INFLUENCE OF VOCATIONAL TRAINING ON LABOUR PARTICIPATION IN THE CONSTRUCTION COMPANIES IN NAIROBI COUNTY, KENYA.

COLLINS OLANG

A RESEARCH REPORT SUBMITTED IN PARTIAL FULLFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI

2017

DECLARATION

This research report is my original work and has never been presented for an award in any other University or institution.

..... Date: ……..

Collins Olang

Registration No**.** **L50/72303/2008**

This research report has been submitted for examination with my approval as the University supervisor.

..... Date: ……..

Dr. Peter Nzuki

Lecturer, Department Of Educational Studies and Coordinator ODel Programmes, ODel Campus,University of Nairobi.

DEDICATION

I dedicate this work to my family, my wife, Anne Abonyo, daughters; Malia and Anita, and mother and Mary Ogutu.

ACKNOWLEDGEMENT

First and foremost I would like to acknowledge my University of Nairobi supervisor Dr. Peter Nzuki for his guidance and patience during the preparation of the research report.

I would also like to acknowledge my lecturers, Prof. Harriet Kidombo, Dr. Isaac Were, Prof. Christopher Gakuu and Mr. Sam Wambugu among others for providing guidance to me during my study for the Degree of Masters of Arts in Project Planning and Manegement, though it is not possible to name them all individually I am thankful and appreciative for their work.

I also aknowledge the University of Nairobi for granting me the opportunity to pursue my degree of masters of arts in project planning and management.

I also acknowledge the support received from Managers of Youth polytechnic and Vocational centers In Nairobi County for committing their time and effort to accommodate my study. I am particularly happy with their efficiency to organize for meetings amidst a busy time when the institutions were preparing for their practical exams.

Lastly, I would wish to acknowledge my fellow students and colleagues, Richard Ojiro, Martin Mugambi, Phillip Migire, Henry Opondo and Biwott Cherus for their encouragement, support and useful contribution to this study.

TABLE OF CONTENT

DECLARATION ..... **ii**
DEDICATION ..... **iii**
ACKNOWLEDGEMENT ..... **iv**
LIST OF TABLES ..... **viii**
LIST OF FIGURES ..... **ix**
LIST OF ABBREVIATIONS AND ACRONYMS ..... **x**
ABSTRACT ..... **xi**
CHAPTER ONE **1**
INTRODUCTION **1**
1.1 Background to the Study 1
1.2 Statement of the problem 4
1.3 Purpose of the study 6
1.4 Objectives of the study 6
1.5 Research Questions 6
1.6 Significance of the study 6
1.7 Basic assumptions of the study 7
1.8 Limitations of the study 7
1.9 Delimitation of the study 8
1.10 Definition of significant terms used in the study 8
1.11 Organization of the study 9
CHAPTER TWO **10**
LITERATURE REVIEW **10**
2.1 Introduction 10
2.2 Labor Participation in the Construction Companies 10
2.3 Concept of Vocational Training 11
2.4 Training Equipment and Labour Participation 12
2.5 Training facilities and labour participation 13
2.6 Capacity of training instructors and labour participation 16
2.7 Training Curriculum and Labour Participation 21
2.8 Labour participation in the construction industry 23

2.9 Theoretical framework 24
2.10 Conceptual framework 27
2.11 Summary of literature 28
2.12 Research Gap 28
CHAPTER THREE 29
RESEARCH METHODOLOGY 29
3.1 Introduction 29
3.2 Research Design 29
3.3 Target Population 29
3.4 Sample Size and Sampling Procedure 30
3.5 Research instruments 32
3.6 Data Collection Procedure 34
3.7 Data Analysis Techniques 35
3.8 Ethical Considerations 35
3.9 Operationalization of definition of variables 36
CHAPTER FOUR 37
DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION 37
4.1 Introduction 37
4.2 Response rate 37
4.3 General information about the Graduates 37
4.4 Findings from employers on the influence of vocational training on labour participation in the construction companies. 48
4.5 Regression analysis 54
CHAPTER FIVE 57
SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS 57
5.1 Introduction 57
5.2 Summary of Findings on Influence of Vocational Training on Labour Participation in the Construction Companies 57
5.3 Discussion on Influence of Vocational Training on Labour Participation in the Construction Companies 59

5.4 Conclusions on Influence of Vocational Training on Labour Participation in the Construction Companies 59
5.5 Recommendations on Influence of Vocational Training on Labour Participation in the Construction Companies 60
5.6 Suggestion for further studies 60
REFERENCES 61
APPENDICES 68
Appendix I: Introductory Letter 68
Appendix II: Questionnaire For Graduate 69
Appendix III: Questionnaire For Employers 75
Appendix IV : Key Informants interview guide 78
Appendix V : Interview guide for TVET directors 79
Appendix VI: Observation schedule 80

LIST OF TABLES

Table 3.1: Target Population....30
Table 3.2: Sampling Frame....31
Table 3.3: Operationalization of definition of variables....36
Table 4.4: Gender of the respondent....37
Table 4.1: Gender of the respondent....37
Table 4.2: Age bracket....38
Table 4.3: Marital status....38
Table 4.4: Employment Status....39
Table 4.5: Training course....39
Table 4.6: Accommodation by the institution....40
Table 4.7: Adequacy of training facilities and equipment....40
Table 4.8: Quality of training....41
Table 4.9: Modern training equipment....42
Table 4.10: Adequacy of training equipment....42
Table 4.11: Training instructor's capacity....43
Table 4.12: Vocation training curriculum....44
Table 4.13: Labor participation....45
Table 4.14: Qualification acquired....46
Table 4.15: Relationship of training and labor market....47
Table 4.16: Skills Required by Employers....47
Table 4.17: Acquired skills in training....48
T**able 4.18**: Employment of youth polytechnic graduates....49
Table 4.19: Frequency of employment of youth graduates....49
Table 4. 20: Recruitment methods....50
Table 4. 21: Levels of employment....50
Table 4.22: Employment areas of specialization....51
Table 4. 23: Employment from different training fields....51
Table 4.24: Frequency of recruitment from different training fields....52
Table 4. 25: Rating of the competence of vocational training graduates....52
Table 4. 26: Employer satisfaction with employee from Youth Polytechnics....53
Table 4. 27: Trainability of youth graduates....53
Table 4. 28: Adaptability of youth polytechnic graduates to their work place....54
Table 4.29: Model summary....54
Table 4.30: Analysis Of Variance....55
Table 4.31: Coefficient analysis....55

LIST OF FIGURES

Page

Figure 2.1: Conceptual Framework 27

LIST OF ABBREVIATIONS AND ACRONYMS

CEDEFOP	European Centre for the Development of Vocational Training
DYTO	District Youth Training Officer
DLO	District Labour Officer
EVT	Enterprise-based Vocational Training
FPE	Free Primary Education
FMTP	Full Medium Term Plan
GER	Gross Enrolment Rate
HELB	Higher Education Loans Board
IEA	Institute of Economic Affairs
ILO	International Labour Organization
IPEC	International Programme for Elimination of Child labour
KESSP	Kenya Educations Sector Support Programme
KIDDP	Kenya - Italy Debt for Developmant Programme
KIE	Kenya Institute of Education
MDG	Millennium Development Goals
MoES&T	Ministry of Education and Science and Technology
MoYAS	Ministry of Youth Affairs and Sports
NER	Net Enrolment Rate
SPSS	Statistical Package for Social Scientists
TIVET	Technical Industrial and vocational education
TVET	Technical and vocational education and Training
UNESCO	United Nations
UNEVOC	International Centre for Technical and Vocational Education and Training
UPE	Universal Primary Education

ABSTRACT

The purpose of this study is to establish the influence of vocational training on labour participation in the construction companies in Nairobi County, Kenya. The objectives of the study will be to establish the influence of equipment on labour participation in the construction companies in Nairobi County, to establish the influence of training facilities on labour participation in the construction companies in Nairobi County, to determine the influence of instructor capacity on labour participation in the construction companies in Nairobi County and to examine the influence of training curriculum on labour participation in the construction companies in Nairobi County. The study employed the descriptive survey research design. The target population for this study was 216 graduate of youth polytechnics, 10 Managers of Youth Polytechnics, 4 Directors of Technical and Vocational Education and Training (TVET) and 20 employers of Youth Polytechnics graduates in Nairobi County giving a total of 250 target population. The study used cluster sampling to select 216 Youth Polytechnics graduates, 10 Managers of Youth Polytechnics, 4 Directors of Technical and Vocational Education and Training (TVET) and 20 employers of Youth Polytechnics graduates in Nairobi County. The sample size of the study was 140 graduate trainees, 10 managers, 4 directors and 20 employers arrived at through a mathematical formular. The study used questionnaire, interview guide and observation as the main data collection instruments. A pilot study was carried out to pretest and validate the questionnaire. A permit from National Council for Science Technology and Innovations was attained before embarking on the study. Descriptive statistics will be used to analyze the data collected on the influence of vocational training on labour participation in the construction companies Nairobi County, Kenya. Quantitative data collected was analyzed using proportions, means, standard deviations and frequencies. Content analysis was used to analyze data that is qualitative in nature or aspects of the data collected from the open ended questions. In addition, a multiple regression was used to establish the relationship between study variables. The study established that equipments had (0.598) positive influence on labour participation in the construction companies in Nairobi County, Kenya. The study revealed that training facilities have (0.665) positive influence on labour participation in the construction companies. The study found that instructor capacity had (0.291)positive influence on labour participation in the construction companies in Nairobi County, Kenya. The study indicated that training curriculum had (0.542) negative influence on labour participation in the construction companies in Nairobi County, Kenya.The study recommends that vocational training institutions should acquire modern training equipment and the equipment should also be adequate for the students in the institution, this will positively influence vocational training and increase labour participation in the construction companies.The study also recommends that the institutions should purchase enough training facilities for their students this will have a great impact to vocational training since the trainees will be properly trained. Also because of the training facilities there will be an increase in labour participation in the construction companies. Another recommendation is that the institutions should employ experienced instructors, this will enhance their work delivery to the trainees and will result to a better understanding of trainees since, they are taught by qualified instructors and hence it will increase increase labour participation in the construction companies. The institutions should have a curriculum which can be replicated in the current jobs by the graduates, this will increase influence labour participation in the construction companies.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Technical Vocational Education and Training (TVET) is one of a recognized and effective means by which quality, up-to-date, well-informed, literate and knowledgeable workers are prepared and trained for the development of the nation (Hollander & Mar, 2009). Mwangi (2004) describes TVET as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. In a nutshell, TVET is a means of preparing for occupational fields and for effective participation in the world of work and alleviating poverty (Okorie, 2010).

Technical Vocational Education and Training (TVET) facilitates the acquisition of the practical and applied skills as well as basic scientific knowledge. It is therefore a planned program of courses and learning experiences that begin with exploration of career options, basic academic and life skills, and enables achievement of high academic standards, leadership, preparation for industry-defined work, and advanced and continuing education (CTE, 2009). Nuru (2007) indicated that changes in a country's economy is required to prepare young people for job of the future and TVET has important role to play in this process. The aim of TVET is to prepare people for self-employment and in addition be a medium of training people for the world of work; by making individuals have a sense of belonging in their communities. Consequently, TVET is seen as an instrument for reducing extreme poverty (Hollander & Mar, 2009).

Technical Vocational Education and Youth Polytechnic are the principal technical institutions established to equip students with relevant technical skills as craftsmen in various occupations. Technical Colleges are secondary level of Kenyan educational system which offer skill-based subjects in construction trade which among others include (building and contruction, plumbing, carpentry and joinery and electrical installation). The construction industry consists of a diverse group of sub industries, with

many individuals and organizations involved in the construction of a single structure. It is obvious that skills enhance employability and productivity as well as sustain competitiveness in the global economy. Skill development is the ability to do or perform an activity that is related to some meaningful action, work or job. In contributing to this, Okorie (2010) points out that to develop a particular skill is to exhibit the habit of thinking, acting and behaving in a specific activity in such a way that the process becomes natural to an individual through constant practice.

Construction trades teach individuals the systematic skills, knowledge and attitude involved in the production of specific products or services. It incorporates the total learning experiences acquired in abilities to make matured judgments and be in a position to create goods and services in the area of block –laying, concreting, plumbing, painting, carpentry and joinery, furniture/cabinet making, wood machinist and upholstery work. TVET play a crucial role in the social and economic development of a nation (Adeyemo, 2010). Owing to their dynamic nature, they are constantly subjected to the forces driving change in the schools, industry and society. Construction projects equires technical skills that could be obtained in technical and vocational schools. The real tests of success of youth polyetcnics are the employability of the graduates, personal development, opportunities for further education and carrier development, opportunities for further education and career development, public acceptance and image. Ultimately, the effectiveness and responsiveness of a youth polyetcnics system would be its impact on the social and economic development of the nation (Okafor, 2011). It is obvious that skills enhance employability and productivity as well as sustain competitiveness in the global contruction industry.

Skill is ability possessed to carryout activities with ease and accuracy. Osuala (2009) refers to skill as the ability to perform expertly, facility in performance, dexterity and tact. Skill therefore, is the outcome of the training given to a student or an employee to make him/her perform more expertly and easily on his job by using his knowledge effectively and readily in execution of his performance. Skill development according to Okorie (2010) varies with the nature, complexity and type of activity that is involved. Skill development requires intelligent humans. Indeed, most learned or developed skill

present great challenges to students in the integration of the practical work and theoretical fields, 'common sense, a good power of observation and courage'' (Okorie 2010, p. 84). An individual who opt for skill development should among other things, possess qualities such as interest, ability, aptitude, patience, personality characteristics and other human or physical qualities that would enable him/her succeed in it (Adeyemo, 2010). The problem of why there is a high level of TVET graduates who are unemployable arises from lack of skills or competency required of them in in the construction companies in Kenya, despite the fact that the summary of the objectives of TVET is to enable students secure employment either at the end of the whole course of after completing on or more modules of employability skills forms the basis for this study (Osuala, 2009).

The important role of TVET institutions cannot be reiterated as showcased by employment statistics for the year 2009 where informal sector contributed to the highest number of employees which constituted 79.8 per cent of total employment, continued to form the bulk of total jobs created providing an additional 433.5 thousand new jobs, same levels as those created in 2007. In the same period, the total number of self employed and unpaid family workers within the modern sector remained at the same level of 2007. According to the African Economic Outlook 2008 Technical and Vocational Skills Development in Africa occurs at different levels of education. Governments and donors need to produce the mix of skills that best corresponds to the requirements of countries at their specific stage of economic development. In addition, skills and vocational training policies are most effective when they are in line with overall development policies and the needs of the labour market. This is the departure e point from which the Kenya Education Sector Support Programme (KESSP) of 2005-2010 was formulated and adopted.

According to the Institute of Economic Affairs **(**IEA) Youth Fact Book According to the 2010 Economic Survey, in 2009, the total enrolment in TVET institutions was 71,513 as compared to 85,200 in 2008. The lower enrolment was due to upgrading of Kenya Polytechnic University College and Mombasa Polytechnic University College to University college status in 2009. The Youth Polytechnics had the highest enrolment

recorded among TIVET institutions at 43.8 per cent followed by Technical training institutions at 31.4 per cent. The current national polytechnics are Kisumu and Eldoret with a total enrolment of 6,999 students. In 2009, the male student enrolment stood at 50.2 per cent in TIVET institutions with Youth polytechnics having a higher enrolment of female students at 57.8 per cent.

