

---

# INTERNATIONAL JOURNAL OF SCIENCE ARTS AND COMMERCE

---

## ASSESSMENT OF TUTORS' QUALIFICATION AND TRAINING NEEDS IN TECHNICAL VOCATIONAL EDUCATIONAL AND TRAINING INSTITUTIONS OFFERING TEXTILE TECHNOLOGY COURSES

**Kwamboka Ann Orangi & Kimemia Millicent Wamuyu**  
School of Hospitality  
KIRINYAGA UNIVERSITY

---

### ABSTRACT

*Technical training Institutes and institutes of technology were upgraded to Technical Vocational Education and Training Institutes, TVET in 2007 but continued to use tutors that previously served in the former institutes. This presents a qualification gap given that not all teachers were having advanced competencies and skills requisite to managing programmes in TVET Institutions. This study assessed Teachers qualification and training needs in TVET offering textile technology courses. A descriptive survey was undertaken in 8 technical institutes and 10 institutes of technology, offering textile technology courses and examined by the Kenya National Examinations Council. A total of 452 respondents' comprising principals, deputy principals, tutors, technicians were included in the study. Data was collected using Questionnaires and Interviews, analysed by Statistical Package for Social Sciences (SPSS) and presented in form of frequency tables, bar graphs, and pie charts. Results showed that tutors were academically qualified for the jobs they were undertaking; with 8% were holding masters degrees in fashion design and textile technology, 14% Bachelor of degrees, 58% Diploma in Technical Education, 10% Diploma in Education, and 10% Diploma in textile technology respectively. Those with Masters Degrees and Technical diplomas were teaching Diploma and certificate courses and those with Diploma in Education were teaching artisan courses. Because of the recent changes in technology and the fact that TVET Institutions are currently preparing students for progression to bachelor degree levels and higher, there is need for institution of tutor training at advanced levels particularly to Masters degree levels to prepare them better for the changing technologies and processing of students for higher levels of training in the discipline.*

**Key words:** Tutors qualification and Training needs

### 1.2 INTRODUCTION

Globally Technical and Vocational Education and Training (TVET) are an education, training or learning activity which provides knowledge, skills and attitudes relevant for employment or self-employment. TVET describes all kinds of formal, non-formal and informal training and learning wherever it occurs as institutes, schools, training centers' or in the workplace/site of production, Bureau of Manpower, Employment and Training (BMET), (2014) also indicated that the Program works to strengthen national and provincial structures within the TVET sector and builds the capacity of local training providers to deliver courses focused on employment and income-generation outcomes within a nationally recognized framework, Nyerere, J. (200).

### **TVET in Kenya**

Kenya is no exception to the global trends affecting the workplace. Kenya's general election crisis of December 2007 highlighted the problems of a large population of unskilled, unemployed youth amidst growing poverty. To address some of the underlying causes of the restlessness among youth, the government made initiatives for skills development. This includes investment within the framework of the Kenya Education Sector Support Programme 2005-2010 (KESSP). KESSP states the aims and purpose of TIVET in Kenya to include:

- ✓ Involvement of stakeholders in the development of a national skills training strategy
- ✓ Establishment of mechanisms and appropriate incentives to promote private sector investments in the development of TVET for increased access.
- ✓ Provision of loans and bursaries to enhance access to TVET taking special account to marginalized groups, such as female students and the physically challenged.
- ✓ Establishment of a national coordinating body, the Technical, Industrial, Vocational and Entrepreneurship Training Authority (TVETA) for TVET institutions in order to provide relevant programmes and effective management and governance.
- ✓ Mobilization of resources to rehabilitate facilities in public TVET institutions to ensure quality training. TVET Report, (2011).

In the Vision 2030, the government's focus is to eliminate poverty and empower Kenyans to enjoy quality and decent livelihoods. Education is identified as one of the key component in the social pillar of the Government's strategy of Vision 2030 (GoK 2007). TVET graduates must be trained on the use of modern equipment they might have but are not available in training institutions, MOEST (2007). In the Kenyan context, however, there is the feature that in reality only a minority of the graduates do find employment in large organizations that operate at levels that are comparable to others globally. The majority of the graduates find employment within the informal sector or within small establishments that might still operate on older technological systems. Institutions at the very best can only hope to provide learners with the basic principles and skills and leave the final fine tuning of competencies to the workplaces that the learners will find themselves. For these individuals the entrepreneurship course that is now compulsory in all TVET institutions would come in handy as they grope for a foothold in a very competitive environment Kitainge, K.M. (2003).

