FACTORS INFLUENCING ACCESS TO TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING IN BUNGOMA EAST SUB-COUNTY, KENYA

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

UNIVERSITY OF NAIROBI
2015
DECLARATION

This research project is my original work and that no part has been presented for another dissertation in this University or elsewhere for examination purpose or otherwise.

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E55/75298/2012

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

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DEDICATION

To my spouse Hannah
For her encouragement and support

To my children
Tabby, Sammy and Steve
For their understanding and prayers

And

To my parents
Ben (God rest his soul in peace) and Joina
For their believe in investment in quality education

And

To all my siblings
For their encouragement
ACKNOWLEDGEMENT

I thank God Almighty for his grace, protection and mercies upon me throughout this course and in particular in this study. I also express my sincere appreciation to my supervisors Dr. Andrew Riechi and Mr. Ferdinand Mbeche for their time, patience, suggestions, advice and for reading my documents from the initial stages to the final copy despite their many academic and professional commitments. They never tired to encourage me in the development of this study. I am equally grateful to Prof. Winston Akala and Dr. Ibrahim Khatete who taught me research methods thus, giving me a lot of knowledge in doing this work plus the entire examination board for their professional input. Special thanks go to all the teaching and non-teaching staff in the school of education for their support in one way or the other.

I am also indebted to my friends Messrs Nyongesa Charles, Wachilonga Lewis and Lubakaya Chris for their constant encouragement and inputs during the development of this Study. They restored my hope in completing this work. Thanks to my colleagues in the department whom we journeyed together in postgraduate studies, with special mention of Kato, Alice and Meshack whose encouraging words through cell phone calls were remarkable.

I cannot forget to express my sincere gratitude and appreciation to my Pastor George Barasa who personally encouraged me and continued to pray for me.

Finally, I would like to give special gratitude to Dr. O. Juma and his wife Esther Juma who tirelessly accommodated and took care of me during my consultations.
in Nairobi. Much thanks to my family who kept encouraging me when the journey seemed to be rough and discouraging.

I may not be able to mention all of you by name but I offer my regards and blessings to all those who supported me in any respect to make this work a success. For any inadequacies that may remain in this work, the responsibility is entirely my own.

God bless you all.
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<tbody>
<tr>
<td>DEO</td>
<td>District Education Officer</td>
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<tr>
<td>EFA</td>
<td>Education for All</td>
</tr>
<tr>
<td>GOK</td>
<td>Government of Kenya</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MHES&amp;T</td>
<td>Ministry of Higher Education Science and Technology</td>
</tr>
<tr>
<td>MoEST</td>
<td>Ministry of Education Science and Technology</td>
</tr>
<tr>
<td>ROK</td>
<td>Republic of Kenya</td>
</tr>
<tr>
<td>TVET</td>
<td>Technical Vocation Education and Training</td>
</tr>
<tr>
<td>TVTI</td>
<td>Technical Vocational Training Institutes</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific Cultural</td>
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<tr>
<td>UNEVOC</td>
<td>International Centre for Technical and Vocational</td>
</tr>
<tr>
<td></td>
<td>Education and Training</td>
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<tr>
<td>VET</td>
<td>Vocational Education and Training</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
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<tr>
<td>WEF</td>
<td>World Education Forum</td>
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<tr>
<td>YP</td>
<td>Youth Polytechnic</td>
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ABSTRACT

The study investigated the factors influencing access to Technical and Vocational Education and Training in Bungoma East sub-county. The study sought to establish the extent to which career opportunities, parental level of income, adequacy of physical facilities and human resources influenced access to the five registered TVET institutions in Bungoma East sub-county. The study was conducted through descriptive survey research design. Data was collected using questionnaires from 120 finalist youth trainees, five youth polytechnic managers and one sub-county youth officer. The youths were selected from a target population of 340 in all the polytechnics under study through the use of cluster sampling technique. Data was analyzed using frequencies presented in tables, percentages, pie-charts and histograms. Qualitative data was incorporated in research findings on the basis of reviewed literature and field experiences. This was shown up subjectively in comments of the researcher. The instruments were piloted in one youth polytechnic and a reliability coefficient of 0.746 as attained and hence accepted as reliable.