Technical and Vocational Education and Training (TVET) programmes are considered central in industrialization of economies (Federation of Kenya Employers, 1996; McGrath, 2002; Ziderman, 1997).Despite the lack of observable association between the provision of technical education and economic performance and growth, TVET is stressed as an alternative that would ensure development by alleviating unemployment and transmitting skills and values useful in employment (Kogoe, 1985). There is therefore a need to carry out a coherent analysis of vocational training programmes while including natural resources, the business environment, and the availability of equipment, demand and access to markets. Taking into account all these elements should improve service delivery, planning and resource allocation. As shown by an analysis of training programmes in the informal sector of Côte d'Ivoire during 1994-2002 indicated which ones produced positive economic impacts; in Benin a study of programme quality over 2000-2005 showed possible positive outcomes, since 60 per cent of participants said that their turnover and profits had increased while costs had fallen. This study sought to establish the influence of vocational training on labour participation in the construction industry in Kenya.

1.2 Statement of the problem

In the last 10 years, Kenya has experienced a boom in its construction sector with highrise buildings, residential buildings and office buildings coming up by the day. One would expect that with such a boom, Kenyans who are skilled in the areas of construction will never go jobless. However, this is not the case going by the unemployment rate among youths in Kenya today. Institutions mandated to produce such lower level skills produce graduates in their humdreds yet they cannot access employment in the construction sector. This means that there must be a disconnect between the skills that the graduates possess and the realities in the job market. Youth

polytechnics are the principal technical institutions established to train craftsmen in various occupations. It is a paradox that a large number of Technical College graduates go jobless for years, while construction companies in Kenya is in short supply of skilled workers from technical institutions (Kinyua, 2015). Boeteng and Ofori-Sapong (2012), observed that experience requirements are now stated in terms of competencies and skills rather than years. The result of a study carried out on graduate turnout, skills and graduate unemployment by Akinyemi, Ofem and Omore (2010) shows that TVET graduate largely lack basic skills and competence that are needed in the modern construction companies.

Adeyemo (2010), observed from a survey carried out on TVET graduate labour participation in the construction industry, that there was a mismatch between the technical college graduates and labour market demands in the construction industry. Skills mismatch, according to Nzekwe and Izueke (2013) is a situation where an individual lacks the basic mental, (even though he has had formal education), social, practical and developmental skills that will enable him to function effectively at assigned jobs and handle everyday work challenges. To collaborate this, the National Construction Authority, NCA (2015) asserted that construction companies in Kenya were not recruiting but adopting employment protection strategies due to the poor quality graduates, who do not meet the demands of the industry. According to NCA(2015) the lack of skills was attributed to old curriculum in training instutitions, lack of modern equipment and training facilities in the youth polytechnics and lack of capacity by instructor .

Kent and Mushi (2015) states that job seekers from TVET possess skills that do not match the needs and demands of employers, which has been attributed to old curriculum, lack of modern equipment , lack of training facilities and lack of capacity by instructor (NCA, 2015). It simply means that majority of them cannot handle the job they go for (McGrath, 2009). This has resulted to construction companies in Kenya hiring foreign craftsmen to work for them due to lack of lack basic skills and competence that are needed in the modern Construction Industry. It is against this

background that the study sought to establish the influence of vocational training on labour participation in the construction companies in Nairobi County, Kenya.

1.3 Purpose of the study

The purpose of this study was to establish the influence of vocational training on labour participation in the construction companies in Nairobi County, Kenya.

1.4 Objectives of the study

The study was guided by the following objectives;

1. To establish how training equipment influence labour participation in the construction companies in Nairobi County, Kenya.
2. To establish how training facilities influence labour participation in the construction companies in Nairobi County, Kenya.
3. To determine how instructor capacity influence labour participation in the construction companies in Nairobi County, Kenya
4. To examine how training curriculum influence labour participation in the construction companies in Nairobi County, Kenya

1.5 Research Questions

The research study sought to answer the following research questions;

1. How does training equipment influence labour participation in the construction companies in Nairobi County, Kenya?
2. How does training facilities influence labour participation in the construction companies in Nairobi County, Kenya ?
3. How does instructor capacity influence labour participation in the construction companies in Nairobi County, Kenya?
4. How does training curriculum influence labour participation in the construction companies in Nairobi County, Kenya?

1.6 Significance of the study

The findings of the study may be of great importance to the management of youth poly-technics in Kenya as they may understand how vocational training influence labour participation in the construction companies, this may assist them in addressing the

challenges related to training curriculum , instructor capacity and equipment and training facilities, this may assist in equipping youth with right skill needed for them to participate in the local construction companies. The study may also be significant to public and private vocational training providers in the evaluation of their programmes while improving quality of their programmes to cater to the different needs of the labour environment.

This study may be of great importance to the government policy makers in the Ministry of Education, Science and Technology , as they will get an insight of vocational training on labour participation in the construction companies in Kenya. This may assist in designing policies aimed at improving the vocational training insitutution in Kenya , to equip youth with the right skills to enable them to participate in the construction companies in Kenya.

The study seeks to provide information to the existing body of knowledge and serve as a departure point from which further research may be undertake on the effect of vocational training. The study will form the basis for future research as well as provide literature to future research .

1.7 Basic assumptions of the study

The study assumed that the respondents gave true information on the questions asked. The study ensured that the respondence gave true information by assuring them that the information they give would be treated confidently.

1.8 Limitations of the study

The respondents approached were reluctant in giving information fearing that the information sought would be used to intimidate them or print a negative image about them or Youth Polytechnic. The study handled the problem by carrying an introduction letter from the University and assuring them that the information they gave was to be treated confidently. Some respondents turned down the request to fill questionnaires. The study assured them that the information they gave was used purely for academic purposes.

The researcher also encountered problems in eliciting information from the respondents as the information required was subject to areas of feelings, emotions, attitudes and perceptions, which cannot be accurately quantified and/or verified objectively. This lead to lack of response due to the veil of confidentiality surrounding the institutions. The researcher encouraged the respondents to participate without holding back the information that they might be having which could be useful as the research instruments.

1.9 Delimitation of the study

According to the Sessional Paper No. 5 on Education and Training in Kenya, there are various institutions involved in offering vocational training, which are 4 national polytechnics, 17 Institutes of Technology, 1 Technical Teachers' Training College and 21 Technical Training Institutes. In addition, there are over 600 youth polytechnics distributed throughout the country. However, only 350 of the youth polytechnics receive Government assistance. However the study will limit itself to Nairobi County companies and Youth Polytechnics due to the Revitalization of Youth Polytechnics Flagship Projects which seeks to facilitate the training of young people in technical, vocational and entrepreneurial skills in an effort to increase their productivity and equip them with skills to participate fully in productive activities. In addition, they were also equipped with creative skills to deal with advances in technology as spelt out in the FMTP 2008-2012.

1.10 Definition of significant terms used in the study

Equipment: These refer to instructional tools and hardware used in the training process that facilitate the learning process

Instructor capacity: these are the specific ability of an instructor or resource, measured in quantity and level of quality, over an extended period.

Labour participation in construction companies: this implies the employability of youth polytechnic graduates into the present labour market in Kenya.

Physical facilities: These refer to physical infrastructure, learning facilities and support services in vocational training institutions that facilitate the learning process.

Training curriculum: The knowledge, skills and attitudes imparted by learning areas/subjects, cross-cutting approaches and extra-curricular activities.

1.11 Organization of the study

This study is organized into five chapters. Chapter one deals with the background of the study, the statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, assumption of the study, limitation of the study, delimitations of the study, definition of terms and the organization of the study. Chapter two reviews literature along with the study objectives. It also presents the theoretical framework of the study. Chapter three outlines the research methodology that was adopted in this study. It also discusses the research design, the target population of the study, the sample size and sampling techniques, research instruments, data collection methods and data analysis methods. Chapter Four contains analysis of the data, their presentation and interpretation while Chapter Five offers a summary of findings, discussion of the findings against known literature, a conclusion, policy recommendations and suggestions for further research.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter covers the empirical literature which are studies done related to this study, theoretical review are the theories which are used to explain the study variables, conceptual framework shows the relationship between independent and dependent variables and the operationalization of the study variables, and finally, underscores the gap to be filled which is the reason why the study was conducted.

2.2 Labor Participation in the Construction Companies

According to Graaff and Kolmos (2003) the construction industry was considered as an industry with a low level degree of innovation and with a lot challenges, such as; weak focus on customer service and poor product quality. The industry is seen to experience inexpediencies and errors in the process of construction and low productivity. Low income for the contractors and the level of environmental safety and health is minimal in comparison to other industries. Many of the programmes and projects sponsored by the government strive to improve the construction industries by introducing the vocational trainings in the country. These include the building and construction programmes and their components of construction management. There are different phase in a construction project and the constructors play a significant role.

The introduction of the vocational training institutions in the country is the beginning of the construction process. Students follow the different phases, right from the first ideas of the construction and its use over design and erection to facilities management. Besides technical areas the education in construction management covers areas of organizational design, management accounting, financing, project management, work environment regulations, logistics, construction law, information technology, etc (Owigar, 2003). The education aims at teach the students the bigger picture, i.e. the whole construction project, not separate sub specialized knowledge. Furthermore, the education must enable the constructors to work in strategic, tactical and operational environments. Some projects are carried out in collaboration with industry companies,

others are more theoretical. The majority of the construction management students do in fact work with construction management. Moreover 94 % of all graduates are employed within the building industry. We think itis very important that the students after graduation are hired within the building industry. Only in such a manner can the skills of the students benefit the continuous improvement of the industry (Graaff & Kolmos, 2003).

2.3 Concept of Vocational Training

The 2001 UNESCO and ILO 's General Conference on Technical and Vocational Education and Training referred to TVET as "those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge related to occupations in various sectors of economic and social life" (UNESCO and ILO, 2002). Both developed and developing nations of the world are faced with the challenge of improving the capacity of their workforce to respond to their own national development needs and to the demands of a rapidly changing, more globally competitive world. The future success of nations, but also of individuals, enterprises and communities increasingly depends on existence and possession of transferable and renewable skills and knowledge. Many, both in the developed and developing world, recognize the important role that TVET plays in equipping individuals with relevant skills and knowledge, hence enabling people to effectively participate in social, economic and technological innovation processes.

In Kenya, the objective of TIVET is to provide and promote life-long education and training for self-reliance. The challenges facing this sub-sector include: inadequate facilities and capacities to cater for those who complete primary and secondary education and wish to undertake TIVET. Managing TIVET under various government departments has also posed a challenge to the sector, leading to disparities in the training standards due to lack of effective capacities (MOES&T, 2004). Vocational education and training prepares learners for jobs that are based in manual or practical activities, traditionally non-theoretical and totally related to a specific trade, occupation or vocation, hence the term, in which the learner participates. Vocational education is

usually considered part of the formal education system, and usually falls under the responsibility of the Ministry of Education. On the other hand, vocational training is better linked to the labour market and employment development system, and usually falls under the responsibility of the Ministry of Labour and Social Affairs. TVET is often offered at secondary and post-secondary levels (NUFFIC, 2010).

2.4 Training Equipment and Labour Participation

For any meaningful education and training program teaching equipment is a core ingredient of the fashion in which these process is facilitated. The study envisages training equipment as the necessary material with which vocational instructors and trainees deliver training. The KESSP (2005) identifies inadequate modern equipment as one of the issue and constraints facing vocational training institutions. Some factors are responsible for this state affair from poor financing of TVET centers to the high rural to urban migration which has put a strain on social utilities such as education and health. Opiyo & Agwanda (unpublished) in the Kenyan Youth Fact Book indicate increased youth migration has far-reaching impacts. It increases the strain for jobs without necessarily improving the job conditions of those who are left in rural areas; impacts provision of public goods, education, utilities, housing, and infrastructure; and affects demographic and skills composition in both urban and rural areas.

Institutional workshops offer opportunities for practical training of students in skill acquisition in their technical trade areas for future development of the key sectors of the economy in order to meet the basic needs of electricity, roads and machinery, among others. Student's practical projects are an important part of the curriculum in TVET, but a supportive institutional environment is a fundamental requirement for the successful implementation of curriculum (Bybee&Loucks-Horsely, 2000). This aspect of the curriculum can only be implemented where workshop facilities, tools, equipment and machines are adequate and relevant. Availability of appropriate workshop facilities enhances student learning by allowing them to be involved in demonstrations, and practice which will help them to continue to build their skills. In Nigeria, Audu (2013) affirms that one of the issues of great controversy among TVET educators is the issue of the poor state of workshop tools and equipment in TVE institutions. Umar &Ma'aji

(2010) stated that most of the TVE institutions in Nigeria have been forced to perform below expected standards due to non -availability, poor management or utter neglect of the required facilities in the workshops for effective skills acquisition. Therefore, provision of adequate workshop tools, equipment and machines is a prerequisite for effective implementation of TVET programs in any country. Udofia et.al.(2012) confirms this by stating that there is significant relationship between workshop equipment for training and acquisition of employable skills. According to Dasmani (2011), TVETs in Ghana suffer from inadequacy in the provision of instructional materials and training equipment which leads to focusing more on theoretical teaching leading to trainees lacking proficiency in their chosen field of specialization. Since TVETs mostly rely on training, their short supply will negatively affect practical skills acquisition.

In Kenya Dasmani (2011) established that most TVETs operate with inadequate workshop facilities, which do not have adequate training equipment. The lack of training facilities compromises the relevance of taught skills to market skill needs in industries and business organizations. Most of the training equipment found in TVETs is not technologically in tandem with equipment found in industries and business organizations. The training equipment are inferior to the equipment used in industries and business organizations. This state of training equipment erodes the relevance of taught skills to market skill needs. There is urgent need to modernize equipment and provided adequate facilities to ensure that graduates coming out of TVETs acquire skills relevant to the employment market skill needs in industries and business organizations.

2.5 Training facilities and labour participation

Institution infrastructure and facilities serve a variety of purposes for students and the surrounding community, most importantly to develop knowledge and skills for learners. For instance, support provided by KIDDP to vocational institutions in Kenya focus is infrastructure construction which is premised to potentially become a means for self sustainability for the polytechnics as they could be hired by the community for social events (KIDDP, 2010). Jamieson et al. (2005) have found that curriculum and facility design are related, and their findings demonstrate that the physical learning

environment has an influence on students' social and scholastic behavior, The research that has been conducted which examines the links between school infrastructure and student performance.

Owigar (2003) agrees training textbooks in most institutions are out dated and in some cases not available. Apart from institutions still under donor support, training inputs are very low and poor. It must be realized that inadequate budgets lead to inadequate outcomes. There seems to be lack of realization that TVET is more expensive than general education, a fact which came to bear too late for those who were involved in the creation and establishment of harambee institutions of technology and similar institutions. A training system cannot be efficient and cost effective if any of its budget components falls below the threshold amount required to make it operational.

UNESCO- ECOWAS (2009) maintain there is a dearth of textbooks in all developing countries. Students rely mostly on simple handouts or verbal lectures. Teachers have inadequate or outdated resources. Most teachers are poorly trained so they are not able to produce the teaching materials they are expected to deliver. Imported textbooks are too expensive and not suitable for the curricula. Local capacity for textbook writing is not mobilized. Only a few countries have dedicated technical teacher training institutions (Gambia, Ghana, Nigeria, and Burkina Faso).

