigeria*. *Prospects*, 8(21).
- Oson, W.Y & Onen, D. (2009). *A general guide to writing research proposal and report*. Nairobi: Jomo Kenyatta Foundation.
- Serumu, I. (2015). *Challenges of implementing technical and vocational education and training (tvET) curriculum in Delta State Colleges of Education*. *Global Advanced Research Journal of Educational Research and Review*, 4(5), 072-080.

- Tumba, I., & Shuaibu, (2016) H. *Strategies for Improving Students' Acquisition of Practical Skills in Electrical Installation and Maintenance Work Trade in Technical Colleges in Kano State*
- Udofia, A. E., Ekpo, A. B., Nsa, S. O., & Akpan, E. O. (2012). *Instructional variables and students' acquisition of employable skills in vocational education in Nigerian technical colleges*. *Mediterranean Journal of Social Sciences*, 3(14), 118-127.
- World Bank report, (2015). Kenya's Education Achievement and Challenges. Daily Nation 2nd October 2015.
- Yewah, C. O. (2015). *Institutional Factors Influencing Quality Training in Technical, Vocational and Entrepreneurship Training in Siaya Sub-County. Region, Kenya*
- Youth department report, (2015). Challenges of youth education and training in Kilifi County. 13th December 2015.
- Yorke, M. (2010). Employability: Aligning the message, the medium and academic values. *Journal of Teaching & Learning for Graduate Employability*, 1(1) 2-12.



## APPENDICES

### Appendix I: Letter of introduction

University of Nairobi,

P.O BOX 92.

KIKUYU.

June/July 2020

THE PRINCIPAL,

Dear Sir/ Madam,

#### **RE: PERMISSION TO CARRY OUT RESEARCH IN YOUR SCHOOL**

I am a student at the University of Nairobi undertaking an educational research study in TVET institutions in Kilifi County. The study is designed to gather information on the institutional factors relating to student acquisition of employable skills in TVET institutions. Please note that any information given will be used for research purpose only and your identity will be treated with utmost confidentiality. Thank you for your cooperation.

Yours faithfully,

Mumbe Kailo.

E55/9396/2017

Postgraduate student; University of Nairobi

**Appendix II Questionnaire for TVET/ Vocational Colleges Trainers**

This questionnaire is designed to gather information about the factors that influence the acquisition of employable skills in the area you are teaching. Do not indicate your name or anything that could lead to identification. Please respond to all the questions appropriately, for structured questions, use the spaces provided. Thank you.

**Section A: Personal Details**

1. What is your gender? Male [ ] Female [ ]
2. What is your age in years? .....
3. What is the Name of your department.....

**Section B: Courses Offered and Acquisition of Employable Skills**

4. To what extent do you agree with the following statements? **Use a scale of 1-5 where: 1 (strongly disagree), 2 (disagree), 3 (moderately agree), 4 (Agree) 5 (strongly agree)**

S/NO	Statements	1	2	3	4	5
1	Courses offered are relevant in the job market					
2	The institution works closely with industry					
3	Courses offered in TVET enhance quality orientation and creativity in the job market					
4	Guidance and counseling services are adequately provided					
5	Creative skills and use of ICT in TVET enhance quality and creativity in the job market					

5. List three courses you consider most relevant that offer employable skills. Start with the most relevant.

- i)
- ii)
- iii)

**Section C: Training and Learning Resources and Acquisition of Employable Skills**

6a. To what extent do you agree with the following statements? **Use a scale of 1-4 where: 1 = (strongly disagree, (SD), 2 = (Disagree- (D), 3 = Neither agree nor Disagree , 4= agree – ( A), 5=(strongly agree- (SA)**

S/N	Item	SA	D	NA nor D	A	SA
1.	There is an adequate and relevant provision of training course books and reference materials					
2.	The workshops and libraries are well equipped in the institution					
3.	The training equipment is up to date/relevant to the industrial equipment					
4.	The nature and availability of training equipment influence the acquisition of relevant employable skills					
5.	Laboratories and workshops influence trainees' acquisition of employable skills					

6b. In your own opinion, how does the availability of training equipment influence the acquisition of employable skills by students in your institution?

i].....  
.....

ii].....  
.....