The major findings of the study were that choice of career opportunities in Youth Polytechnics was majorly influenced by the desire to get employment even though poor infrastructure, inadequate and lack of qualified teachers compromised quality training offered to trainees. Moreover, it was found out that youths lacked information about career choice and advancement besides their long held belief that Youth Polytechnic courses are for the failures in national examinations. The study also found out that 60.3% of the respondents parents were peasant farmers with no meaningful income in addition to having many children due to polygamous set up. In relation to physical facilities, the study found out that Youth Polytechnics had inadequate physical facilities and finally, it was found out that the Youth Polytechnics lacked enough trained and qualified teachers.

The study concluded that access to Youth Polytechnics is influenced by the trainees desire to get jobs, poor social-economic background, inadequate physical facilities that impacts negatively on quality training and finally inadequate and low quality training experience among teachers which affects quality graduates.

The study recommends for improvement of quality education and training by providing bursary funds to needy students, improvement of infrastructure and provision of adequate and qualified teachers. The study further recommends for study to establish the relevance of VET curriculum in production of competent graduates in VET. Additionally, a similar study with a much wider focus be carried out in the larger Bungoma county and also an independent study focusing on youth perception towards youth polytechnics.
CHAPTER ONE
INTRODUCTION

1.1 Background to the study

Education and training is a key contributor to human capital development and a basic human right. This is the reason for it remaining the subject of various significant world conventions and conferences such as Universal Declaration of Human Rights in 1948 (UN, 2000), the World Education Forum (WEF) and Education for All (EFA) agenda (UNESCO, 2004), to which Kenya is a signatory. The Millennium Development Goals (MDG, 2000) singled out education as key to development. The overall expectation was that globally, all people should have access to basic education by the year 2015 as a basis for further education and training to other levels like Technical and Vocational Education and Training (TVET) (Lumuli & Mayama, 2012).

Evidence exists suggesting that there is a close relationship between TVET, social employment, socio-economic growth and development (Ministry of Higher Education Science and Technology (MHES &T, 2008). This is because of its orientation towards the world of work and its emphasis on acquisition of employable skills (Afeti, 2006). Moreover, Afeti noted that TVET is well placed to train skilled and entrepreneurial workforce that nations need to create wealth and emerge out of poverty.
The skills and knowledge people acquire are the engines of economic growth and social development of any nation (Goel, 2010). This has enhanced the need to establish Technical and Vocational Training Institutions (TVTIs) responsible for the provision of these skills. Moreover, it underlines the basis for the use of TVET by several developed countries as an instrument of development according to Nyerere who noted that countries like Japan, Sweden and Italy gave more recognition to TVET through adequate funding. In Europe, at least 50% of the students in upper secondary education pursued some form of technical cum vocational education while in China, India and South East Asia, the figure was 40% whereas in Africa it was less than 20% (Nyerere, 2009). Research done by UNESCO noted that while enrolments in TVET was quite high in North Africa (averaging 24% of total sector enrolment between 2001 and 2005), the sector generally occupied a smaller position in school system in sub-Saharan Africa (5% between 2001 and 2005 with a falling trend) (UNESCO, 2006).

Various studies that postulates factors influencing access to Youth Polytechnics as forms of Technical and Vocational Education and Training, highlight some of these factors as Career Opportunities, Parental level of Income, physical facilities and Human resource (Mankoe, 2007; Jones & Larke, 2001; Myburgh, 2005). Research done by Mursoi on assessment of factors that influence secondary school student perception towards TVET in Eldoret West district noted that student enrolment in TVET institutions was shaped largely by people’s views for
example parents, teachers/counselors, peers and academic achievements (Mursoi, 2013). Edwards and Quinter observed that Factors Influencing Students Career Choices among Secondary School students in Kisumu Municipality includes availability of employment and opportunities for advancement (Edwards & Quinter, 2011).