Another factor with relevance to availability of facilities in training institutions refers to support services. These refer to the facilities that provide a conducive environment for learning these support services can have an impact on the impact of learning and productivity. Simiyu (2009) Support services or activities are those that are not directly academic. Yet, they affect the running of the institutions. Some are co-curricular in the sense that they assist in the improvement of the core business of the institution and the well-being of the entire community in the institution. These include sports and recreation, students' welfare and hostels and catering. Support staff is charged with the responsibility of overseeing these services. They carry out their work effectively and efficiently.

It is also important to understand that the technologies themselves are pervasive and multipurpose in the institutions. Not only must classrooms be facilitated, but also administrative offices, teacher offices, learning support units, and in some institutes, also the boarding facilities for students (Jamieson et al, 2000; Marcinkiewicz, 2001). The tools are used for development, delivery and administration of programs, and hopefully even for planning input and modelling. Learners developed more skills, their comfort with using the tools for new applications will be higher. The days of teaching 'computer basics' or 'word processing' will diminish with opportunities to spend time more productively on content of substance in the work skills/knowledge of the training program (Morgan, 2000). Teachers are developing their skills in using the technologies to support the educational process, through experiences in online course delivery, preparing materials using standard computer software such as word processing and graphics, or managing their student data, their efficiencies will increase as well. The sophistication and expectations of both learners and teachers will increase, putting pressure on institutes to provide the right type of educational environments to use the tools well (OECD, 2000; Twigg, 1999).

The lack of, or sophistication of, training equipment compared to the facilities in the workplace, is another problem for skill-based programs (UNESCO-UNEVOC, 2006). These problems are critical in developing countries where resources are scarce (Okaka, 1997), equipment often outdated, and funding inadequate. As a result, TVET programs are likely to produce graduates without relevant skills for the industry, limiting their employability. This will defeat the goal of industrialization of economies through technical and vocational education and training. Nyerere (2009) indicates that the current TVET curriculum is weak and not flexible enough to meet the technological changes and diverse needs of different clients. The quality of TVET graduates has declined in recent years due to poor instructional methods, outmoded/inadequate training equipment and lack of meaningful work experience and supervision during attachment. The graduates of TVET have experienced technology shock when they finally enter the job market (Nyerere, 2009).

Although there has been expansion of vocational training across the country (MoES&T, 2004) through establishment of new institutions and upgrading of existing ones; These efforts are seemingly futile given the lack of resources that can match these expansions of vocational programmes to improve labour participation in the current job market. As UNESCO (2006) lack of resources was seen as a hindrance to pursuing new critical objectives - to train the workforce for self-employment; and to raise the productivity of the informal sector - even more so given that TVET is an expensive form of education and expanding it without necessary and adequate facilities and equipment does not lead to productivity in the long run.

Yet, without such equipment, training yields poor results and graduates are unable to find jobs. It has been recommended that to help alleviate this financial problem in TVET more private provision should be encouraged (World Bank, 2005). Vocational training has mostly been financed by national governments expenditure assisted by development partners and agencies. For example, from 1964 to 1969, secondary TVET was the second-largest recipient of World Bank loans for education, accounting for nearly 20% of the total amount lent. However, the technical education share of the World Bank education loans was cut to 10% in the late 1970s and has decreased steadily since then, falling to 6% in the 1993 to 1998 period. Also, the structural adjustment programs led to the decline in the performance of vocational training institutions.

2.6 Capacity of training instructors and labour participation

Seyfried (1998) posits training personnel and its qualifications must be regarded as another important part of the training process and hence as one of the factors amenable to influence. If the evaluation of trainers and trainers behaviour nevertheless appears as an independent category this is due to the fact that this ‘decision variable’ has been accorded a great deal of significance in some relevant studies on the quality of the training process. Teacher resource is the single most important input into the learning process. There are different factors that come into mind when paying focus on the teacher /instructors involved in any education and training including vocational training. Grollmann (2008) there are two major obstacles to the professionalization of teachers in

vocational education: the low status of vocational education and the problem of increasing the status of the teaching profession in general. Nyerere (2009) also admits recurrent budget reductions have also negatively affected the number, qualifications, pay, morale and motivation of teachers and administrators. Most of the TVET institutions were grossly under funded resulting to poor service delivery and poor image.

However trainers and teachers continue not to enjoy the status that should be accorded to them in the interactive role they play with trainees and their overall contribution towards the skill development an overall economic success. As noted by (European Centre for the Development of Vocational Training, 1998; UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training & UNESCO Institute for Statistics, 2007 that In most industrialized countries, some two-thirds of the workforce that constitutes the backbone of the economy are intermediate-level workers and employees, who have learned a substantial part of their occupational skills and knowledge through the support of teachers, trainers and instructors in the domains of nonacademic technical vocational education and human resources development

In search of literature on teachers and trainers in vocational training the researcher came across a classification of these professionals and was deemed useful for the purpose of the study. CEDEFOP distinguishes three groups of professionals: teachers, full-time trainers and part-time trainers defined as;

Technical and vocational teachers have become specialists mostly as a result of higher education, i.e. university or university-related studies, which does not, in most cases, mean any previous professional experience in the relevant sector. Their strength lies in theoretical training, and their weakness in their lack of company experience. They usually work in technical and vocational training schools or centres.

Full-time trainers are generally specialized in one field and have solid company experience. They have changed their original occupation and essentially work as trainers. Their strength lies in their knowledge of their special subject and their weakness stems from either a lack of training in teaching techniques, or from a possible lack of practical experience as a result of a lack of contact with the real workplace.

Part-time trainers and temporary trainers specialize in one subject, technique or method, which constitutes their main professional activity, and only carry out teaching or training projects as a secondary activity. Their weak point is that they frequently lack the teaching skills required to plan and organize the course content and adapt it to the group they are training. This group, however, is in the best position to provide effective teaching or training. These trainers do not often work in initial vocational training but in continuing training.

Rivkin *et al*, (2005) the professional skills and competences of teachers constitute a crucial factor in determining the success of the teaching processes that they enact. One of the ways in which the quality of the profession can be improved is by raising the qualifications of teachers. Grollmann (2008) on a general level, two models of vocational teacher recruitment and training can be distinguished: a model that is based on the recruitment and preparation patterns of academic teachers and a model that is often referred to as 'alternative recruitment'. Given the fact that vocational teachers are expected to bring work experience and specific occupational knowledge into their educational institutions, different ways of recruitment are established that deviate from those used for academic teachers (Lynch, 1998). Often the formal credentials acquired through this route are lower than those of academic teachers.

According to Atchoarena & Delluc (2001) trainers are, as a whole, insufficiently trained for the fulfillment of their respective tasks, often new to them, which are imposed upon them as a result of their contacts with enterprises. In addition to the consolidation of their technical skills for giving them a command over the knowledge related to the trades that they have to teach, it is henceforth necessary to give them skills in building up such relationships. The trainers must be prepared to go out of their school to meet the enterprises. They have not been trained in the teachers' training colleges, when they exist, to fulfill these assignments.

UNESCO-ECOWAS (2009) maintain that almost all developing countries in the ECOWAS and Sub-Saharan region, there is a shortage of qualified and skilled instructors and teachers. Student teacher ratios vary from 14:1 (Mali), 20:1(Senegal), 30:1(Liberia) to as high as 80:1 in some disciplines. These ratios may be compared with recommended ratios of between 10 and 15:1 in TVET programmes. Nuffic (2010) in most developing countries, there are not enough specialised TVET teachers at both secondary and post-secondary levels. This has repercussions on the quality of students that are produced. Furthermore, most of the educators do not have direct contact with the labour market (through short-term) periodic secondments which would modernise and upgrade their practical knowledge on the actual technologies being employed in the workplace, as well as offer them insight into the actual practical needs of the labour market. This knowledge could then be incorporated into lessons or be passed on to colleagues through peer-mentoring.

Occupational experience is often a factor considered in teacher qualification whereby the individuals' experience in the work environment is afforded towards the trainees. Grollmann (2008) this is often seen as an alternative and less preferable route compared with general teacher recruitment, and is associated with lower formal expectations of teachers. This point to the fact that there is need for improved participation of the private sector and other stakeholders in vocational training which is also a constraint facing the TIVET system in Kenya; according to the KESSP (2005) where there is low participation of private sector in the curriculum design and development. This form of qualification requirement have been identified and formulated in vocational training, for instance in Germany which maintains the highest formal level in terms of academic requirements for entering the vocational teaching field, there is usually an amount of real work experience prescribed through the university curricula. The majority of student teachers in Germany hold an occupational qualification in their field, and if they lack this qualification, they have to undergo an internship in an enterprise. In Kenya however research show Nyerere (2009) trainers lack necessary industry-based technological skills updated through industrial attachment.

Information on the turnover of vocational and technical teachers is not available. However, in many countries, the retention of qualified vocational and technical teachers has been a problem because teachers with these skills can earn many times more money in the private sector. Although other factors such as declining enrolment in TVET centers have also played a role in the teacher turnover as noted by Simiyu (2007) that declining enrolment may result in a shortage of technology education teachers if it is not checked. There are various factors that have led to increasing turnover rates in TVET's a case is in Benin where teachers and staff at TVET institutions are remunerated relatively lower than their secondary school counterparts (Péano & Oulai, 1999).

The study will measure the identified variables as identified by Seyfried (1998) as constants in the evaluation as to the quality of trainers. the trainer's formal qualifications and professional expertise, teaching skills and communication abilities (for example the trainer's capacity for empathy), the trainer's experience with the target group as well as with the training methods used. The study will also seek to investigate the Emotional Intelligence of teachers at their workplace. Emotional intelligence is commonly defined as the ability to sense, understand, and effectively use the power of emotions to guide, motivate, and even influence others (Salovey & Mayer, 1990) this gives the notion of leadership qualities which is an important aspect towards the teaching profession. Goleman (1998) suggested that it is actually one of the components of social skills, which reveal one's ability to induce desirable responses in others. The eight sub-domains that explain social skills are influence, communication, conflict management, leadership, change catalyst, building bonds, collaborating–cooperation, and team capabilities.

Arnold (2005) argues that effective teachers are those who display empathy toward others and have the ability to interact harmoniously with their environment. This idea supports the concept of facilitative teachers suggested by Grasher (1996). Facilitative teachers are those who empathize with their students and are sensitive to their students' needs. These teachers are willing to reach out to their students, and inevitably become the students' role model.

2.7 Training Curriculum and Labour Participation

Lasonen & Burge (1991) note that one of the major issues relating to the world of work where TVET has played a major role in providing solutions is the question of what changes should be made to school curricula at all levels so that young people are more work-oriented and have the basic skills needed for productive work. According to Mohd Yahya (2003) appropriate curriculum content in institutions is a factor that influences trainers' production quality. Mismatch of skills occurred when there are imbalances in the curriculum content as the produced workforce does not match with industrial needs and the suitability of certain occupations in term of the skills that they are required to have. Current TVET programmes in Africa are not demand driven. They are not developed to meet observed or projected labour market demands (Konayuma, 2008)

Kazilan *et al.,* (2009) a curriculum that could fulfill the criteria as required in the job market could assist and make it easier for students to face challenges and to secure a place for themselves in employment. Vocational students need to be given guidance. Hence, it has been the responsibility of institutions to provide relevant education which fulfils the requirement of current industrial market. Educational curriculum needs to be examined from time to time in order to ensure that the education received by students is relevant and up to date (Kazilan et al. 2009). In the globalized word young people should be equipped with skills that are flexible and relevant to the needs of a constantly evolving labour market (Atchoarena *et al.,* 2007)

A recent internal Eurpean Commission report found that "technical education and vocational training in Zambia is supply-driven, with poor linkages with the employment sector; … under-resourced not cost-effective, unable to meet the new demands of the economy (Grierson, 2002). Nyerere (2009) in a sectoral mapping of the Vocational Training Sector in Kenya found that the current TVET curriculum is weak and not flexible enough to meet the technological changes and diverse needs of different clients. Curriculum development is an area where significant efforts have been made with the objective of improving the relevance and quality of training programs. The extent and

depth of current reforms in this area vary by country, but every country surveyed is currently undertaking some type of initiatives to address the issue of curriculum reform (World Bank, 2005).

According to the MoES&T (2004) the current TIVET curriculum is inflexible and not responsive enough to the changing needs of the labour market. Therefore, there is a mismatch between the skills learned in training institutions and skill demands from the industry. The new curriculum for Youth Polytechnics has been developed by the Ministry of Youth Affairs and Sports (MoYAS) in conjunction with Kenya Institute of Education (KIE) is now in the process of piloting in 35 Youth Polytechnics country wide. The curriculum aims at imparting marketable skills and technical know-how that respond to contemporary labour market demands, to impart marketable and technical skills that respond to contemporary labour market demands by industry as well as to build on gains acquired in basic primary education.

The arguments advanced to rationalize adoption of a diversified curriculum included the need to alter the negative attitude of young people towards manual work and rural livelihood; generate vocational interest; create a better match between the skills learned in school and those needed in the labour market; reduce rural-urban migration and help integrate schools with communities. Keeping programs current and aligned with market demand can be a challenge. The litmus test of effective youth-workforce development programs is whether their graduates find jobs, create their own businesses that offer in-demand products or services, or make the decision to invest in continuing education which are the fundamental tenets of vocational training (Kehler et al., 2009).

Throughout the world, different countries are trying to create closer synergies between the needs and purposes of their education training systems, the local and regional labour markets, and their national economies. This is largely a result of an international consensus which, though contested, argues that people and organisations need to embrace new skills and knowledge at regular periods in order to meet the challenges of a much more dynamic and unstable economic climate (Unwin, 2003). Non-targeted skills development is one of the major weaknesses of TIVET in Kenya. The programmes are

mainly supply-driven and are not designed to meet the projected and observed demand of the labour market. Lack of a tracking framework within which students can be traced into the market to give feedback on quality of training attained and the relevance to the labour market. To ensure that the curriculum offered by TVET institutions is linked to the labour markets, many countries Brazil, Korea, Singapore, Japan and Germany) have put in place strategies, including involvement of the employers, in the curriculum development and general management of the TVET systems (Onsomu et al. 2009).

For instance, the Australia-China (Chongqing) Vocational Education and Training Project (2002 - 2007) established five industry co-ordination committees at municipality level. Their task was to encourage industry to make signiicant inputs into TVET training standards, curriculum and delivery. These had limited impact in a country where industry is not yet acknowledged as a partner in TVET (Comyn & Barnaart, 2010). This reinforces the argument for graduate-tracking studies, regular labour market skills surveys, and future skills-needs projections. This active labour market approach will enable governments to be better placed to deliver manpower development plans, training curriculum design and appropriate facilities through the private and public sectors (African Economic Outlook, 2008).

Kehler *et al.*, (2009) recommend that curriculum developers and designers should continually monitor and evaluate their programs and curricular in relation to the market demand. The problem is that market demand may shift between the time a program is designed and when graduates of the program finally enter the workforce. Without immediate and continuous feedback from the market about the supply and demand for skills, programs run the risk of flooding the market with too many candidates in a particular area, thus decreasing opportunities for all youth.

2.8 Labour participation in the construction industry

The working age population and labour force participation rates are important determinants of employment. In Kenya the working age population includes persons between 15 and 64 years. Inactive labour consists of all those persons within the working age who are outside the labour market. According to UNESCO, ILO (2002)

vocational training is understood to be: (a) an integral part of general education; (b) a means of preparing for occupational fields and for effective participation in the world of work; (c) an aspect of lifelong learning and a preparation for responsible citizenship; (d) an instrument for promoting environmentally sound sustainable development; (e) a method of facilitating poverty alleviation.