According to MOEST (2009), Kenya is characterized by a mismatch between skills acquired through the training programmes and those demanded by the labour market because of lack of competencies and skills to managing new programmes in TVET Institutions. Since independence, there have been several Commissions on education and training such as Ominde (1965), Ndegwa (1971), Mackay (1981) and Koech (2000) that recommended actions with varying implications on skills development. The reports have largely been concurrent in their calls for skills training that result in social integration, economic growth, national unity, poverty eradication and reduction of social inequality, among others.

MOEST,(2007) indicates that TVET is critical in the development of Textiles industries, human resource, and high quality training services must be delivered within the value chain, in order to enhance productivity and competitiveness, (Harvey, 2001). Today's climate of globalization, advanced technology, high skills and demand for quality goods and services at competitive prices, driven by the demand for greater market share, are factors that have shaped all nations' economies, especially that of the United States. The need for skilled workers and a productive workforce has been part of public policy development concerning education and workforce development within the United States for years. Michael W. H, (2001).

In Kenya, as in many countries, education and training are seen as the fundamental pillars for building human resource foundation for socio economic development, and for enhancing the ability to create employment, innovation and wealth (KESSP, 2005). The Government of Kenya has invested heavily and is also well aware of the potential benefits of technical education. Poverty Reduction Strategy Papers (2005). The collapse of textile industry left the sector at the mercy of wasteful and unnecessary competition from corridor dress makers and tailors, imports of second hand clothes (Mitumba) and China made clothes MOEST, (2007) indicates that top on the agenda was to revival the programme by identifying and developing skilled manpower in TVET institutions.

Recent initiatives related to TVET have tremendously picked up following increased sensitization workshops for institutional managers, capacity building programs for Heads of Departments (Holds), and training of lecturers to teach technical subjects that are in TVET institutions, under the MOEST (2007). Institutional managers have been organizing their own capacity building programs for lecturers, to adopt Information Communication Technology (ICT) in teaching and learning. The clothing and textile courses in Kenya have been designed to train professionals that are able to manage the production of manufactures or designer's products to the right quality and quantity, which can compete equally with international production teams, service purchasers, suppliers and clients.

### **1.2 Problem Statement**

Republic of Kenya (2004), Sessional Paper number 6, calls for the development of a National Skills Training Strategy and the establishment of the National TVET Authority. The objective of TVET is to provide and promote life-long education and training for self-reliance, which may be slowed down, owing to lack of capacities in TVET institutions to cater for graduates of primary and secondary education, wishing to undertake higher level TVET related courses. However, despite Government intervention through TVET

programmes, the Ministry of Higher Education, Science and Technology (2009) noted that Kenya is lacking capacity that will be able to train TVET programmes and those currently training need to upgrade their skills to be relevant in line with the current technology. Without appropriately skilled employees, technical staff and management, the Textile industries will not be locally and internationally competitive, an aspect that has not been fully evaluated. This study therefore, set out to fill the existing information gap, by assessing the qualification and training need in TIVET institutions in Kenya.

### **1.3 Significance of the study**

By assessment of qualification and training needs in TVET institutions

#### **TVET Institutions**

The institution will be able to employ the right qualified teachers for TIVET programmes. It will help TVET institution to identify the key and urgent training needs for their Tutors. A major output of the study will be a recommendation on intervention measures to improve the training and skills development of tutors in TVET institutions.

#### **Policy Formulators**

They will be in a position to come up with strategies to ensure that TVET institutions are provided with skilled human resources to ensure efficiency and effectiveness in training.

#### **Other Researcher**

They will be able to pick the topics that have been recommended for further research and research on them after dissemination of this study.

#### **Government**

It will be in a position of increasing funds for policies and any training identified.