**SECTION D: Training Pedagogy on the Acquisition of Employable Skills**

7. How often do you use the following training methods? Use a scale where: 1(Never) 2(Rarely) 3(often) 4(always)

S/NO	Teaching method	NEVER	RARELY	OFTEN	ALWAYS
1	Case study				
2	Role play				
3	Experimentation				
4	Field trip				
5	Problem-based learning				
6	Project learning				
7	Work-based learning				

7c. In your own opinion, how does teaching pedagogy influence students' acquisition of employable skills in the institution?

i].....  
.....

ii].....  
.....

**SECTION E: Trainers Qualifications and Acquisition of Employable Skills**

8. What is your highest level of education qualification?

Certificate in Technical education [ ] Diploma in Technical education [ ]  
 Bachelor’s degree [ ] Masters [ ] Ph.D. [ ] others (specify).....

9. What is your teaching experience? 0-5 [ ] 6-10 [ ] 11-15 [ ] 16-20 [ ] 21 and above

10. Did you carry out industrial attachment during your training? A. Yes [ ] b.No [ ]

If yes, how does it affect you in imparting employable skills to your students?  
 .....

11. How often do you attend seminars/workshops on TVET?

Very Frequently 4[ ] Frequently 3 [ ] Less Frequently 2 [ ] Seldom 1 [ ]

12. Does your academic qualification influence student’s acquisition of employable skills? Yes [ ] No [ ]

Explain your answer.....

**SECTION F: Acquisition of Employable skills**

To what extent do you believe that the trainees have acquired the following skills?  
**Use a scale where 0- not at all, 1- small extent, 2-moderate extent, 3-great extent, and 4 very great extent**

S/NO	Employable skills	0	1	2	3	4
1	Personal qualities(responsibility, honesty, integrity)					
2	Interpersonal skills					
3	Creativity and innovative skills					
4	Problem-solving skills					
5	Communication skills					
6	Basic skills( reading, writing, speaking, listening)					
7	Adaptability and work ethics					
	Professionalism					

**Thank you for your valuable contribution.**

### Appendix III: STUDENTS QUESTIONNAIRE

This questionnaire is intended to gather information on institutional factors and the acquisition of employable skills by students in TVET Institutions in Kilifi County. Please do not write your name anywhere on this questionnaire. Please answer the following questions by putting a tick [√] in the appropriate box or by writing in the space provided.

#### Section A: Demographic Information

- 1) What is your gender? Male [ ] Female [ ]
- 2) What is your age in years? Below 20 [ ] 21-25 [ ] 26- and above [ ]
- 3) What is your level of study? Higher Diploma [ ] Diploma
- 4) Which course are you pursuing?

#### Section B: Courses Offered and Acquisition of Employable Skills

5. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1 (Strongly Disagree –SD), 2 (Disagree-D), 3 (Agree-A) 4(Strongly Agree-SA)

S/NO	Item	SD	D	A	SA
1	Training offered at TVET institution is relevant to the existing labor market demands.				
2	TVET courses provide chances of acquiring new skills				
3	Career guidance and counseling helps students in making informed choices before enrolling for courses TVET institutions				
4	Creative skills and use of ICT in TVET enhance quality and creativity in the job market				

6. List three courses you consider most relevant that offer employable skills. Start with the most relevant.

- i)
- ii)
- iii)

#### Section B: Training Equipment on the Acquisition of Employable Skills.

7 a . To what extent do you agree with the following statements? Use a scale of 1-4 where: 1 = (strongly disagree, (SD), 2 = (Disagree- (D), 3 = Neither agree nor Disagree, 4= agree – ( A), 5=(strongly agree- (SA)

S/NO	Item	SD	D	NA nor D	A	SA
1	There is adequate and relevant training equipment for practical training					
2	The training equipment is relevant to the one used in industries					
3	The workshop, classes, and laboratories are well equipped with modern training equipment					
4	There is adequate time allocation for practical's					
5	Inadequate training equipment negatively affect the acquisition of skills					
6	The relevance of training equipment influence the acquisition of employable skills					

b. In your own opinion, explain how the availability of adequate training equipment influence your acquisition of employable skills in your college

.....