Most of the unemployed in 1999 were between 20 and 24 years of age (29.9%) followed by 25 to 39 years of age (16.2%) and 15 to 19 years of age (15%). The number of unemployed females was almost double that of males. 57.1 percent of the total unemployed lived in urban areas. In this year, it was estimated that 70 percent of the 500,000 new entrants in the labour force were absorbed into the informal sector. The youth polytechnics are considered to be the institutions most suited for the provision of skills needed by the informal sector (African Development Bank, 2003).

The study will measure the effect of vocational training on labour participation of youth through use of secondary data from labour market surveys on employment trends and also employers attitude and perception towards vocational trainees. This information will comprise both employed and self employed vocational training graduates in both formal and informal sectors. Being employed means having a job and being employable means having the qualities needed to maintain a job and progress at the work place (de Guzman & de Castro, 2008). According to Psacharopoulos (at el. 2004) employability can be affected by labour market institution, skills, and knowledge enhanced by education and training.

2.9 Theoretical framework

The theoretical framework of the study is a structure that can hold or support a theory of a research work. It presents the theory which explains why the problem under study exists. Thus, the theoretical framework is but a theory that serves as a basis for conducting research. The theory that lends itself to the present study is the Human Capital.

The theoretical framework most responsible for the wholesome adoption of education and development policies has come to be known as human capital theory. Based upon the work of Schultz (1971), Sakamota and Powers (1995), Psacharopoulos and Woodhall (1997). Human capital theory presupposes investments, activities and processes that produce vocational and technical education knowledge, skills, health or values that are embodied in people. It implies building an appropriate balance and critical mass of human resource base and providing an enabling environment for all individuals to be fully engaged and contribute to goals of an organization or a nation (Enyekit et al, 2011). According to Schultz (1963) human capital is a theory which displayed the role of investment in education in order to boost economic and social achievements. Investment can be seen as a role to prepare facilities or as financial contribution to increase the quality of education.

According to Olaniyan & Okemakinde (2008) the focus on education as a capital good relates to the concept of human capital, which emphasizes that the development of skills is an important factor in production activities. It is widely accepted that education creates improved citizens and helps to upgrade the general standard of living in a society. Becker (1962; 1964) believed that the height of workforce production have positive relationship with the educational and training form in which the higher the educational and training form a person gets, the higher the productivity achievement of an individual. The Kenyan government has made huge investments through concerted efforts with its development partners, NGOs and community organisations to improve skill development among its youth through vocational training. Policy documents (MoES&T, 2003; 2004; 2005) all reflect the importance of vocational training aas a mechanism to increase youth labour participation rates in Kenya. Vocational training is viewed as providing an individual with the minimum skills to enter into the world of work and expoese them to a range of skills and experiences (Nyerere, 2009). This theory will be the basic understanding in choosing the skills required by employees or trainees where in the end of it they will be able to identify the effects of the skill selection (Kazilan et al, 2009). The present labour market (employers) require employees whom are both qualified in technical skills and also in basic and soft skills which include reading, counting (basic arithmetic), and other skills such as problem solving, decision

making, broad mind, trustable, good attitude, able to cooperate and effective (Buck & Barrick, 1987).

According to Olaniyan & Okemakinde (2008) the role of education in the growth and development process is to view human capital as a critical input for innovations, research and development activities. From this perspective, education is seen as an intentional effort to increase the resources needed for creating new ideas, and thus, any increase in education will directly accelerate technological progress. This implies that there is need for self reliance for the individual in the contemporary market which corresponds to a need for entrepreneurship among the populace. For example, vocational students are encouraged to get involved in business after completing their studies with the skills attained. For those who choose to get involved in business, aspect of financial management becomes the important feature in management (Kazilan et al, 2009).

The review of previous research on the application of the Human Capital model to education and training it is evident that investments in education and training do infact have a strong correlation to the ability of an individual to participate in the labour market and improve their productitvity. However, as Kazilan et al. (2009) suggest the participation of vocational trainess to participate in self employment activities; there is lack of a clear mechanism on how this can be achieved. The study will therefore seek to establish the effectiveness of the vocational training curriculum to the extent to which it contribute to equipping the trainees for self reliance after their training.

Human capital theory in its arguments gives high precedence that investments to the education sector would lead to productivity among vocational trainees and would lead to high labour participation. Despite huge investments to the vocational training sector in Kenya there has not been less than signifacicant impact of youth participation in the labour market. The present study therefore seeks to investigate the effectiveness of vocational training operations as the independent variables of physical facilities and equipment, quality of instructors and vocational training curriculum from the perspective of the trainees who are the key informants of the study.

2.10 Conceptual framework

The conceptual framework (see Figure 2.1) consists of the independent variables of the study (training equipment and facilities , training instructors capacity and training curriculum) and the perceived influence that they have on the dependent variable (labour participation in the construction companies). The intervening variables of the study are financing and demographic charateristics. Intervening variables have effects on both independent and dependent variables where availability of financing may increase the effectiveness of vocational training. Government educational policies are the moderating variable and this have an effect on the relationship between vocational training and employability of the youth. For instance, the retirement age and the minimum working age would determine the labour participation rates.

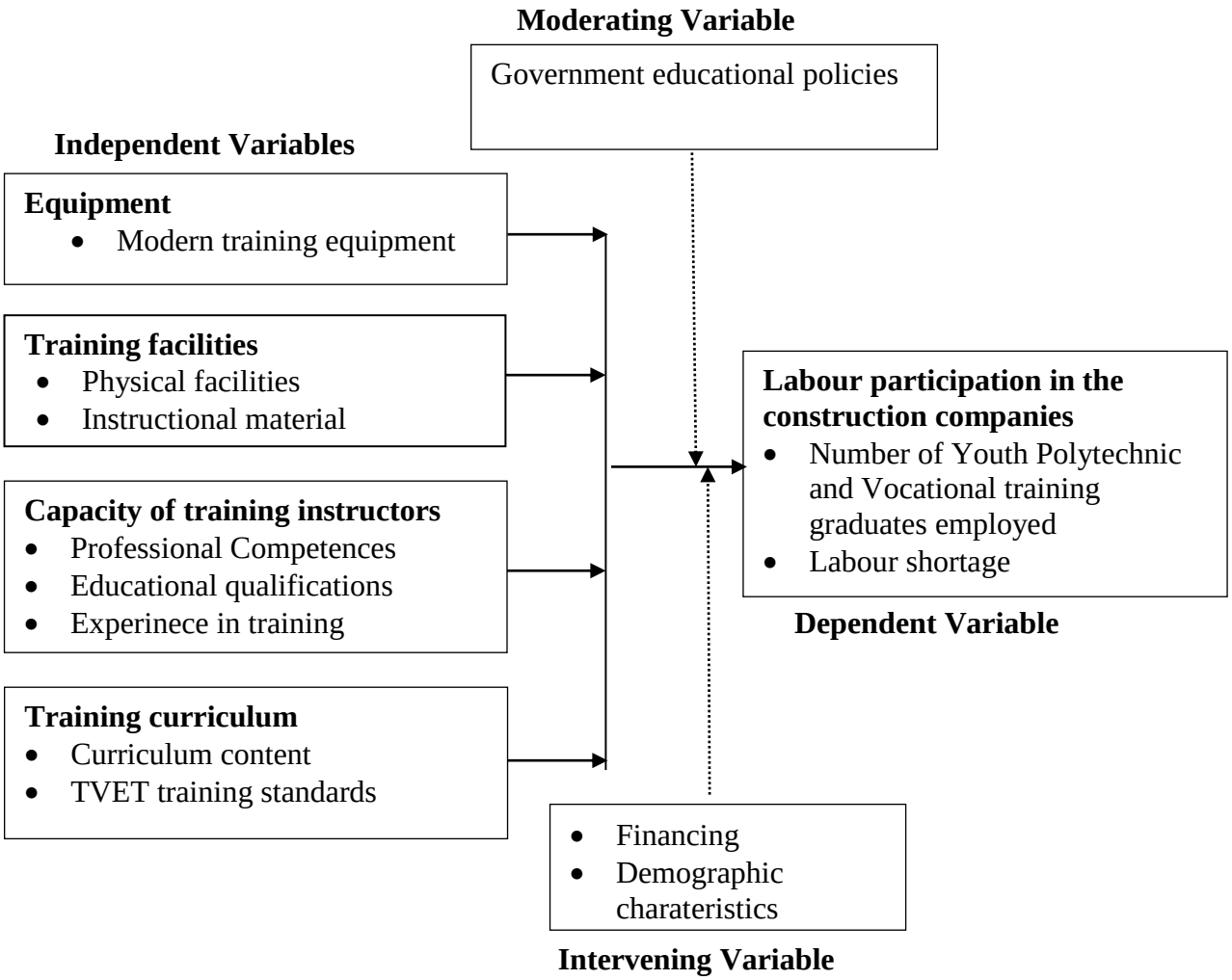

Figure 2.1: Conceptual Framework

Demographic charasteristics - is the characteristics of a population, such as the age, gender and income of the people within the population.

Financing – is the act of providing funds for an activities, making purchases or investing.

Government education policies - are the principles and government policy-making in the educational sphere, as well as the collection of laws and rules that govern the operation of education systems.

Vocational training – This is any from of training undertaken to provide the learner with lifelong the skills and knowledge that would enable the individual to involve in economic development activities.

2.11 Summary of literature

Literature reviewed suggests a plethora of work in the area of vocational training in both developed and developing countries. For instance, employability skills among the students of technical and vocational training centers in Malaysia (Kazilan et al. 2009); factors influencing the attractiveness of a technical and vocational education and training institution in Kenya (Simiyu, 2009); technical & vocational education and training (TVET) sector mapping in Kenya (Nyerere, 2009) which have highlighted different factors affecting vocational training such as mismatch between training and the labour market, poor infrastructure and lack of participation from youth population. Nonetheless, so far, there is no empirical data regarding employability skill of students who have studied in training centers. Thus, this study would like to explore the labour participation of skills of students in Youth Polytechnics.

2.12 Research Gap

The empirical studies focused on effect of technical and vocational training on students skills, factors influencing attractiveness of technical and vocational training in kenya(Simiyu, 2009), impact of vocational training on skilled labour shortage within the nigerian construction sector and technical & vocational education and training (TVET) sector mapping in Kenya(Nyerere, 2009). This study intends to fill the research gap by studying the influence of vocational training on labour participation in the construction companies in Nairobi County, Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter entails the various methodologies that the study sought to employ so as to avail for the effective collection of data and its analysis. It comprised of the research design, target population, the sample and sampling procedure, data collection methods and data analysis techniques that were applied. The ethical considerations of the study are also included in the chapter.

3.2 Research Design

The study employed the descriptive survey research design that involves incorporation of descriptive research which seeks to answer the "what" question. Descriptive research seeks to contribute information to our knowledge of the shape and nature of our society. According to Kerlinger (1973) a descriptive study is not restricted to fact finding; but may often result in the formulation of important principles of knowledge and solutions to significant problems.This design involves the measurement, classification, analysis, comparison and interpretation of data. The design enabled the researcher target respondents from Youth Polytechnics that were sampled in the study; it also gave guidance to other research studies in the area of vocational training.

3.3 Target Population

The target population for this study will be (4) youth polytechnics and six (6) vocational centres in Nairobi County (NCC Taskforce On Education Report, 2015). The respondents of the study were graduates of vocational training institution, who were working in the local construction companies, employers , managers and instructor of 4 youth polytechnics and six 6 vocational centres in Nairobi County. The target respondents will be a total 250 respondents comprising of 216 graduate working in the construction companies, 10 Managers of Youth Polytechnics , 4 Directors of Technical and Vocational Education and Training and 20 employers of Youth Polytechnics graduates in Nairobi County. The key informants of the study were Managers of Youth

Polytechnics due to their familiarity with the management and operations of Youth Polytechnics and Directors of Technical and Vocational Education and Training in Nairobi county.

Table 3.1: Target Population

Population	Frequency
Graduates	216
Managers	10
Directors	4
Employees	20
Total	**250**

Source (Author, 2017)

3.4 Sample Size and Sampling Procedure

3.4.1 Sample size

A sampling frame is a complete list of all the members of the population that we wish to study (Kothari, 2004).The sampling frame for this study was a list of all graduates working in the construction companies , managers of youth polytechnics , director of TVET education and employers of youth polytechnics graduates. The study adopted a mathematical formula for the purpose of determining the sample size of graduates. (Taro Yemane, 1970) has suggested the following mathematical formula for determining sample size.

$$N = \frac{n}{1+N(e)2}$$

Where, N is the total population size, and e is the error or confidence level. The conventional confidence level of 95% was used to ensure a more accurate result from the sample. Based on this, the error term would equal to 0.05. Using the total population of 216 and error margin of 0.05, the sample size was calculated as follows.

$$n = \frac{N}{1+N(e)2}$$

$$n = \frac{216}{1+216(0.05)2}$$

$$n = \frac{216}{1.54}$$

n=140 graduates

The sample size of 140 graduates was randomly selected . Purposive sampling was used in the selection of 10 managers of youth polytechnics , 4 directors of Technical and Vocational Education and Training and 20 employers of Youth Polytechnics graduates in Nairobi County. Thus the sample size of the study was 174 respondents.

Table 3.2: Sampling Frame

Population	Frequency	Sample
Graduates	216	140
Managers	10	10
Directors	4	4
Employees	20	20
Total	**250**	**174**

Source (Author, 2017)

3.4.2 Sampling Procedure

According to Cooper and Schindler (2003), a sampling frame is a list of elements from which the sample is actually drawn and closely related to the population. This study was a census survey of 4 youth polytechnics and six 6 vocational centres in Nairobi County. In choosing census survey, the practicalities and cost of undertaking a census, representativeness and the nature of the survey as well as population had been considered. The unit of analysis comprised of 4 youth polytechnics and six 6 vocational centres in Nairobi County. Thus the study conducted a census survey owing to the small number of observation unit. Ngechu (2004) emphasizes the importance of selecting a

representative sample by use of a sampling frame. The study employed purposive sampling in selecetion of the respondents.

3.5 Research instruments

The study sought to use primary data defined as that collected directly from the intended respondents. Various data collection techniques were employed with regard to the descriptive survey research design; these include questionnaires, key informats interviews and observational techniques whereas secondary data was collected through desk research, published reports and survey results. Integrating both primary and secondary data was enrich information gathered by the study and offered a more rigid conclusion of the scenario in the field of study.

Questionnaires: This study used questionnaires for getting information from respondents on their attitudes, beliefs and values about certain phenomenon or the subject under study. There are two types of questionnaires based on the format of the questions. Open-ended questionnaire items allow respondents to give their own impression of the problem. This form of information tends to be more qualitative and seeks to arrive at a more definite response whilst close-ended questionnaire items limit the response of the interviewee much to the liking of the interviewer whereby these responses are categorized into various groupings that would elicit a general description of the study objectives. Two types of questionnaires were developed one for the Vocational Trainees and the other for would be enterprises (employers). These instruments were administered to the sampled vocational training institutions and to enterprises located in vicinity of the training institutions, through drop and pick method.