UNESCO’s report on Education for All noted that two thirds of those enrolled in educational institutions in Philistine, Bangladesh and Sub-Saharan Africa withdrew before the end of education cycle due to low income (UNESCO, 2007). This is because low family income limits parent’s ability to pay fees plus meeting other indirect costs of education. Generally, it’s agreed that the schools physical facilities like classrooms, libraries, desks, laboratories, books and playing fields have a direct impact on student’s performance in schools (Ayoo, 2003). A study done in Nigeria on quality educational output revealed that availability of physical facilities like text books, laboratories and other equipment's are vital for effective teaching and learning (Adeyemi, 2008). He noted that lack of such facilities compromises quality teaching which affects enrolment rates in educational institutions.

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

In Kenya, Youth polytechnics (YPs) increased from 585 in 2011 to 647 in 2012 (Economic Survey, 2013) which was low in relation to increased demand for education in the entire country. Youth Polytechnics (formerly, village polytechnics) are responsible for training in artisan courses, popularly known as Government Trade Tests, for primary and secondary school leavers or drop outs. Technical training institutions and institutes of technology mainly train graduates of secondary school in craft and diploma courses. National polytechnics normally offer diploma courses which are prerequisite for most mature entry university admission criteria.

The need to reform TVET provision has been undergoing policy overhaul to increase access, make it more relevant and appropriate to the sectors development needs and realign it with global socio-economic direction (Nyerere, 2009). To this
end, the Government of Kenya (GoK) has formulated policies on TVET backed by legal strategies that revolve around, among others; equity in access, promotion of partnerships among VET stakeholders and linkages to promote relevant skill development to meet market needs.

According to the National Policy for Vocational Training Centers (MoEST, 2013) it was noted that vocational education and training is an investment with significant social rate of returns including enhanced productivity and competitiveness in a market economy. The Sessional Paper No.1 of 2005, a policy Framework for Education, Training and Research strengthened the National Skills Training Strategy and the revision of the legal framework for TVET (TVET Bill) whose aim was to strengthen the mechanisms for the implementation of the necessary TVET reforms (ROK, 2012).

Vision 2030 is an important country development blue-print that among other things places great emphasis on science, technology and innovation in general and TVET in particular as the vehicle for socio-economic and technological transformation. Therefore in her Vision 2030, Kenya earmarked TVET institutions to play a key role in human resource development through the social, economic and political pillars identified to drive her envisaged development agenda. The constitution of Kenya 2010 fourth schedule part (2)-9 transfers Youth Polytechnics to county governments to enable them be relevant in addressing the
communities’ socio-economic needs while the TVET Bill 2012 contains revision of legal framework in the TVET sector and provides for the establishment of a TVET Authority (TVETA) to oversee the TVET system. Moreover, the Kenya Qualification Framework Bill (2012) provides for the establishment of Kenya Qualifications Authority and its functions. The TVET Act 2013 provides for the establishment of a technical and vocational education and training system to deal with governance and management of institutions offering technical and vocational education and training (MoEST, 2014).

At the county level, Bungoma County acknowledges the critical role that YPs play in reducing youth unemployment by equipping them with employable skills. Access to these institutions remains an issue of concern given that the county has so far only 28 registered YPs with a total enrollment of 3780 trainees according to the county’s Education and ICT Sector Plan 2013-2017. In efforts to address access to Technical and Vocational Education and Training, the county’s Education Ministry has developed a Youth Polytechnic Policy document that will guide the operations of all Youth Polytechnics in reference to registration, governance, financial management, monitoring, evaluation and capacity building. Moreover, the ministry has initiated a number of programs and flagship projects in line with Vision 2030 in all the county’s wards for example setting aside funds to build more Youth Polytechnics in all Wards, expanding the facilities of the existing youth polytechnics and ensuring they are registered by the national
government, providing more grants to students and operationalizing affirmative action for the disadvantaged and marginalized groups within the county (Bungoma County Education and ICT Sector Plan 2013-2017). It is acknowledged in the policy document that indeed this will go along way in improving the image of Youth Polytechnics which can easily lead to an increase in access to the institutions.