### Section C: Training Pedagogy and Acquisition of Employable Skills

8 a. The table below shows the influence of training pedagogy on student's acquisition of employable skills statements. Indicate by ticking (✓) the level at which you agree. Use a scale where SA- strongly agree, A- agree, N-Neutral, D- disagree and SD-strongly disagree

S/N O	Teaching method	SA	A	N	D	SD
1	Project learning is common in your course					
2	Experimentation method is common					
3	Role play is very common in your course					
4	Work-based learning is widely used in your area					
5	case study is commonly used					
6	Programmed instruction is common in your course					

8b. which of the above training methods influences your acquisition of employable skills?

.....

**SECTION D. Acquisition of Employable skills**

11. To what extent do you believe you have acquired the following skills? Use a scale where 0- Not at all, 1- Small extent, 2-Moderate extent, 3-Great extent, and 4 Very great extent

S/NO	Employable skills	0	1	2	3	4
1	Personal qualities (responsibility, integrity)					
2	Interpersonal skills					
3	Creativity and innovative skills					
4	Problem-solving skills					
5	Written and spoken communication skills					
6	Basic skills( reading, writing, listening, speaking)					
8	Professionalism					

**Thank you for your contribution**

## **Appendix IV: INTERVIEW GUIDE FOR PRINCIPALS**

This interview is intended to gather information on institutional factors influencing the acquisition of employable skills by students in TVET Institutions in Kilifi County.

### **Section A: General Information**

1. How long have you served as a principal in this institution?
2. What is your highest academic qualification?
3. Are you aware of the employable skills required by current employers? If yes, which ones?
4. In your opinion, what are the major challenges you are facing in the institution in producing graduates with employable skills?

### **Section B: Influence of institutional factors on the acquisition of employable skills.**

5. What courses do you offer in your college?
  - i). To what extent do the courses offered in your institution provide graduates with chances of acquiring employable skills?
  - ii). Does your institution adequately provide for guidance and counselling services?
  - iii). In your opinion, is the current TVET curriculum in tandem with the labour market demands?
6. How does the availability and nature of training equipment influence acquisition of employable skills by your students?
  - i). Are all your facilities/equipment technologically relevant to the current job market/industry? If not, how do you ensure students acquire relevant hands-on skills for use after exiting the institution?
7. What are the most commonly used teaching methods in the delivery of the curriculum by the teachers?
  - i) How do these methods influence acquisition of employable skills by the students?
8. To what extent does your institution support the professional development of teachers? What challenges do you face in doing this as an institution?
9. In your own opinion, what do you think can be done to improve trainee's acquisition of employable skills in Kilifi County?

**Thank you for your contribution.**



## Appendix V: Interview Guide for Graduates

This interview is intended to gather information on institutional factors influencing the acquisition of employable skills by students in TVET Institutions in Kilifi County.

### Section A: General Information

1. When did you graduate from college?
2. Which course did you pursue?
3. In your own opinion, do you think that the training prepared you adequately for the current job?

### Section B: Influence of institutional factors and acquisition of employable.

4. How relevant were the courses offered in the institution in the current labour market?
  - i) How did you find the process of getting a job?
  - ii) Would you advise others to join technical and vocational institutions?
5. How did the availability and nature of training equipment influence acquisition of employable skills?
  - i) Were the facilities/equipment technologically relevant to the current job market/industry?
6. What were the most commonly used training methods in the delivery of the curriculum by the trainers? How did these methods influence the acquisition of employable skills by the students?
7. To what extent did the TVET institution's training helped you to develop the following employable skills? **Use the scale of 4=Very high extent, 3=High extent, 2=some extent 1=Not at all**

S/NO	Employable skills	4	3	2	1
1	Personal qualities( responsibility, integrity)				
2	Interpersonal skills				
3	Creativity and innovative skills				
4	Problem-solving skills				
5	Written and spoken communication skills				
6	Basic skills( reading, writing, listening, speaking)				
7	professionalism				


10. Which skill do you need most in your job?

i) Which skill did the employer emphasize when you were looking for a job?


ii) What do you think can be done to ensure the proper acquisition of employable skills?

**Thank you for your contribution.**

# Appendix VI: Research permit




REPUBLIC OF KENYA  
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Ref No: 222087  
Date of Issue: 13/August/2020


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