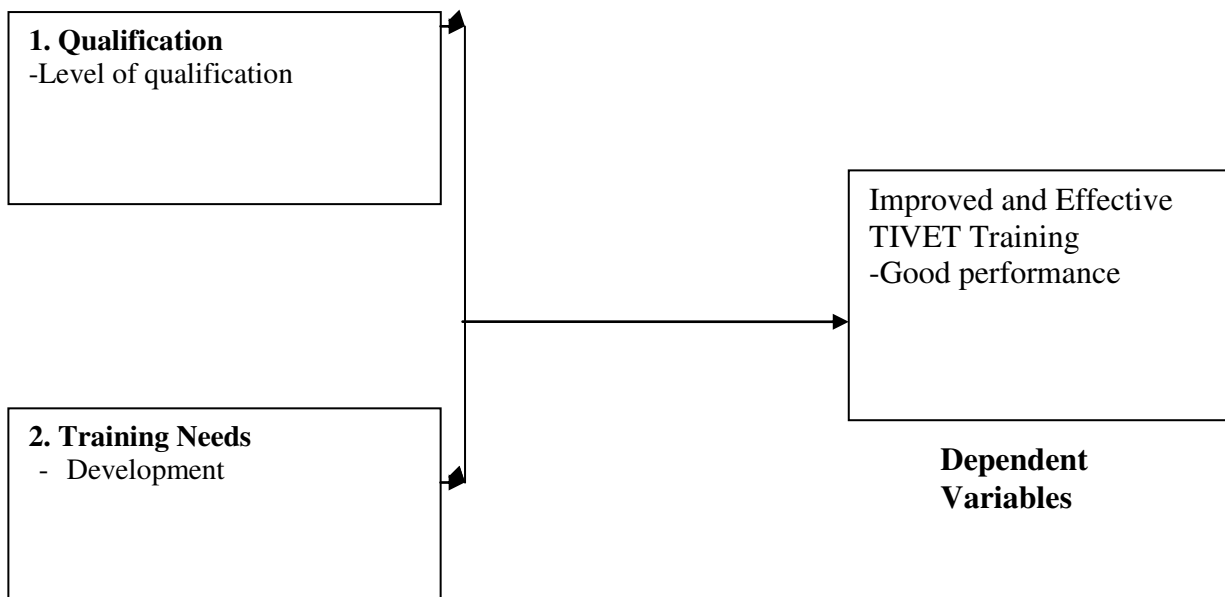
### **1.4 Objectives of the Study**

The study was guided by the following objectives:

1. To establish professional qualifications of staff in selected TVET institutions offering clothing technology courses.
2. To determine training needs of staff in the selected TVET institutions offering clothing technology courses.

### **1.5 Conceptual Framework**

The conceptual framework attempts to assess the qualification and training needs in technical and vocational education and training (TVET) institutions offering clothing technology courses in Kenya. The conceptual framework shows the relationship between the variables of the study. The independent variables for the study were qualification and training needs and the dependent variable was improved and effective TVET training.



### Independent Variables

**Figure 1.1 Conceptual Framework of the Study**

In the conceptual framework presented in Figure 1.1, qualifications of teachers, their skills, content knowledge and training needs will affect the training which will or not Improved Effective TIVET Training.

## LITERATURE REVIEW

### 2.1 Global Overview TVET

UNESCO leads the global debate by advocating for the rethinking of TVET to enhance its role in developing more equitable and sustainable societies. From 14-16 May 2012 UNESCO convened the Third International Congress on TVET in Shanghai, 'Transforming TVET: Building Skills for Work and Life', which resulted in the adoption of the Transforming technical and vocational education and training (TVET): Developing TVET should be a top priority in the quest to build greener societies and tackle global unemployment, concluded participants at the 3rd UNESCO TVET Congress that ended in Shanghai on 16 May 2012. More than 500 representatives from 107 countries attended the Congress, which looked at ways of transforming TVET to make it more responsive to the needs of 21st century, UNESCO (2012). Nguku Everlyne (2012) posited that empowering vocational and technical education teachers and students through educational curriculum reforms is of great importance in Nigeria because vocational and technical education training of teachers had no philosophy that would provide unity and direction of their practice. He further stated that the delivery of education in Nigeria has suffered from year of neglect, compounded by inadequate attention to policy framework within the sector. Findings from an ongoing educational sector analysis confirm the poor state of education in Nigeria.

## **2.2 Teachers qualifications in TVET institutions**

When considering growth in technology, the development of the human capital is paramount Fajonyomi, (2007). This view is in line with Ogbazi (1987) who noted that the problem of industrial development in Nigeria is inadequacy of sufficiently trained human resource, which had been a major constraint on the rate of technological and economic development of the country.

The issue of professionalism in teaching has been on course for quite some decades in Kenya. Various scholars have researched on the need for skilled teachers to effective learning. Fajonyomi (2007) emphasized that the success or failure of any educational programme rests mainly on adequate availability of qualified, professional, competent and dedicated teachers. Okuni (2000) noted that various researches had been done in support of the relationship between student performance and teachers qualifications. Eshiwani (1983) found lecturer characteristics to be among those factors which influenced academic success.

Lubben and Campbell (2002) observed that majority of clothing and textile lecturers in high school and technical institutions were not qualified to teach and prepare students for examinations in clothing and textiles courses under TVET programmes, thereby, pointing to the need for re-training. However, Kanga, (1994) and Sigot (1987) noted that most lecturers expressed lack of interest and competence. Muthoka (1994) observed that a lecturer who is interested in his or her subject was more likely to yield better results, compared to a well trained, qualified but disinterested one.

Mwangi (2008) indicated that in TVET institutions set up, trainers' instructional ability and content knowledge in clothing and textiles courses is perceived to have an impact on students' understanding of the courses, since professional education and training impacts on the performance of trainees.