Key Informant Interviews : Interviews mainly take two forms; the structured interview and semi-structured interview process. By using the unstructured interview technique, the interviews were less formal and the interviewee were allowed to lead discussions into new directions. Key informants are people who by virtue of their placement have first-hand knowledge about a topic of interest. Semi-structured interviews were conducted with key-informants who are the managers of vocational training.

Observation : The study also used this technique so as to avail the researcher with the opportunity to view the environment in which the training occurs. The observation schedule was used in identifying, explaining and describing the physical facilities and infrastructure of the institution that would shed more light on how the institution was run. The units of observation included the training workshops, instruction spaces in the training institutes and facilities in use during instruction.

3.5.1 Pilot Test

A pilot study was carried out to pretest and validate the questionnaire. Cronbach's alpha methodology, which is based on internal consistency, was used. Cronbach's alpha measures the average of measurable items and its correlation.

3.5.2 Validity of research instruments

Cooper and Schindler (2008) define validity as a characteristic of measurement concerned with the extent that tests measure what the researcher actually wishes to measure and that the difference found with a measurement tool reflect true differences among participants drawn from a population. It involves whether the results given by the study are transferable to other groups (i.e. populations) of interest (Last, 2001). The researcher sought the opinion of the University supervisor on the chosen study design. Beazley (2002) notes that validity stems more from the appropriateness, thoroughness and effectiveness with which those methods are applied and the care given to thoughtful weighing of the evidence than from the application of a particular set of rules or adherence to an established tradition.

3.5.3 Reliability of research instruments

Orodho, (2004) describes reliability as the degree to which empirical indicators are consistent in two or more trials in an attempt to measure the theoretical concept. The researcher used test-retest method to obtain reliability of the measuring instrument. This technique involved administering the same instrument twice in span of two weeks to the same group of subjects. Scores from the same testing periods were then correlated. Reliability co-efficient were computed by use of Pearson Correlation coefficient (r) as follows:-

$$rxy = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{\left\{n\Sigma X^2 - (\Sigma X)^2\right\}\left\{n\Sigma Y^2 - (\Sigma Y)^2\right\}}}$$

Where

ΣX = the sum of scores in X distribution

ΣY = the sum of scores in Y distribution

Σ = the symbol of summation

ΣX^2 = the sum of squared scores in X distribution

ΣY^2 = the sum of squared scores in Y distribution

ΣXY = the sum of products of paired X and Y scores

n = the total number of subjects

Orodho, (2004) states that when the value of (r) is equal to +1.00, then the two sets are in perfect agreement and -1.00 when they are in perfect disagreement. A correlation coefficient (r) of about 0.70 is considered to be high enough to judge the reliability of the instrument. Reliability of the questionnaire was through a pilot study which will be carried out among 15% of the population who were not included in the final data collection exercise.

3.6 Data Collection Procedure

A permit from National Council for Science Technology and Innovations was applied for before embarking on the study. Respondents were selected through a random procedure and the researcher sought an appointment with them. The graduates were contacted through the human resource office in their respective workplaces. The questionnaires were administered by the researcher and trained research assistants in person, and the interviews conducted. The key informants' interviews were then conducted by the researcher on appointment with the heads of departments in their offices.

3.7 Data Analysis Techniques

In this study, a descriptive approach to data analysis were used to analyze the data collected on the influence of vocational training on labour participation in the construction companies in Nairobi County, Kenya. The researcher perused the completed questionnaires. Quantitative data collected was analyzed using SPSS and presented through proportions, means, standard deviations and frequencies. This involved tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions using the SPSS. Content analysis was used to analyze data that is qualitative in nature or aspects of the data collected from the open ended questions. In addition, a multiple regression was used to measure the quantitative data and will be analyzed using SPSS. The regression equation is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where, Y is the dependent variable (Labour Particpation), β_0 is the regression constant, β_1, β_2 and β_3 are the coefficients of the independent variables, X_1 is training facilities and equipments , X_2 is capacity of the training instructor and X_3 is training curriculum.

3.8 Ethical Considerations

The objectives of the research were explained to the informants and respondents who would then decided on whether they wanted to participate or not. The respondents and key informants were assured that all information collected would be treated in confidence and only used for the purpose of this study. The researcher also sought to acquire a letter of transmittal from the University of Nairobi and was used to generate confidence in respondents to participate in the study.

3.9 Operationalization of definition of variables

Table 3.3: Operationalization of definition of variables

Objectives	Variables	Indicators	Measuring Scales	Data Collection Tool	Type Of Analysis
To establish how equipment influence labour participation in the construction companies in Nairobi County, Kenya.	**Independent variable** Equipment	• Teaching equipments	Ordinal/ Nominal	Questionnaire	Descriptive statistics
To establish how training facilities influence labour participation in the construction companies in Nairobi County, Kenya.	**Independent variable** Training facilities	• Physical facilities • Sufficient modern equipment • Training textbooks	Ordinal/ Nominal	Questionnaire	Descriptive statistics
To determine how instructor capacity influence labour participation in the construction companies in Nairobi County, Kenya	**Independent Variable** Capacity of training instructors	• Professional Skills • Professional Competences • Education qualifications • Experience in training	Ordinal	Questionnaire	Descriptive statistics
To examine the influence of training curriculum on labour participation in the construction companies in Nairobi County, Kenya	**Independent Variable** Vocational training Curriculum	• Curriculum content • TVET training standards • Certification of training	Ordinal	Questionnaire	Descriptive statistics
Labour participation	**Dependent Variable** Labour participation in the construction companies in Nairobi County, Kenya	• Number of Youth Polytechnic and Vocational Centres graduates employed • Labour shortage • Skilled workforce	Ordinal	Descriptive statistics	Descriptive statistics

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter discusses the analysis, interpretation and presentation of the findings obtained from the field. The purpose of this study was to establish the influence of vocational training on labour participation in the construction companies in Nairobi County, Kenya. Further the study sought to establish how: equipment, training, instructor capacity and how training curriculum influence labour participation in the construction companies in Nairobi County, Kenya. The chapter presents the social demographics characteristics of the respondents and findings of the analysis based on the objectives of the study. Descriptive and inferential statistics have been used to discuss the findings of the study.

4.2 Response rate

This study targeted a sample size of 140 graduates who were randomly selected. Also 10 managers of youth polytechnics, 4 directors of Technical and Vocational Education and Training and 20 employers of Youth Polytechnics graduates in Nairobi County all making a sample size of 174 respondents. Out of 140 graduates 138 responses were obtained giving a response rate of 98.6%. On employers response rate all the 20 employers questionnaires were dully filled and returned making a response rate of 100%

4.3 General information about the Graduates

4.3.1 Socio - demographic characteristics of students findings

The study sought to determine the gender of the respondents

The respondents were requested to indicate their gender. The results were as shown in Table 4.1

Table 4.1: Gender of the respondent

Gender	Frequency	Percent
Male	83	60.1
Female	55	39.9
Total	**138**	**100**

According to the study findings, 60.1% of the graduates were male and 39.9% were female. This shows that majority of the graduates involved in the study were males and also that the study included both genders.

The study sought to determine the age category of the respondents

The graduates were requested to indicate their age category. The results were as presented in the Table 4.2

Table 4. 2:Age bracket

Age	Frequency	Percent
15 to 20 Yrs	2	1.4
20 to 25 Yrs	45	32.6
25 to 30 Yrs	37	26.8
30 to 35 yrs	54	39.1
Total	**138**	**100.0**

From the findings, 39.1% of the graduates were of the age between 30 and 35 years, 32.6% were of the age between 20-25 years, 26.8% were aged between 25 and 30 years and 1.4 % were between 15-20 years. This indicates that most of the graduates are of the age between 30-25 years.

The study sought to determine the marital status of the Respondents

The graduates were requested to indicate their marital status. The results were as shown in Table 4.3

Table 4. 3:Marital status

Marital Status	Frequency	Percent
Single	69	50
Married	50	36.2
Divorced	4	2.9
Widowed	15	10.9
Total	**138**	**100**

According to the findings, 50% of the graduates are single, 36.2% are married, 10.9% are widowed and 2.9% are divorced. This indicates that most graduates are single nevertheless the study involved respondents from all marital status.

The study sought to determine the edmployment status of the Respondents

The respondents were asked to indicate their employment status. The results were as shown in Table 4.4

Table 4. 4: Employment Status

Employment Status	Frequency	Percent
Contract	44	31.9
Casual	56	40.6
Temporary	38	27.5
Total	138	100.0

From the findings, 40.6% of the graduates work on casual basis, 31.9% work on contract basis and 27.5% work on temporary basis. This shows that most graduates work on casual basis.

The study sought to determine the training courses undertaken by the Graduates

The graduates were requested to indicate the training course they undertook. The results were as presented in Table 4.5.

Table 4. 5: Training course

Training Course	Frequency	Percent
Painting	19	13.8
Concreting	17	12.3
Block-laying	21	15.2
Carpentry & Joinery	43	31.2
Masonry	24	17.4
Plumbing	14	10.1
Total	138	100.0

According to the findings, 31.2% of the graduates trained on Carpentry & Joinery, 17.4% trained on masonry, 15.2% trained on block-layering, 13.8% trained on painting, 12.3%

trained on concreting and 10.1% trained on plumbing. This indicates that most of graduates trained on carpentry and joinery.

4.3.2 Influence of training facilities on labour participation in the construction companies

The study sought to determine whether the graduates are accommodatied by the Institution

The students were requested to indicate if they are accommodated by their vocational institutions. The results were as shown in Table 4.6

Table 4. 6: Accommodation by the institution

	Frequency	Percent
Yes	41	29
No	97	71
Total	138	100

From the findings 71% of the graduates disagreed that they were accommodated by their vocational institutions whereas 29% agreed that they were accommodated by their vocational institutions. This indicates that most of the graduates are not accommodated by their Vocational institutions.

The study sought to determine the adequacy of training facilities and equipment in the institution.

The graduates were asked to rate the adequacy of training facilities and equipment in their institution. The results were as presented in Table 4.7

Table 4. 7:Adequacy of training facilities and equipment

Adequacy of training Facilities	Frequency	Percent
Highly Adequate	7	5.1
Adequate	28	20.3
Neutral	13	9.4
Inadequate	58	42
Highly inadequate	32	23.3
Total	**138**	**100**

According to the findings, 42% of the graduates indicated that the training facilities and equipment in their institutions were inadequate, 23.2% indicated that the training facilities and equipment's in their institutions were highly inadequate. Further 20.3% of the graduates indicated that the training facilities and equipment's in their institutions were adequate, 9.4% of indicated that the training facilities and equipment's in their institutions were neither adequate nor inadequate and 5.1% indicated that the training facilities and equipment's in their institutions were highly adequate. This is an indicator that there is inadequate training facilities and equipment in the training insitutions as was shown by most of the respondents.

The study sought to determine the quality of training in the institution

The graduates were requested to rate the quality of training in their institutions. The results were as presented in Table 4.3. A scale whereby 1 = Strongly Agree (SA), 2 = Agree (A), 3 = Neutral (N), 4 = Disgree (D) and 5 = Strongly Disagree (SD) was used.

Table 4. 8:Quality of training

Statement	SA	A	N	D	SD	Mean	Std Dev.
Learning materials and tools were sufficient for an effective learning environment	8	4	1	2	9	2.70	0.35
Training facilities were well coordinated to allow for effective learning	4	2	3	5	4	2.51	0.29
There was consultations on the needs and expectations of students	3	6	2	4	3	2.51	0.34
There were sufficient modern equipment in the institution	7	5	1	9	6	2.94	0.50
There are enough instructional material in the institution	1	5	0	7	5	2.71	0.38

According to the study results, majority of the graduates were neutral that there were sufficient modern equipment in the institution as was shown by mean 2.94 and standard deviation 0.50, also that there are enough instructional material in the institution by mean 2.71 and standard deviation 0.38. Also the respondents were neutral that learning materials and tools were sufficient for an effective learning environment by mean 2.70 and standard deviation 0.35, and also that there was consultations on the needs and expectations of students by mean 2.51 and standard deviation 0.34. Additionally majority of respondents

were neutral that; training facilities were well coordinated to allow for effective learning by mean 2.51 and standard deviation 0.29. The study agrees with those of Jamieson *et al.* (2005), they found out that curriculum and facility design are related, and their findings demonstrate that the physical learning environment has an influence on students' social and scholastic behavior.

4.3.3 Influence of equipment on labour participation in the construction companies

The study sought to determine the availability of modern training equipment

The graduates were asked to indicate whether their institutions had modern training equipment. The results are as shown in Table 4.9.

Table 4. 9:Modern training equipment

	Frequency	**Percent**
Yes	33	23.9
No	105	76.1
Total	138	100

From the findings, 76.1% of the graduates disagreed that their institutions had modern training equipment whereas 23.9% agreed that their institutions had modern training equipment. This implies that most training institution have no modern training equipment.

The study sought to determine the adequacy of training equipment

The graduates were requested to indicate the degree of adequacy of training equipment in their vocational institution. The results were as presented in Table 4.10

Table 4. 10:Adequacy of training equipment

	Frequency	**Percent**
Adequate	38	27.5
Neutral	51	37
Inadequate	36	26.1
Highly inadequate	13	9.4
Total	**138**	**100**

From the results 37% of the graduates indicated that the training equipment in their vocational institutions were neither adequate nor inadequate, 27.5% indicated that the training equipment in their vocational institutions were adequate. Further the study indicated that 26.1% of the graduates indicated that the training equipment in their vocational institutions were inadequate and 9.4% indicated that the training equipment in their vocational institutions were adequate. This shows that the training equipment in the vocational institutions are neither adequate nor inadequate as was indicated by most of the respondents.

4.3.4 Influence of training instructors capacity on labour participation in the construction companies.

The graduates were requested to rate the training instructor's capacity in their institution. The results were as shown in Table 4.6. The respondents were requested to rate their opninon based on this scale; 1 = Strongly Agree (SA), 2 = Agree (A), 3 = Neutral (N), 4 = Disgree (D) and 5 = Strongly Disagree (SD).

Table 4. 11: Training instructor's capacity

Statement	SA	A	N	D	S D	M	SD
Training plans were well presented during learning by instructors	38	57	12	21	10	2.33	0.29
Instructors exhibited professionalism in their duties and responsibilities	65	48	10	9	6	1.86	0.24
Training instructor was readily available for consultation during and after classes	32	50	13	29	14	2.59	0.31
The instructor was conversant with the course and the broader work environment	36	54	14	21	13	2.43	0.27
There were effective communication between the instructor and trainee during and after classes	28	45	11	38	16	2.78	0.39
Our training instructors had the required education qualification for the course	39	46	16	25	12	2.46	0.26
Our training instructors experienced in training the course	42	52	16	18	10	2.29	0.24

From the findings, the graduates agreed that; Instructors exhibited professionalism in their duties and responsibilities this was shown by a mean of 1.86 and a standard deviation of 0.24 and also that their training instructors are experienced in training the course as was shown by a mean of 2.29 and a standard deviation of 0.24. Further respondents agreed that

training plans were well presented during learning by instructors as was shown by a mean of 2.33 and a standard deviation of 0.29 also that the instructor was conversant with the course and the broader work environment as was shown by a mean of 2.43 and a standard deviation of 0.27. Additionally respondents also agreed that their training instructors had the required education qualification for the course as was shown by a mean of 2.46 and a standard deviation of 0.26. Also the study indicated that majority of the respondents were neutral that; there were effective communication between the instructor and trainee during and after classes as was indicated by a mean of 2.78 and a standard deviation of 0.39. Also the respondents were neutral that training instructor was readily available for consultation during and after classes as was indicated by a mean of 2.59 and standard deviation of 0.31. The study findings concurs with those of Grollmann (2008), he asserts that there are two major obstacles to the professionalization of teachers in vocational education: the low status of vocational education and the problem of increasing the status of the teaching profession in general.