Records available at the Ministry of Youth Affairs and Sports indicate that despite YPs in Bungoma East sub-county having a capacity of 1700 students; enrolment in these institutions is hardly above 500 students annually as shown in Table 1.1:

<table>
<thead>
<tr>
<th>Polytechnic</th>
<th>Machakha</th>
<th>Matulo</th>
<th>Mihuu</th>
<th>Sinoko</th>
<th>Sitikho</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>500</td>
<td>200</td>
<td>250</td>
<td>400</td>
<td>350</td>
<td>1700</td>
<td>100</td>
</tr>
<tr>
<td>Enrolment 2011</td>
<td>110</td>
<td>35</td>
<td>25</td>
<td>70</td>
<td>38</td>
<td>278</td>
<td>16.4</td>
</tr>
<tr>
<td></td>
<td>104</td>
<td>40</td>
<td>21</td>
<td>64</td>
<td>46</td>
<td>275</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>130</td>
<td>55</td>
<td>30</td>
<td>75</td>
<td>50</td>
<td>340</td>
<td>20</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>893</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ministry of Youth Affairs and Sports (2014)-Bungoma East

From Table 1.1, the annual capacity in all the polytechnics when enrolment is full is 1700 students’ while actual yearly enrolment in all the institutions fluctuated between 16% and 20% an indicator that access in the sub-county remains a big challenge. The situation even worsens when the above data is compared to school
leavers at both primary and secondary levels within the same time period who hadn’t accessed any training college as shown in Table 1.2.

Table 1.2: Class Eight and Form four school leavers.

<table>
<thead>
<tr>
<th>Year</th>
<th>KCPE</th>
<th>KCSE</th>
<th>Less 250</th>
<th>D+</th>
<th>D</th>
<th>D-</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>5453</td>
<td>3528</td>
<td>1122</td>
<td>639</td>
<td>668</td>
<td>409</td>
<td>76</td>
</tr>
<tr>
<td>2012</td>
<td>5329</td>
<td>3493</td>
<td>2616</td>
<td>552</td>
<td>639</td>
<td>411</td>
<td>9</td>
</tr>
<tr>
<td>2011</td>
<td>5312</td>
<td>3115</td>
<td>2521</td>
<td>354</td>
<td>212</td>
<td>72</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16094</td>
<td>10139</td>
<td>6259</td>
<td>1545</td>
<td>1519</td>
<td>892</td>
<td>87</td>
</tr>
</tbody>
</table>

Source: DEO, 2014 Bungoma East.

From Table 1.2, the total number of school leavers who got below 250 marks at primary level was 6,259 while at secondary school level; those who got below grade D+ were 4,043 giving a grand total of 10,302 during the same period according to the District Education Officer Bungoma East. These 10,302 students’ forms the bulk of potential YP trainees yet the institutions enrolled only 8.97% according to data provided in Table1.1. One wonders where the 91.33% students go or what they do given that they have no employable skills. This is really a time bomb for the sub-county and the country in general and puts the realization of Vision 2030 in jeopardy. The basis of this research therefore is to examine factors...
influencing these students not to enroll in TVET institutions within the sub-county.

1.2 Statement of the problem

The development of Youth Polytechnics is critical in Kenya’s efforts to create employment avenues for out of school youths. A study done by Simiyu (2009) revealed that the survival of any academic institution is largely dependent on enrolment rate and therefore one may wonder why this rate remains low in Bungoma East sub-county or what could be the factors influencing access to TVET in the sub-county? Studies show that some of the factors that may influence Access to TVET institutions include financial factors, socio-cultural factors, negative attitude towards YPs, inappropriate and relevant policies and inability of graduates to secure employment (Ngumbao, 2012; Muriithi, 2013; and Mursoi, 2013). However, none of the studies above focused on Bungoma East and they also did not look at other factors influencing access to Youth Polytechnics.