Mwangi (2008) observed that one of the qualities of a good lecturer was not sufficient knowledge of the subject matter content but qualifications. She also noted that students appreciate when they see their lecturer as someone who helps them in understanding issues, both theoretically and practically, which seem difficult. KIE report (1990), found that students thought of some subjects as being difficult because their lecturers were unprepared and not competent in the subject. Kathuri (1993) noted that student performance skills development was positively and significantly correlated to the quality of lecturers and that there was a distinct relationship between quality of staff in a particular institution and the performance in skill development in that institution. This study established that members of teaching staff in the selected institutions were adequately trained, to tackle professionally industrial and technical training curriculum in clothing and textiles.

### **2.2.1 Other qualifications**

National board of Education, (2009) noted that designers must have a strong sense of the esthetician eye for color and detail, a sense of balance and proportion, and an appreciation for beauty. In addition to creativity, fashion designers also need to have sewing and



patternmaking skills, even if they do not perform these tasks themselves. Designers need to be able to understand these skills so they can give proper instruction in how the garment should be constructed. Fashion designers also need excellent communication and problem-solving skills. Despite the advancement of computer-aided design, sketching ability remains an important advantage in fashion design. A good portfolio a collection of a person's best work often is the deciding factor in getting a job. Michael W. H, (2001).

### **2.2.2 MOEST-led policy reform**

Important policy guidelines for all education and training sectors are contained in the Sessional Paper No.1 of 2005, "Policy Framework for Education, Training and Research" and action plan, Kenya Education Sector Support Programme {KESSP} 2005. The two papers recognize education as a key contributor to industrial development. In connection with TVET, the Sessional paper (2005) It calls for the development of a National Skills Training Strategy and the establishment of the National TVET Authority. The paper also suggested administrative and substantive service reforms that include encouraging private sector investment, review of current delivery mechanisms, labour market survey and skills needs assessment, audit of TVET institutions, review of the curriculum, and development of adequate infrastructure.

### **2.3 Education and Training in TVET**

Africa D. F. (2015) indicated that access to credible and reliable TVET data for planning and policy decisions is a challenge. The project will support creation of a sub-sector TVET Education Information Management System (EMIS) at the Ministry The current EIMS is focused on 'inputs' and skewed towards primary and secondary education data. Phase II of the project, will also facilitate theTVETAuthority to develop training manuals for accreditation and standards regulations; support tracer studies for identified TVET trade areas; develop TVET gender guidelines; and refresher trainings for TTIs management in GoK accounting and procurement regulations as well as awareness of TVET Act, 2013 requirements.

#### **2.3.1 Needs Assessment**

Africa D. F. (2015) described that project's envisaged results are to contribute to enhanced quality and relevance of TVET programs in line with the TVET Act of 2013 provisions; and to support increased access (enrolment) in engineering and applied sciences TVET Programs to meet the immediate and emerging labour market demands. Kenya's unemployment is currently estimated at 40% of which 80% are youth. At the same time, Kenya lacks critical middle level skills in the immediate and emerging labour market to meet the demand side needs of the employment equation.TVE sector plays an important role in meeting the skills demands for the labour market. Kenya is experiencing a skewed skill mix particularly among university graduates, technicians and artisans. For example, the ratio of technicians and associate professionals to craft and related trades workers for machine operators and assemblers in the industry is 33:1:2 respectively. This skills gap therefore requires urgent

actions in equipping post primary and secondary youths as well as out of school youth with middle level skills for the labour market. Africa D. F. (2015).

Training is a strong determinant of achieving the objectives of a programme such as Technical Vocational Education and Training (TVET). This is so because the outcomes or products of that programme can be use to judge the effectiveness of such programme. However, from series of report from the labour market (such as the International Labour Organisation) on the status of TVET graduates in Africa, is that TVET graduates do not possess employable skills. This non-possession of employable skill is as a result of TVET delivery system in Africa; which is characterized by inadequate human and material resources amongst others. It is against these backdrops that this paper tends to address these inadequacies. Specifically, the training needs of personnel in TVET institutions in Africa will be the focus of this paper, which will help to tackle the problem of TVET graduates not possessing employable skills Odu, O.K. (2011).

Ayonmike, Ch, S., (2014) Recommended that retraining remains a vital tool in the revitalization of TVET in Africa. In revitalizing TVET in Africa, greater consideration must be made in the development of personnel in TVET institutions. This can only be achieved through training and retraining programme. The following strategies for training and retraining of personnel in TVET institutions were recommended, which might help in producing competent TVET graduates in Africa. Ayonmike, C, S., (2014)

### **2.3.2 Technical Education in Clothing and Textile**

In the absence of official guidelines on skill offered, it is not clear whether the quality and subjects provided by these institutions are adequate and fit for the labour market, demand for technical education in clothing and textile course should be in line with the market demand in skills developed. Basing TVET institutions on the economy of the nation, this research therefore evaluated the challenges to the Training Institutions in terms of the professional qualification of the trainers and the training needs in the delivery of curriculum in the Training Institutions in Kenya. (Harvey, 2001).