4.3.5 Infuence of Vocational training curriculum on labour participation in the construction companies

The graduates were requested to rate the training curriculum in their institution. The results are as shown in Table 4.7. A scale whereby; 1 = Strongly Agree (SA), 2 = Agree (A), 3 = Neutral (N), 4 = Disgree (D) and 5 = Strongly Disagree (SD) was used.

Table 4.12: Vocation training curriculum

Statement	SA	A	N	D	S D	Mean	Std Dev
The training curriculum was relevant to what I do now	28	50	13	29	18	2.70	0.33
Training curriculum offered skills that I apply in my daily work	35	49	16	24	14	2.51	0.27
The curriculum delivery was a replica of what I do in my current job	42	54	11	20	11	2.30	0.27
The curriculum offered enough practice skills which I use in my current job	30	46	18	28	16	2.67	0.30

According to the results, majority of graduates agreed that, the curriculum delivery was a replica of what they do in their current job as was shown by a mean of 2.30 and a standard deviation of 0.27. Further the study indicated that majority of respondents were neutral that;

the training curriculum was relevant to what they do now this was shown by a mean of 2.70 and a standard deviation of 0.33, also that the curriculum offered enough practice skills which they use in their current job as was shown by a mean of 2.67 and a standard deviation of 0.30. Additionally respondents were neutral that training curriculum offered skills that they apply in their daily work as was shown by a mean of 2.51 and a standard deviation of 0.27. The study findings agrees with those KESSP (2005) which identifies inadequate modern equipment as one of the issue and constraints facing vocational training institutions. Some factors are responsible for this state affair from poor financing of TVET centers to the high rural to urban migration which has put a strain on social utilities such as education and health. Further the study agrees with those of Opiyo and Agwanda (2008) in the Kenyan Youth Fact Book asserts that increased youth migration has far-reaching impacts. It increases the strain for jobs without necessarily improving the job conditions of those who are left in rural areas; impacts provision of public goods, education, utilities, housing, and infrastructure

4.3.6 Influence of labor participation in the construction companies.

The graduates were asked to indicate their level of agreement relating to statements in Table 4.8 about labor participation. A scale whereby 1 = Strongly Agree (SA), 2 = Agree (A), 3 = Neutral (N), 4 = Disgree (D) and 5 = Strongly Disagree (SD) was used.

Table 4.13: Labor participation

Statement	SA	A	N	D	S D	Mean	Std Dev.
There is presently a shortage of workforce in the Kenya construction companies	52	46	11	16	13	2.22	0.22
There is presently a shortage of quantity or number of Tradesmen available for work in the companies	28	35	9	49	17	2.94	0.50
There is presently a shortage of competency or quality of Tradesmen available	52	41	11	21	13	2.29	0.23
There is presently a shortage predominant or particular to masonry Trades	40	55	13	16	14	2.34	0.26
There is presently a shortage predominant or particular to with wood trades	38	54	14	18	14	2.39	0.26
There is presently a shortage predominant or particular with plumbing trades	43	58	12	15	10	2.21	0.27

From the results, most of the graduates agreed that, there is presently a shortage predominant or particular with plumbing trades as was shown by a mean of 2.21 and a standard deviation of 0.27, also that there is presently a shortage of workforce in the Kenya construction companies as was indicated by a mean of 2.22 and a standard deviation of 0.22. Further respondents agreed that there is presently a shortage of competency or quality of tradesmen available this was shown by a mean of 2.29 and also a standard deviation of 0.23. Additionally the study indicated that majority of the respondents agreed that: there is presently a shortage predominant or particular to masonry trades this was shown by a mean of 2.34 and standard deviation of 0.26 and also that there is presently a shortage predominant or particular to with wood trades this was shown by a mean of 2.39 and standard deviation of 0.26. Also the study indicated that respondents were neutral that; there is presently a shortage of quantity or number of tradesmen available for work in the companies this was shown by a mean of 2.94 and a standard deviation of 0.50.

The study sought to determine the qualification acquired at the end of vocational training

The graduates were asked to indicate the qualification that they acquired at the end of their vocational training. The results are as shown in Table 4.15.

Table 4. 14:Qualification acquired

Qualification	Frequency	Percent
Grade 3	41	29.7
Grade 2	56	40.6
Grade 1	32	23.2
Certificate	9	6.5
Total	**138**	**100**

From the findings, 40.6% of the graduates acquired grade two acquired at the end of their vocational training, 29.7% acquired grade three acquired at the end of their vocational training, 23.2% acquired grade one and 6.5% acquired certificate. This shows that most of the graduates acquire grade two but they were all qualified since they had acquired a certificate.

The study sought to examine the relationship of training and labor market

The graduates were asked to indicate the extent in which they thought that the training they received was related to the current labor market. The results are presented in Table 4.15.

Table 4. 15:Relationship of training and labor market

	Frequency	Percent
Highly Related	38	27.5
Related	48	34.8
Neutral	13	9.4
Unrelated	36	26.1
Highly Unrelated	3	2.2
Total	**138**	**100**

From the results, 34.8% of the graduates indicated that the training they received is related to the current labor market, 27.5% indicated that the training they received is highly related to the current labor market, 26.1% indicated that the training they received is unrelated to the current labor market, 9.4% indicated that the training they received is neither related nor unrelated to the current labor market and 2.2% indicated that the training they received is highly unrelated to the current labor market. This shows that most of the training received by the graduates is related to the current labor market.

The study sought to determine if the graduates possessed skills required by employers

The graduates were asked to indicate the extent to which they thought they possess the skilled required by the employers. Results were as shown in Table 4.16.

Table 4. 16:Skills Required by Employers

	Frequency	Percent
Highly Skilled	28	20.3
Skilled	39	28.3
Neutral	11	8
Unskilled	52	37.7
Highly Unskilled	8	5.8
Total	**138**	**100**

From the findings, 37.7% of the graduates indicated that they were unskilled, 28.3% indicated that they were skilled, 20.3% indicated that they were highly skilled, 8% indicated that they were neither skilled nor unskilled and 5.8% indicated that they were highly unskilled. This shows that some graduates are skilled and others are unskilled.

The study sought to determine the skills acquired in training by the graduates

The graduates were requested to indicate the skills that they received in their training. The results were as shown in Table 4.17.

Table 4. 17:Acquired skills in training

	Frequency	**Percent**
Commmunication Skills	34.8	48
Negotiation skills	21	29
Life skills	14.5	20
Financial management skills	10.9	15
Entrepreneurship skills	18.8	26
Total	**100**	**138**

From the results 34.8% of the graduates acquired communication skills, 21% acquired negotiation skills, 18.8% acquired entrepreneurship skills, 14.5% acquired life skills and 10.9% acquired financial management skills. This shows that most of the graduates acquired communication skills. The study findings agrees with those of (de Guzman & de Castro, 2008). He stated that being employed means having a job and being employable means having the qualities needed to maintain a job and progress at the work place. Also according to Psacharopoulos (at el. 2004) who indicated that employability can be affected by labour market institution, skills, and knowledge enhanced by education and training.

4.4 Findings from employers on the influence of vocational training on labour participation in the construction companies.

This section analyses the employers respondents. The analysis is shown on each category as indicated on each section.

4.4.1 The study sought to determine whether employers offer employment to youth polytechnic graduates.

The employers were asked to indicate whether they employed youth polytechnic graduates. The results were as presented in Table 4.18.

Table 4.18 : Employment of youth polytechnic graduates

	Frequency	**Percent**
Yes	6	30
No	14	70
Total	**20**	**100**

From the findings, 70% of the employers indicated that they employed youth polytechnic graduates while 30% disagreed. This implies that most employers employ youth polytechnic graduates.

The study sought to determine frequency of employment of youth graduates

The employers were requested to indicate the number of youth polytechnic graduates that they had employed in the last 5 years. The results were presented as in Table 4.19

Table 4.19: Frequency of employment of youth graduates

	Frequency	**Percent**
Less than 5	1	16.7
6-10	4	66.7
11-15	1	16.7
Total	**6**	**100.0**

According to the findings, 66.7% of the employers who indicated that they employed youth polytechnic graduates, indicated that they had employed 6 to 10 youth polytechnic graduates in the last 5 years, 16.7% indicated that they had employed 11 to 15 youth polytechnic graduates and also 16.7% of the employers indicated they had employed less than 5 youth

polytechnic graduates. This implies that most employers had employed 6 to 10 youth polytechnic graduates in the last 5 years.

4.4.2 The influence of recruitment policy on labour participation in the construction companies.

The study sought to determine the recruitment methods used by employers.

The employers were asked to indicate how they recruited youth polytechnic graduates. The findings were presented as in Table 4.20

Table 4. 20:Recruitment methods

	Frequency	Percent
Media Adverts	7	35
Networking	6	30
Recruitment Agencies	4	20
Referrals	3	15
Total	20	100

According to the findings,35% of the employers indicated that they had recruited through media adverts, 30% recruited through networking, 20%recruited through recruitment agencies and 15% indicated they recruited through referrals. This implies that most employers recruit through media adverts.

4.4.3 Influence of employment level on labour participation in the construction companies.

The study sought to determine the levels in which graduated are employed.

The employers were requested to indicate the levels at which they employed youth polytechnic graduates. The results were presented as in Table 4.21

Table 4. 21:Levels of employment

	Frequency	Percent
Skilled	2	10
Semi Skilled	3	15
Labourers	6	30
Assistant Trainees	9	45
Total	**20**	**100**

According to the findings, 45% indicated that they employed assistant trainees, 30% indicated that they employed laborers, 15% indicated that they employed semi-skilled.Further, 10% indicated that they employed skilled youth polytechnic graduates. This shows that most employers employ assistant trainees.

4.4.4 The study sought to determine areas of specialization for employment

The employers were asked to indicate the areas of specialization that they employed youth polytechnic graduates. The results were as presented in Table 4.22.

Table 4.22: Employment areas of specialization

	Frequency	Percent
Building and Construction	5	25
Carpentry and joinery	4	20
Electrical installation	5	25
Plumbing	3	15
Welding	2	10
Fabrication	1	5
Total	20	100

From the findings, 25% of the employers indicated that they employed in building and construction and also 25% indicated they employed electrical installation. Also, 20% showed that they employed in carpentry and joinery while 15% employed in plumbing. In addition, 10% employed in welding and 5% in fabrication respectively. This shows that most employers employ in building and construction and also in electrical installation.

4.4.5 The study sought to determine whether employees from different fields would be employed.

The employers were requested to indicate on whether they would employ graduates trained in a different field other than the primary business of their company/institution. The findings were presented as in Table 4.23.

Table 4. 23: Employment from different training fields

	Frequency	Percent
Yes	4	20
No	16	80
Total	**20**	**100**

From the findings, 80% indicated that they would employ graduates trained in a different field other than the primary business of their company/institution while 20% disagreed. This implies that most employers would employ graduates trained in a different field other than the primary business of their company/institution.

The study sought to determine the frequency of recruitment from different training fields

The employers were asked to indicate the level of employment that they would often employ graduates. The results were as presented in in Table 4.24

Table 4.24: Frequency of recruitment from different training fields

	Frequency	Percent
Laborers	3	75.0
Assistant Trainees	1	25.0
Total	**4**	**100.0**

According to the findings,75% of the employers who indicated that would employ graduates trained in a different field other than the primary business of their company/institution revealed that they will employ laborers and 25% indicated that they will employ assistant trainees. This implies that most employers would employ laborers from graduates trained in a different field other than the primary business of their company/institution.

The study sought to rate the competence level of vocational training graduates

The employers were requested to indicate on how they would rate the level of competence of vocational training graduates in performing their assigned responsibilities. The results were as shown in Table 4.25.

Table 4. 25:Rating of the competence of vocational training graduates

	Frequency	Percent
Highly Competent	11	55
Competent	8	40
Incompetent	1	5
Total	**20**	**100**

From the findings,55% of the respondents indicated that they would rate the level of competence of vocational training graduates in performing their assigned responsibilities as highly competent,40% indicated they would rate it as competent.Further,5% indicated they would rate it as incompetent. This shows that most employers would rate the level of competence of vocational training graduates in performing their assigned responsibilities as highly competent.

The study sought to determine the employer's satisfaction with employees from Youth Polytechnics.

Employers were asked to indicate the levels of satisfaction with employees from youth Polytechnics. The findings were presented as in Table 4.26.

Table 4. 26:Employer satisfaction with employee from Youth Polytechnics

	Frequency	**Percent**
Highly Satisfied	13	65
Satisfied	7	35
Total	**20**	**100**

According to the findings, 65% of the employers indicated the levels of their satisfaction with employees from Youth Polytechnic to be highly satisfied while 35% indicated the level to be satisfied. This indicates that the level of employer satisfaction with employees from Youth Polytechnic is highly satisfied.

4.4.6 The study sought to determine the trainability of polytechnic graduates

The employers were asked to indicate on whether polytechnic graduates are trainable. The results were as presented in Table 4.27.

Table 4. 27: Trainability of youth graduates

	Frequency	Percent
Strongly Agree	15	75
Agree	5	25
Total	**20**	**100**

From the findings, 75% of the employers strongly agreed that polytechnic graduates are trainable while 25% agreed. This implies that most employers strongly agree that polytechnic graduates are trainable.

4.4.7 The study sought to determine the adaptability of the graduates to work

The employers were asked to indicate on whether youth polytechnic graduates are adaptable to their work place. The results were as presented in Table 4.28.

Table 4. 28:Adaptability of youth polytechnic graduates to their work place

	Frequency	**Percent**
Strongly Agree	16	80
Agree	4	20
Total	**20**	**100**

From the findings, 80% of the respondents indicated that they strongly agree that youth polytechnic graduates are adaptable to their work place while 20% agreed. This implies that most employers strongly agree that polytechnic graduates are adaptable to their work place.

4.5 Regression analysis

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 22) to code, enter and compute the measurements of the multiple regressions.

Table 4.29: Model summary

Model	**R**	**R Square[b]**	**Adjusted r Square**	**Std. Error of the Estimate**
1	0.798a	0.6368	0.6151	0.001

Regression analysis is a statistical process for estimating the relationships among variables. R is the correlation between all the independent variables and dependent variable. In this study r was 0.798, which shows that all the independent variables (equipment , training facilities , capacity of training instructors and training curriculum) have a positive influence on the

labour participation in the construction companies . Regression analysis results are shown in table 4.9, reveal r^2 of 0.6368 and significant variables all at 5% level of significance. This implies that 63.68% change in the dependent variable (labour participation in the construction companies) can be attributed to changes in the independent variables namely, equipment , training facilities , capacity of training instructors and training curriculum.

Table 4.30: Analysis Of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.828	4	4.707	7.275	.000[a]
	Residual	86.051	133	0.647		
	Total	104.879	137			

The study established that there existed a significant goodness of fit of the model $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$ indicted by the higher value of F-statistics ($F_{Cal} = 7.275 > F_{Cri} = 2.439$ at confidence level 95 % and sig is 0.000<0.05). This therefore implies that there is a goodness of fit of the model fitted for this study: $Y = 0574+0.598X_1 +0.665X_2 +0.291X_3 +0.542X_4+ \varepsilon$

Table 4.31: Coefficient analysis

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.574	0.192		2.522	0.015
	Equipment	0.598	0.205	0.412	3.304	0.002
	Training Facilities	0.665	0.011	0.563	3.882	0.001
	Capacity of training instructors	0.291	0.136	0.134	4.124	0.002
	Training curriculum	0.542	0.824	0.353	2.124	0.008

From regression results is shown in Table 4.12, and can be expressed in the modes as follows:

$Y = 0574+0.598X_1 +0.665X_2 +0.291X_3 +0.542X_4+ \varepsilon$

The constant value 0.574 represents the change in dependent variable not attributed to by study independent variables. Regression results further revealed that change in equipment

(X_1) has significance influence in labour participation in the construction companies as indicated by β_1=0.598, p=0.02<0.05, t=3.304 implying that a unit change in equipment will leads to 0.598 change in labour participation in the construction companies; change in training facilities (X_2) has a significance influence on labour participation in the construction companies as indicated by β_2= 0.665, p=0.001<0.05, t=3.882 implying that a unit change in training fcailties will leads to 0.598 change in labour participation in the construction companies; capacity of training instructors (X_3) has low significance influence on labour participation in the construction companies as indicated by β_3=0.291, p = 0.002<0.05, t=4.124 implying that a unit change in capacity of training instructors will leads to 0.291 change in labour participation in the construction companies; and finally training curriculum (X_4) has significance influence on performance of commercial banks as indicated by β_4=.0.542, p=0.008>0.05, t= 2.124, implying that a unit change in training curriculum will leads to 0.542 change in labour participation in the construction companies. In general the regression beta coefficients reveal that the most significance variable for the study is training facilities , capacity of training instructors, equipment and lastly training curriculum.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following summary of findings, conclusion and recommendations were made. The responses were based on the objectives of the study. The study sought to establish influence of vocational training on labour participation in the construction companies in Nairobi county, Kenya**.** Further the study sought to establish; how equipment, training, instructor capacity and to examine how training curriculum influence labour participation in the construction companies in Nairobi County, Kenya.

5.2 Summary of Findings on Influence of Vocational Training on Labour Participation in the Construction Companies

5.2.1 Influence of equipment on labour participation in the Construction Companies

The first objective of the study was to establish how equipment influence labour participation in the construction companies in Nairobi County, Kenya. The study revealed that most vocational training institutions do not have modern training equipment and the training equipment in the vocational institutions are neither adequate nor inadequate. The study agrees with those of Jamieson *et al.* (2005), they found out that curriculum and facility design are related, and their findings demonstrate that the physical learning environment has an influence on students' social and scholastic behavior.

5.2.2 Influence of training facilities on labour participation in the Construction Companies

The study also sought to establish how training facilities influence labour participation in the construction companies in Nairobi County, Kenya. The study found out that training facilities and equipment's in vocational training institutions are inadequate, there were sufficient modern equipment in the institution, there are enough instructional material in the institution, learning materials and tools were sufficient for an effective learning environment, there was consultations on the needs and expectations of students and training facilities were well

coordinated to allow for effective learning. The study findings concurs with those of Grollmann (2008), he asserts that there are two major obstacles to the professionalization of teachers in vocational education: the low status of vocational education and the problem of increasing the status of the teaching profession in general.

5.2.3 Influence of instructor capacity on labour participation in the Construction Companies

The third objective aimed to determine how instructor capacity influence labour participation in the construction companies in Nairobi County. The study established that, there were effective communication between the instructor and trainee during and after classes, training instructor was readily available for consultation during and after classes, the instructor was conversant with the course and the broader work environment, training instructors had the required education qualification for the course, training plans were well presented during learning by instructors, training instructors are experienced in training the course and instructors exhibited professionalism in their duties and responsibilities. The study findings concurs with those of Grollmann (2008), he asserts that there are two major obstacles to the professionalization of teachers in vocational education: the low status of vocational education and the problem of increasing the status of the teaching profession in general.

5.2.4 Influence of training curriculum on labour participation in the Construction Companies

The last objective examined how training curriculum influenced labour participation in the construction companies in Nairobi County, Kenya. The study revealed that, the training curriculum was relevant to what they do now, the curriculum offered enough practice skills which they use in their current job, training curriculum offered skills that are applied in daily work and the curriculum delivery was a replica of what they do in their current job. The study agrees with those of Opiyo and Agwanda (2008) in the Kenyan Youth Fact Book asserts that increased youth migration has far-reaching impacts. It increases the strain for jobs without necessarily improving the job conditions of those who are left in rural areas; impacts provision of public goods, education, utilities, housing, and infrastructure.

5.3 Discussion on Influence of Vocational Training on Labour Participation in the Construction Companies

The findings reveal that vocational training institutions have no the modern training equipment and even the available equipments are not enough for training a large group of students. The training facilities were also not enough the vailable facilities were used by a group of students at a time. The vocational training instutions had qualified instructors who were able to perform their work well and also interact with students during the learning sessions. The training curriculum established by the ministry of education was relevant and therefore enhanced students skills which are needed in the job market.

5.4 Conclusions on Influence of Vocational Training on Labour Participation in the Construction Companies

The findings of the study established that, equipment have influence on labour participation in the construction companies in Nairobi County, Kenya. Thus, the study concludes that equipments had a positive influence on labour participation in the construction companies in Nairobi County, Kenya.

On training facilities influence on labour participation in the construction companies in Nairobi County, Kenya, the study concluded that training facilities have a positive influence on labour participation in the construction companies.

On instructor capacity, the study indicated that it had influence on labour participation in the construction companies in Nairobi County, Kenya. Further the study concluded that instructor capacity had a positive influence on labour participation in the construction companies in Nairobi County, Kenya.

Finally on the training curriculum; the study indicated that training curriculum had a negative influence on labour participation in the construction companies in Nairobi County, Kenya.

5.5 Recommendations on Influence of Vocational Training on Labour Participation in the Construction Companies

The study recommends that vocational training institutions should acquire modern training equipment and the equipment should also be adequate for the students in the institution, this will positively influence vocational training and increase labour participation in the construction companies.

The study also recommends that the institutions should purchase enough training facilities for their students this will have a great impact to vocational training since the trainees will be properly trained. Also because of the training facilities there will be an increase in labour participation in the construction companies.

Another recommendation is that the institutions should employ experienced instructors, this will enhance their work delivery to the trainees and will result to a better understanding of trainees since, they are taught by qualified instructors and hence it will increase increase labour participation in the construction companies.

Finally the institutions should have a curriculum which can be replicated in the current jobs by the graduates, this will increase influence labour participation in the construction companies.

5.6 Suggestion for further studies

This study aimed at establishing influence of vocational training on labour participation in the construction companies in Nairobi county, Kenya**.** Further studies should be carried out to find out the influence of vocational training to other companies such as manufacturing and service industries.

REFERENCES

Adeyemo, S.A. (2010) "A survey of factors determining the employability of science and technology graduates of polytechnics and universities in the Nigerian Labour Market" in *Journal of Science and Technology Education Research* Vol. 1 (5) pp 99-106, October.

African Development Bank (2003). Education III Project – Strengthening and Expanding Access to Appropriate Secondary Education and Skills Acquisition. Social Development Department North, East and South Region.

African Economic Outlook (2008). African Development Bank and the OECD Development Centre

Ambrosio, T. (1995). Teachers and Trainers in Vocational Training Volume 2: Italy, Ireland and Portugal Published by CEDEFOP - European Centre for the Development of Vocational Training.

Arnold, R. (2005). Empathic intelligence: Teaching, learning, relating. Sydney, Australia: UNSW Press

Asplund, R. and Barth, E. (2005). Education and Wage Inequality in Europe: A Literature Review, The Research Institute of the Finnish Economy, Helsinki.

Atchoarena, D. and Philipps, M. and Holmes, K. (2007) Strengthening Technical and Institutional Aspects of Technical & Vocational Training (TVET) in the Netherlands Partners Countries, Dutch Ministry of Foreign Affairs.

Atchoerena, D. and 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.

Bazely, P. (2002). Issues in Mixing Qualitative and Quantitative Approaches to Research Published in: R. Buber, J. Gadner, & L. Richards (eds.) (2004) Applying qualitative methods to marketing management research. UK: Palgrave Macmillan, pp141-156.

Best, J. and Kahn, J. (1986). Research in Education. 5th ed. London: Prentice Hall International.

Boeteng, K. and Ofori-Sarpong, E. (2002) *An analytical study of the labour market for tertiary* graduate *in Ghana*. World Bank/National Council for Tertiary Education, National Heinemann Educational Nigeria, Plc.

Buck, L. L. and Barrick, R. K. (1987). They're Trained, but are They Employable?. Vocational Education Journal 67, pp. 24-47.

Budría, S. and Pereira, P. T. (2007). The Wage Effects of Training in Portugal: Differences across skill groups, genders, sectors, and training types, Applied Economics 39, 787-807.

Bybee, R. & Horsely, S. (2000). Standard as Catalyst for Change in Technology Education. The Technology Teacher, 59 (5), 14-17.

Career and Technical Education (CTE)(2009): Washington – office of Superintended of Public Instruction http://www.k12wa.us/CareerTechEd

Comyn, P. and Barnaart, A. (2010). TVET reform in Chongqing: big steps on a long march. Research in Post-Compulsory Education. 15:1,49-65.

Dasmani, A. (2011). Challenges facing Technical Institute graduates in practical skill acquisition in the Upper East Region of Ghana. Asia- Pacific Journal 12(2), 67-77.

Enyekit, E. O., Ubulom, J. W. and Onuekwa, F. A (2011) Achieving human capital development in Nigeria through vocational education for nation building. Academic Research International 1 (3). ISSN: 2223-9553

Fluitman, F., Gill, S., Dar, A. (2000) Vocational Education and Training Reform – Matching Skills to Markets and Budgets.

Fourcade, B., Paul, J-J. and Vernières, M. (1994). L'insertion professionnelle dans les pays en développement . *Revue Tiers Monde*, Vol. XXXV, No. 140. Paris: PUF.

Golbeck, Amanda L. Evaluating statistical validity of research reports: a guide for managers, planners, and researchers. Gen. Tech. Rep. PSW-87. Berkeley, CA: Pacific Southwest Forest and Range Experiment Station, Forest Service, U.S. Department of Agriculture.

Goleman, D. (2001) Emotional intelligence: Issues in paradigm building. In C. Cherniss & D. Goleman (Eds.), The emotionally intelligent workplace. San Francisco: Jossey-Bass.

Graaff,J., & Kolmos,P. (2003). "Characteristics of problem-based learning",*International Journal of Engineering Education*, 19, (5).

Grasher, A. F. (1996) Teaching with styles. Cincinnati, OH: Alliance Publication.

Grierson, J. (2002). Practices and trends in formal sector enterprise-based training in Africa: Case Studies from Kenya and Zambia. International Training Centre of the International Labour Organisation.

Grollmann, P. (2008). The Quality of Vocational Teachers: teacher education, institutional roles and professional reality European Educational Research Journal Volume 7 Number 4 2008 www.wwwords.eu/EERJ

Hollander A, & Mar N. Y (2009). Towards Achieving for All. In R. Maclean, & D. Wilson, (Eds.). International Handbook of Education for The Changing World of Work: Springer + Business Media BV, pp. 1863 – 1877.

in American Sociological Review. 60 (2) P. 222-246.

Izeke, E. M & Nzekwe, Ifeoma, F. (2013) Students' Industrial Work Experience Scheme (SIWES) And Graduate Employability in Nigeria: A Study of the South East Geo-Political Zone *Scottish* Journal *of Arts, Social Sciences and Scientific Studies http/scottishjournal.co.uk.*

Kazilan, F., Hamzah, R. and Bakar, R. A. (2009). Employability skills Among the Students of Technical and Vocational Training Centers in Malaysia. European Journal of Social Sciences – Volume 9, Number 1 (2009).

Kehler, L., Sanabria, F. L. and Teeple, P. (2009). Market-Driven Youth Programs and the Bottom Line: Using Income-Generating Activities to Make Programs 100% Market Driven. The SEEP Network.

Kent, D.W. and Mushi, P. (20066), The Education and Training of Artisans for the Informal Limited) www.jidaw.com (Accessed July,1, 2016).

Kerlinger, F. N. (1973). Foundation of Behavioural Research. New York: Holt Rinehart and Winston.

Konayuma, G. (2008) Policy Frameworks: Major Policy Issues in TVET in Africa, IVETA Conference.

Lasonen, J. and Burge, P. L. (1991). Women in Work Place: Vocational Education and Segregated Division of Labour, Los Angeles: Michigan State University Extension.

Last, J. (Ed.). (2001). International Epidemiological Association. A dictionary of epidemiology (4th ed.). New York: Oxford University Press.

Lynch, R. L. (1998). Occupational Experience as the Basis for Alternative Teacher Certification in Vocational Education, in A. Gamoran & H. Himmelfarb (Eds) The Quality of Vocational Education: background papers from the 1994 National Assessment of Vocational Education, 43-65. Washington, DC: US Department of Education.

McGrath, S. (2009), Education and Training for the Informal Sector: Reflections on a Nigeria. www.pagina-aede.org/malaga 2011.

Ministry of National Planning & Development (2005). Millennium Development Goals in Kenya Needs & Costs Courtesy of the UNDP, Kenya, and the Government of Finland.

MoES&T (2003). National Action Plan on Education for All 2003-2015. Government Press, Nairobi

MoES&T (2004). Sessional Paper No. 1 of 2004 on a Policy Framework for Education, Training and Research - Meeting the Challenges of Education, Training and Research in Kenya in the 21st Century.

MoES&T (2005). Kenya Education Sector Support Programme 2005 – 2010: Delivering Quality Equitable Education and Training to All Kenyans

Mohd Yahya, N. (2003). Isu dan Cabaran dalam Penyediaan Tenaga Kerja dalam Era Perubahan Teknologi dan Globalisasi". Working paper presented at National Seminar on Vocational Education and Training 2003, Kolej Tun Hussein Onn

Morgan, K. R. (2000). Blended Learning: A Strategic Action Plan for a New Campus, Seminole, FL 33776, prepared for Dr. Tom Kabala, University of Central Florida, http://www.spjc.cc.fl.us/eagle/presentations/BlendedLearning.htm

Mugambi, Kaburu. "Lack of jobs among the youth a recipe for wars, warns World Bank" Daily Nation April 11, 2011

Njonjo K. S. **(**2010) Youth Fact Book Infinite Possibility or Definite Disaster? Institute of Economic Affairs.

Nuffic (2010) Strategy on Technical and Vocational Education and Training (TVET)

Nuru, A. (2007). The Relevance of National Vocational Qualifications (NVQs) in TVE in Nigeria. *Unpublished Conference Paper*

Nyerere, J. (2009). Technical and Vocational Education and Training (TVET) Sector Mapping in Kenya. Dutch Schokland TVET Programme Edukans Foundation.

Office of the Prime Minister, Ministry of State for Planning, National Development and Vision 2030 (2008) First Medium Term Plan (2008 - 2012)

Office of the Vice President and Ministry of State for Youth Affairs Strategic Plan 2007 – 2012. Governement Printers

Okaka, P. O. (1997). Technical and vocational education and training policy in Kenya. A position paper presented at a UNESCO/UNEVOC Sub-Regional Seminar for Eastern and Southern African Countries. Nairobi, Kenya.