Clothing and textile designers typically need an associate or a bachelor's degree in fashion design. Some fashion designers also combine a fashion design degree with a business, marketing, or fashion merchandising degree, especially those who want to run their own business or retail store. Basic coursework includes color, textiles, sewing and tailoring, pattern making, fashion history, computer-aided design (CAD), and design of different types of clothing such as menswear or footwear. Coursework in human anatomy, mathematics, and psychology also is useful. Virgona, C., Waterhouse, P., Sefton, R., & Sanguinetti, J. (2003).

Aspiring fashion designers can learn these necessary skills through internships with design or manufacturing firms. Some designers also gain valuable experience working in retail stores, as personal stylists, or as custom tailors. Such experience can help designers gain sales and marketing skills while learning what styles and fabrics look good on different people. Designers also can gain exposure to potential employers by entering their designs in student



or amateur contests. Because of the global nature of the fashion industry, experience in one of the international fashion centers, such as Milan or Paris, can be useful. (Harvey, 2001).

### **2.3.3 Current Trends in TVET in Kenya**

Kitainge, K.M. (2003), noted that Technical, Vocational Education and Training (TVET) in Kenya is viewed as the kind of education that provides learners with the technical skills that can be used generally in technical fields. The localized term, Technical, Industrial, Vocational, Entrepreneurship and Training (TIVET) is used to describe all the TVET programmes under the Ministry of Higher Education, Science and Technology. These programmes are designed to prepare skilled personnel for various positions in industry and the informal sector. These subjects differ significantly at different levels. However, the main offering of the TVET subjects is at the National Polytechnics, Institutes of Science and Technology (IST), Technical Training Institutes (TTIs) and Youth Polytechnics. National Polytechnics in Kenya offer diplomas, higher national diplomas and certificate TVET.

Kitainge, K.M. (2003) observed that training of TVET teachers for the various levels and programs have evolved as the TVET has developed in the country. The following section reviews the key training systems that have been put in place over time to meet the needs of the TVET institutions. As stated before the colonial government mandated compulsory vocational training in segregated institution for the Africans. These institutions offered carpentry, tailoring, Dressmaking and agriculture. Teachers of agriculture were prepared in primary school teacher training colleges around the country. Those who taught carpentry and Clothing technology were trained at Kenya Technical teachers college near Nairobi. But it could be expected that they were trained in the trade as well as instructional techniques. Instructors in two year post secondary institutions were usually holders of government trade test in their area of competence. These teachers often lacked pedagogical training.

## **METHODOLOGY**

### **Research Design**

A cross-sectional survey research design was used for the study. The design involved collection of information from a cross section of respondents from TIVET institutes that offer Clothing technology courses across the country.

### **Study Variables**

In this study, the variables considered were lecturers' Qualification and Training needs

### **Location of the Study**

The study was carried out in 18 TVET institutions in Kenya that offered Clothing and textile courses.

### **Target Population**

The study population comprised of 37 TVET institutions in Kenya. The target was 36 principals and deputy principals, 398 tutors, 18 technicians.

### **Inclusion Criteria**

The study included only TVET institutes offering clothing and textile courses and administering the Kenya National Examinations Council (KNEC) examinations. From the staff sample, only those in the ranks of principals and deputy principals, lecturers and technicians were included in the study

### Exclusion Criteria

The study excluded all TVET institutions not offering clothing technology courses and also those that administered internal examinations only.

### Sampling Technique

The researcher used the multi-stage sampling procedure to select the study participants. According to Mugenda and Mugenda (2003) multi-stage sampling procedure is appropriate where sampling is done at different levels in a hierarchical order. The first stage involved identifying a national sample of all 37 TVET institutions that offered diploma courses. The second stage involved identifying 18 TVET institutions that offered Clothing Technology courses at diploma level. In the third stage, all the principals, deputy principals, lecturers and technicians in the 18 TVET institutions were selected to participate in the study.

**Table 3.1: Sampling frame**

Description	Population (N)	Sample (n)	Actual sample size
TIVET Institution Offering Clothing Technology Courses	18	18 (100%)	18 (100%)
Principals	18	18 (100%)	18 (100%)
Deputy Principals	18	18 (100%)	18 (100%)
Technicians	18	18 (100%)	18 (100%)
tutors	398	398 (100%)	398(100%)

### Research Instruments

Three types of research instruments were used, namely, questionnaires and interview schedules. Questionnaires were used to gather data from lecturers, students and technicians, while the interview schedule was used to collect data from the principals and their deputy principals. They present an even stimulus, potentially to large numbers of people simultaneously, and provide the investigation with an easy accumulation of data. On the other hand, interview schedules are considered appropriate when the sample is small, since a researcher is able to get more information from respondents than would be possible using a questionnaire.