Okorie, J.U. (2000). *Developing Nigeria Workforce.* Calabar: Page Environs Publishers.

Olaitan, S. O., Ali, A., Eyoh, E. O. and Sowande, K. G. (2000). Research Skills in Education and Social Sciences. Owerri: Cape Publishers International Limited.

Olaniyan, D. A. and Okemakinde, T. (2008). Human Capital Theory: Implications for Educational Development. European Journal of Scientific Research Vol.24 No.2 (2008). ISSN 1450-216X. pp.157-162.

Onsomu, E., Wambugu, A. and Wamalwa, F. (2009). Improving Technical and Vocational Training in Kenya: Lessons from Selected Countries. Social Sector Division Kenya Institute for Public Policy Research and Analysis. KIPPRA Discussion Paper No. 105

Opiyo, C. O. and Agwanda, A. T. (Unpublished). Population Growth and Structure and its Implications on Socio- Economic Development in Kenya. In Kitonga A. & Njonjo, K.S. (Eds.) Youth Research Compendium. Youth: Infinite Possibility or Definite Disaster? Nairobi: Institute of Economic Affairs.

Osuala, E.C. (1999). *A Handbook on Vocational-Technical Education for Nigeria*. Nigeria: Pacific Pulisher Wrouuba Close.

Owigar, J. W. B. (2003). Skills Training Strategies to Combat Worst Forms of Child labour in the Urban Informal Sector Kenya country study International Labour Organization (ILO) International Programme for Elimination of Child labour (IPEC).

Péano, S. and Oulai, D. (1999). Compte économique général de l'éducation. Paris: UNESCO/ International Institute for Educational Planning.

Psacharopoulos, G. and Woodhall, M. (1997). Education for Development: An Analysis of Investment Choice. New York Oxford University Press.

Republic of Kenya & Kenya National Bureau of Statistics (KNBS) Economic Survey 2009 Kenya National Bureau of Statistics (KNBS) Facts and Figures 2009

Rivkin, S. G., Hanushek, E. A. and Kain, J. F. (2005). Teachers, Schools, and Academic Achievement, Econometrica, 73(2), 417-458. http://dx.doi.org/10.1111/j.1468-0262.2005.00584.x

Sakamota, A. and Powers, P.A. (1995). Education and the dual labour market for Japanaese men

Salovey, P. and Mayer, J. D. (1990). Emotional Intelligence. Imagination, Cognition, and Personality, 9, 185-211.

Schultz, T. W. (1963). The Economic Value of Education. New York and London: Columbia University.

Schultz, T. W. (1971). Investment in Human Capital. New York. The Free Press.

Seyfried, E. (1998) Evaluation of Quality Aspects in Vocational Training Programmes Synthesis Report on behalf of CEDEFOP – European Centre for the Development of Vocational Training

Simiyu, J. (2007) 'Introducing eLearning as a Strategy to Increase Enrolment in TVET', Paper presented at the 1st African UNESCO-UNEVOC Summit on Access and Inclusion for TVET in Africa through New ICT-based Solutions, 28–30 May, Safari Park Hotel, Nairobi, Kenya.

Tsang, M. C. (1988), Cost analysis and educational policymaking: a review of cost studies in education in developing countries, Review of Educational Research, Vol. 58, pp. 181-230

Tsang, M. C. (1997). International Journal of Manpower, Vol. 18 No. 1/2, 1997, pp. 63-89. MCB University Press.

Twigg, C. (1999). Improving Learning & Reducing Costs: Redesigning Large-Enrollment Courses, The Pew Learning and Technology Program, http://www.center.rpi.edu/PewSym/mono1.html.

Udofia, A. E, Ekpo, A. B., Nsa, E. O., & Akpan, E. O. (2012). Instructional Variables and Students'.

UNESCO and ILO (2002). Technical and Vocational Education and Training for the Twenty-first Century: UNESCO and ILO Recommendations, UNESCO-UNEVOC Publications http://unesdoc.unesco.org/images/0012/001260/126050e.pdf

UNESCO-UNEVOC (2006). Participation in Formal Technical and Vocational Education and Training Programmes Worldwide: An Initial Statistical Study. ISBN-10: 3-00-020134-3

Unwin, L. (2003). Being Responsive: Colleges, communities and 'stakeholders' in , I., Macgrath, S., Badroodien, A. and Maja B. (editors). HSRC Publishers, Capetown.

Whitaker J. (2002). Impact of Clicks on Bricks: VET facilities planning in an information age. Final Report. JLWhitaker Associates

Winkelmann, R. (2002), Apprenticeship training: a model for the future? Zeitschrift für angewandte Konjunkturpolitik, Vol. 48, No. 3-4, pp. 229-389.

World Bank (2005). Integrating TVET into the Knowledge Economy: Reform and Challenges in the Middle East and North Africa. The World Bank. Washington D.C.

Yin, R. K. (1984) Case Study Research: Design and Methods, London: Sage Publications.

Zymelman, M. (1976). The economic evaluation of vocational training programmes. John Hopkins University Press, Baltimore, MD.

APPENDICES

Appendix I: Introductory Letter

Olang John Collins,
University Of Nairobi,
P.O Box 30191- 00100,
Nairobi.

Dear Sir/Madam,

Re: Research Project Data Collection Exercise

I am a post graduate student undertaking a Master of Arts degree in Project Planning and Management at the University of Nairobi. I am required to submit as part of my course work a research project report on "**The influence of vocational training on labour participation in the construction companies in Nairobi County, Kenya**". Your institution has been chosen to participate in the survey. You are requested to provide the requested information by kindly fill out the accompanying questionnaire. The information provided will be used for academic purposes only and will be treated with strict confidence. A copy of the same can be availed upon request.

Yours Sincerely
Collins Olang.

Master's Student
University of Nairobi

Appendix II: Questionnaire For Graduate

Section A: Socio - Demographic characteristics

1. What is your gender?

   Male [ ]

   Female [ ]

2. What age category do you belong to?

   15-20 [ ]

   20-25 [ ]

   5-30 [ ]

   30-35 [ ]

3. What is your marital status?

   Single [ ]

   Married [ ]

   Divorced [ ]

   Widowed [ ]

4. What is your employment status?

   Contract [ ]

   Casual [ ]

   Temprary [ ]

   Other ……

5. What training course did you undertake? …….

   Painting [ ]

   Concreting [ ]

   Block-laying [ ]

   Carpentry and Joinery [ ]

   Masonry [ ]

   Plumbing [ ]

Section B: Training Facilities

6. Are you accomodated by the institution?

   Yes [ ]

   No [ ]

7. To what degree do you think training facilities and equipment in your institution are adequate?

   Highly Adequate [ ]

   Adequate [ ]

   Neither Adequate nor Inadequate [ ]

   Inadequate [ ]

   Highly Inadequate [ ]

8. The following statements are related to the quality of training in your institution. Rate them as per the given scale.

   1 = Strongly Agree (SA)

   2 = Agree (A)

   3 = Neutral (N)

   4 = Disgree (D)

   5 = Strongly Disagree (SD)

Statement	**SA**	**A**	**N**	**D**	**SD**
Learning materials and tools were sufficient for an effective learning environment					
Training facilities were well co-ordinated to allow for effective learning					
There was consultations on the needs and expectations of students					
There were sufficient modern equipment in the institution					
There are enough instructional material in the institution					

Section C: Training Equipment

1. Does the institution have modern training equipment?

   Yes [ ]

   No [ ]

2. To what degree do you think training equipment in your institution are adequate?

   Highly Adequate [ ]

   Adequate [ ]

   Neither Adequate nor Inadequate [ ]

   Inadequate [ ]

   Highly Inadequate [ ]

Section D: Training Instructors Capacity

3. The following statements are related to the training instructors capacity in your institution. Rate them as per the given scale.

   1 = Strongly Agree (SA)

   2 = Agree (A)

   3 = Neutral (N)

   4 = Disgree (D)

   5 = Strongly Disagree (SD)

Statement	**SA**	**A**	**N**	**D**	**S D**
Training plans were well presented during learning by instructors					
Instructors exhibited professionalism in their duties and responsibilities					
Training instructor was readily available for consultation during and after classes					
The instructor was conversant with the course and the broader work environment					
There were effective communication between the instructor and trainee during and after classes					
Our training instructors had the required education qualification for the course					
Our training instructors experienced in training the course					

Section E : Vocational Training Curriculum

4. The following statements are related to the training curriculum in your institution. Rate them as per the given scale.

   1 = Strongly Agree (SA)

   2 = Agree (A)

   3 = Neutral (N)

   4 = Disgree (D)

   5 = Strongly Disagree (SD)

Statement	**SA**	**A**	**N**	**D**	**S D**
The training curriculum was relevant to what I do now					
Training curriculum offered skills that I apply in my daily work					
The curriculum delivery was a replica of what I do in my current job					
The curriculum offered enough practice skills which I use in my current job					

Section F : Labour participation

1. To what extent do you agree with the following statement? Rate them as per the given scale.

   1 = Strongly Agree (SA)

   2 = Agree (A)

   3 = Neutral (N)

   4 = Disgree (D)

   5 = Strongly Disagree (SD)

Statement	**SA**	**A**	**N**	**D**	**S D**
There is presently a shortage of workforce in the Kenya construction companies					
There is presently a shortage of quantity or number of Tradesmen available for work in the companies					
There is presently a shortage of competency or quality of					

Tradesmen available					
There is presently a shortage predominant or particular to masonry Trades					
There is presently a shortage predominant or particular to with wood trades					
There is presently a shortage predominant or particular with plumbing trades					

2. What qualification did you acquire at the end of your vocational training?

   Grade III [ ]

   Grade II [ ]

   Grade I [ ]

   Certificate [ ]

   Other (*specify*) ……..

3. To what extent do you think the training you received is related to the current labour market?

   Highly Related [ ]

   Related [ ]

   Neither Related nor Unrelated [ ]

   Unrelated [ ]

   Highly Unrelated [ ]

4. To what extent do you think you possess the skills required by the employers?

   Highly Skilled [ ]

   Skilled [ ]

   Neither Skilled nor Unskilled [ ]

   Unskilled [ ]

   Highly Unskilled [ ]

5. What type of other skills did you receive in your training?

   Communication skills [ ]

   Negotiation skills [ ]

   Life skills [ ]

Financial management skills [ ]

Entrepreneurship skills [ ]

6. What type of skills did you receive in your training?

……

7. Do you have any concerns regarding the vocational training you received?

……

……

8. Do you have any suggestions on improvement of vocational training you received?

……

……

Thank you for your co-operation

Appendix III: Questionnaire For Employers

1. Do you employ youth polytechnic graduates?

   Yes [ ]

   No [ ]

2. If yes, how many youth polytechnic graduates have you employed in the last 5 years?

   Less than 5 [ ]

   6 – 10 [ ]

   11 – 15 [ ]

   16 – 20 [ ]

   More than 20 [ ]

3. How do you recruit youth polytechnic graduates?

   Media Advertisements [ ]

   Networking [ ]

   Recruitment Agencies [ ]

   Headhunting [ ]

   Referrals [ ]

   Other (*specify*) ……

4. At what level do you employ youth polytechnic graduates?

   Skilled level [ ]

   Semi – skilled level [ ]

   Labourers [ ]

   Assistant Trainees [ ]

   Other (*specify*) …….

5. In what areas of specialisation do you employ youth polytechnic graduates?

   Building and Construction [ ]

   Capentry and joinery [ ]

   Electrical installation [ ]

   Plumbing [ ]

   Welding [ ]

   Fabrication [ ]

6. Would you employ graduates trained in a different field other than the primary business of your company/institution?

   Yes [ ]

   No [ ]

6 (b) If your answer is No, go to question 8

7. If your answer to question 6 is yes, what level of employment would you often employ such graduates?

   Skilled level [ ]

   Semi – skilled level [ ]

   Labourers [ ]

   Assistant Trainees [ ]

   Other (*specify*) ……..

8. What reason would you give for not employing graduates trained in a different skill other than the primary business?

   We need people with relevant skills only [ ]

   We don't want to waste time in training them in the required skills [ ]

   Other (*specify*) ……

9. How would you rate the level of competence of Vocational Training Graduates in performing their assigned responsibilities?

   Highly Competent [ ]

   Compitent [ ]

   Neither Competent nor Incompetent [ ]

   Incompetent [ ]

   Highly Incompetent [ ]

10. How satisfied are you with employees from Youth Polytechnics?.

    Highly Satisfied [ ]

    Satisfied [ ]

    Neither Satisfied nor Unsatisfied [ ]

    Unsatisfied [ ]

    Highly Unsatisfied [ ]

11. Do you agree that youth polytechnic graduates are trainable?

    5. Strongly agree [ ]
    4. Agree [ ]
    3. Unsure [ ]
    2. Disagree [ ]
    1. Strongly disagree [ ]

12. Do you feel youth polytechnic graduates are adaptable to their work place ?

    5. Strongly agree [ ]
    4. Agree [ ]
    3. Unsure [ ]
    2. Disagree [ ]
    1. Strongly disagree [ ]

13. How often do you have to send your Youth Polytechnic trained employees for further training to improve their skill level?

    ……

14. Do you have any suggestions of how Vocational Training can be improved?

    ……

    ……

    ……

Thank you for your co-operation

Appendix IV : Key Informants interview guide

1. What is your age?
2. What is your Sex? (*Male of Female*)
3. What is your educational qualification? (*all academic qualifications*)
4. What is your experience as a manager of Youth Polytechnic? (*number of years*)
5. What is the status of your institutions training facilities and equipment in relation to the field of study ?
6. What are the academic qualifications requirements for a instructors in your institutions?
7. How adequate is the number of teaching staff in your department?
8. Do your instructors have business training and experience?
9. What is the minimum job experience requirement for a instructor in your institution?
10. What are the terms of employment for trainers and instructors? (*part time or full time*)
11. Does your institution undertake market assessements inorder to aling the training curricular?
12. What are some of the challenges that you face in the management of your institution?
13. In your opinion how would challenges you face be addressed or mitigated?

Appendix V : Interview guide for TVET directors

1. What is your age?
2. What is your Sex? (*Male of Female*)
3. What is your educational qualification? (*all academic qualifications*)
4. What is your experience as a director in vocational training? (*number of years*)
5. What is the status of Youth Polytechnic training facilities and equipment in the County?
6. What are the academic qualifications requirements for instructors in the Youth Polytechnic?
7. How adequate is the number of teaching staff in Youth Polytechnic?
8. Do instructors in vocation training institutions have business training and experience?
9. What is the minimum job experience requirement for a instructor in Youth Polytechnic institutions ?
10. What are the terms of employment for trainers and instructors? (*part time or full time*)
11. Does the ministry of education undertake market assessements inorder to aling the training curricular?
12. If yes, when was the last time such an assessment was conducted? Or How often is the assessment conducted
13. What are some of the challenges that faces Youth Polytechnic institutions in relation to capacity of instructor, curriculum and training fcailities and equaipemnt ?
14. In your opinion how would challenges you face be addressed or mitigated?

Appendix VI: Observation schedule

	Adequate	Inadequete	None
Training equipment			
Training facilities			
Number of trainers in the institution			
Relevance of tarining curriculum			
Size of the clasrom			
Modern training equipment			