### Reliability and Validity of the Instruments

Pre-test was done on the validity and reliability of the instruments. Mugenda and Mugenda (2003) observed that once the questionnaire has been finalized, it should be tried out in the

field. The questionnaire was pretested on a selected sample, which was similar to the actual sample that was used in the study. The procedure used in pretesting the questionnaire was identical to the one used during the actual data collection exercise. This allowed the researchers to make meaningful observations.

### **Validity**

According to Mugenda and Mugenda (2003), validity is the degree to which results obtained from the analysis of data actually represent the phenomena under study. A valid instrument should accurately measure what it is supposed to measure. After administering the instruments to the selected respondents, the data obtained in this study was found to be a true reflection of the variables under study.

### **Reliability**

Mugenda and Mugenda (2003) define reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trials. To enhance reliability of instruments, a pre-testing study was conducted at the Rift Valley Institute of Science and Technology. The instruments were administered to 8 lecturers, and 8 students who were not to be included in the actual study.

### **Data Analysis Plan**

Data collected from the field was coded and entered into the computer for analysis using the Statistical Package for Social Sciences (SPSS) Version 21. Both qualitative and quantitative data analysis techniques were used to analyse the data. Qualitative data was analysed by arranging responses according to the research questions, interview schedules and objectives. Descriptive statistics was used to describe the distribution of variables such as qualification, training needs, teaching methods, improved and effective training.

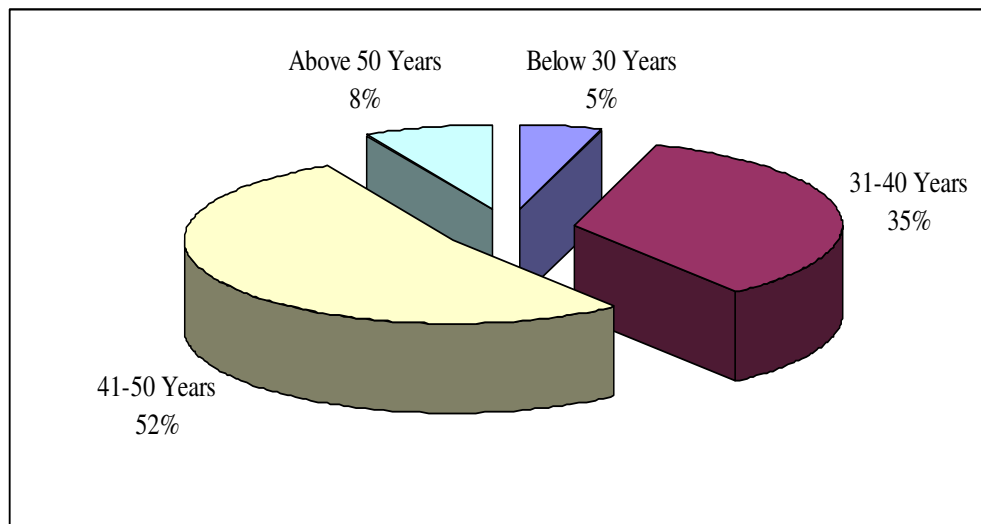
## **FINDINGS AND DISCUSSION**

### **Distribution of the Respondents by Gender**

The study found that 85% of the tutors were female while 15% were male.

### **Distribution of the tutors by Age**

The study found that 74 (52%) of the tutors were aged between 41-50 years, 50 (35%) were between 31-40 years, 11 (8%) were above 50 years and 7 (5%) were below 30 years. This indicated that most of the tutors in the sampled institutions were of middle age.



**Figure 4.1 Distributions of Tutors Respondents by Age**

#### **Distribution of Tutors' and Technicians' Highest Qualifications**

The study found that most of the respondents interviewed (58%) had Technical Diploma in Clothing Technology. The study also found that 10% had diploma in clothing and textile and 14% of the respondents had a degree in Textile and Interior Design.

#### **Table 4.2 Distribution of Tutors' and Technicians' Highest Qualifications**

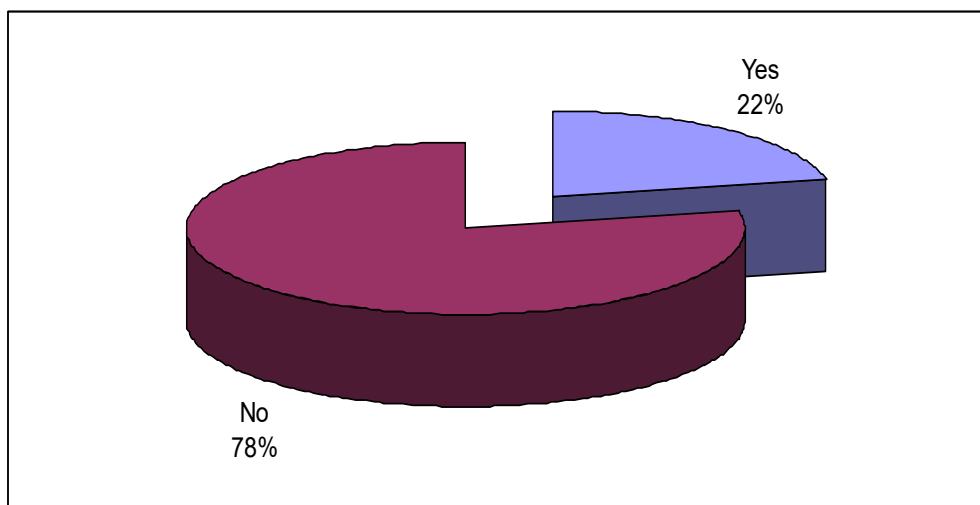
The study found that from respondents interviewed 8% had masters, 14% had degree, 58% Technical Diploma in Clothing Technology, 10% had a Diploma in clothing and textile and 10% had Diplomas in Education. According to the revised scheme of service for technical teachers and lecturers by TSC (2007), the qualification for technical a lecturer is diploma in technical education. The findings are presented in Table 4.4.

**Table 4.4 Distribution tutors' qualifications and technicians**

	Frequency	Percentage
Diploma in Clothing and Textile	43	10
Technical Diploma in Clothing Technology	253	58
Diploma in Education	43	10
Graduate in Textile and Interior Design	58	14
Masters in fashion design and Technology	35	8
	416	100

### Training Needs of tutors

The members of the academic staff were asked to indicate whether they had attended any skills upgrading courses during their training career. The study found that 323(78%) had never attended such courses, while 31(22%) had. This was an indication that there was need for skills upgrading among the tutor members in the institutions studied. These results, complimented a study by MOEST (2003) that found that there was lack of experienced instructors for the success of TIVET programs. It recommended that in order to drive the country's industrial development, additional applied skills and knowledge were necessary for instructors. This was an indication that there is need for upgrading of skills among the academic staff in TIVET institutions, as shown in Figure 4.2.



**Figure 4.2 Participation in Skills upgrading Courses**

Of the 22% respondents who had attended skills upgrading courses, 12(8%) reported that they had attended courses in technical skills upgrading, entrepreneurship 5(4%), supervisory management 4(3%), machine repair and maintenance 5(4%), training of trainers 3(2%), and senior management 2(1%).

All the respondents 416(100%) indicated that there was need for training on skills upgrading in areas such as entrepreneurship (22%), degree in clothing and textiles (15%), degree in fashion (10%), training in the use of IT in clothing and textiles (17%), machine maintenance (4%), technical diploma in clothing technology (6%), technical skills upgrading (16%), computer aided designs (6%) and masters degree in fashion design (4%).

### Summary, Conclusions and Recommendations

The study established that 85% of tutors' members were female. On the issue of age, the study found that 52% of the academic staff members were aged between 41-50 years and will retire and leave the service soon. The study found that most of the respondents interviewed (58%) had Technical Diploma in Clothing Technology, hence, were considered qualified to train in Clothing courses. However, there was need to upgrade the trainers skills, as indicated

by all the 416 (100%) respondents. The skills upgrading required was machine maintenance, degree in clothing and textiles, degree in fashion design and marketing, IT use in clothing and textiles, and masters degree in fashion design and marketing.

## Conclusions

The study established that if tutors were facilitated to improve on their identified positive attributes, the mismatch gap between training and textile industries labour demands would be narrowed and skills to be in line with new technology will be improved

## Recommendations for Policy and Practice

The following were the recommendations of the study:

- a) Clothing and textile subject be introduced and be compulsory in all secondary schools so as to encourage gender balance
- b) Ageing professoriate. This study has pointed out the concentration of well-qualified tutors in the age groups nearing, at retirement. Thus need for developing and placement
- c) That Tutors needed further training to upgrade their technical skills, which can be done in technical colleges and universities that offer clothing and textile and fashion design and marketing.

## Recommendations for Further Research

This study was done in 18 technical training institutions in Kenya. The study therefore recommends that:

- (a) A study be done to establish the level of adoption of the use of new technology in clothing and textile in Technical, Industrial, and Vocational Entrepreneurship Training Institutions in Kenya.
- (b) A study be done to establish the training equipment and facilities in TVET institutions in Kenya.

## REFERENCES

- Ayonmike, Chinyere, S., (2014) *Training the Trainers in Technical Vocational Education and Training Institutions in Africa: A Tool for Producing Competent Graduates*. Department of Technical and Business Education, Delta State.
- BMET (Bureau of Manpower, Employment and Training). (2014). *Skills standards of BMET*. Government of Bangladesh. Tech Report. Sep 2014, Dhaka: Government of Bangladesh.
- Eshiwani, G. S. (1983). *Factors Influencing among Primary and Secondary School Pupils in Western Province of Kenya*. Bureau of Education Research, Kenyatta University, Nairobi.
- Fajonyomi, A. A. (2007). *Reviving Higher Education Relevance in Nigeria*. A paper presented at the 3rd Faculty of Week and Annual National Conference, Faculty of



Education. University of Maiduguri on the theme Higher education reforms in Nigeria from 26th to 27th September.

Government of Kenya (2004). *Kenya Vision 2030*. Government Printers. Kenya.

Harvey (2001). *Institutional Techniques & practice*. Stanley Thornes publishers. United Kingdom.

Kathuri, M. (1993). *A Study on the Perceptions of the Influence of Teaching Practice Project on Teaching of Science in Selected Schools in Kenya*. PhD Thesis. Egerton University.

Kenya Education Sector Support Programme (KESSP) (2005). *Delivering Quality Equitable Education and Training to All Kenyans*. Ministry of Education. Nairobi.

K. I. E. (1995). *Evaluation of Secondary School Curriculum Report*. Research Report Series No. 53, K.I.E. Nairobi.

Kitaienge, K.M. (2003). 'Education and training for work: A comparative study of Kenya and Australia', paper presented at the sixth Australian VET Research Association Conference, The changing face of TVET, Sydney.

Lubben, F. & Campbell, D. (2002). *Achievement of Swazi Students Learning Science Through Every Day Technology*. Review of Education Research, 61(2) 25-69.

Male, R. (1988). *A Study of Methods Used by Teachers in Teaching Home Science in Primary Schools in Central Division of Nairobi*. Masters Thesis, Kenyatta University.

Africa D. F. (2015). *Weaving Through Reforms: Nairobi's Small Garment Producers in a Liberalized Economy*: Paper presented at the East African Workshop on Business Systems in Africa.

Michael W. Harvey, (2001) Special Needs Education and TVET. USA.

MOEST (2007). *Capacity And Capability of TIVET Institutions for Sustainable Development of TIVET*, Nairobi, Kenya.

Munene, E. K. (1992). *A Study of the Factors that Affect the Teaching and Learning of Home Science In Primary Schools in Westlands Divisions*. Masters Thesis, Kenyatta University.

- Mugenda, M., & Mugenda, G. (2003). *Research Methods: Qualitative and Quantitative Approach*. Africa Centre for Technology Studies. Nairobi. Kenya.
- Muthoka, M. J. (1994). *Factors Influencing Performance of English in Secondary Schools in Changamwe Zone*, Mombasa, District P. G. D. E, Thesis, Kenyatta University.
- Mwangi, F.W. (2008). *Barriers to the Implementation of General Science Curriculum in Secondary Schools In Kangundo District*. Kenyatta University Published thesis.
- National board of Education (2009). Vocational Qualification in textiles and clothing. Bureau of Labor Statistics, U.S.A.
- Nguku Everlyne (2012) *Analysis of textile & clothing training institutions in the east-southern Africa*. Commercial Insects' Programme icipe. Kenya.
- Nyerere, J. (200), Technical & Vocational Education And Training (Tvet) Sector Mapping In Kenya . The Dutch Tvet Programme, Schokland.
- Odu, O.K. (2011). Philosophical and sociological overview of vocational and technical education in Nigeria. American-Eurasian Journal of Scientific research. 6(1). Pp.52-57
- Ogbazi, J. N. (1987). *Using Co-operative Education Students' Performances*. Vocational Education Journal, 1(1), 162-169.
- Okuni, A. (2000). "Higher Education through the Internet: Expectations, Reality and Challenges of the African Virtual University". Development and Cooperation, No.2, P. 23.
- Government of Kenya (2007). *Annual Progress Report*. IMF Country Report No. 05/11. Sessional Paper Number 1 (2005). *On Policy Framework for Education Training and Research*: Government Printers, Nairobi.
- UNDP (2005) and GOK (2005). *Report on Status of Jua Kali Sheds and Youth Polytechnics in Kenya*. Nairobi; Government Press.