The success or failure of Youth Polytechnics to absorb both primary and secondary school graduates who had not enrolled in any training institution is evident in Bungoma East when looked at in relation to enrolment levels. The total annual capacity for the five Youth Polytechnics was 1700 trainees yet the total annual enrolment by all institutions was 340 trainees amounting to less than 20%. Granted so, then what is the future of the remaining 80% students? Annually,
10,302 students from primary and secondary schools graduated while the Youth Polytechnics only enrolled 893 trainees within the same period. This existed against increased government policy initiatives to improve access to Youth Polytechnics at both education levels for example increased funding for expansion and provision of student grants besides the concerted efforts made to sensitize the communities on the need to impress Youth Polytechnics by leaders and other stakeholders in the sub-county. Obviously, the youth situation could be a time bomb in the sub-county.

There is therefore need to look into the factors that influence access to public Youth Polytechnics within the region. The purpose of this study is therefore to investigate the factors influencing access to Youth Polytechnics in Bungoma East sub-county, Kenya.

1.3 Objectives of the study

The study aimed at achieving the following key objectives:

i) To examine how career opportunities influence access to VET in Bungoma East sub-county.

ii) To establish the extent to which parental level of income influence access to VET institutions.

iii) To determine how adequacy of physical facilities influence access to VET institutions.
iv) To examine how adequacy of human resources affect access to VET institutions.

1.4 Questions of the study

The study addressed itself to the following research questions;

i. To what extend does career opportunities influence access to VET in Bungoma East?

ii. To what extend does the parents’ level of income influence access to VET in Bungoma East?

iii. How does adequacy of physical facilities influence access to VET in Bungoma East?

iv. How does adequacy of human resource influence access to VET institutions in Bungoma East?

1.5 Significance of the study

It is hoped that this finding if adopted may be useful to; first policy makers in making useful suggestions to promote quality training in Technical and Vocational Education and Training Institutions (TVETIs). The study aimed at unearthing the weaknesses prevailing in Vocational Education and Training institutions in order to produce relevant graduates to meet the county’s development aspirations.
Secondly, the study finding may be useful to scholars as a reference material for data needed in promotion of quality Training in Vocational Education and Training. Thirdly, the finding may be useful to stakeholders in developing intervention measures needed for quality Training in Vocational Education and Training and lastly to the general growth in literature on issues related to access and quality training.

1.6 Limitations of the study

Limitations are conditions beyond the control of the researcher that may place restrictions on the conclusion of the study (Best and Khan, 1998). The researcher was not able to control or manipulate the attitudes and perceptions of the respondents. However, the researcher mitigated this by giving assurance to respondent’s confidentiality of their identity. The study was carried out in institutions in rural areas with a large majority of mixed students and therefore, the finding and recommendation could not equally be applied to public institutions especially those in urban settings. Additionally, the study could not investigate all the possible determinants of access to Youth Polytechnics like government policy, funding, social-cultural factors and role of community. It is however important to note that all the factors chosen in this study were significant. They could generate useful knowledge about access to Youth Polytechnics.
1.7 Delimitations of the study

The study was restricted to five public Youth Polytechnics registered in Bungoma East sub-county. Non-registered Youth Polytechnics were excluded from the study. The study used students and managers as respondents yet other stakeholders were very important in influencing access to Youth Polytechnics. Moreover, the study only considered four factors that were likely to influences access to Youth Polytechnics namely career opportunities, parent’s level of income, adequacy of physical facilities and human resources leaving out other equally vital factors.

1.8 Assumptions of the study

In trying to find out the factors influencing access to Technical Vocational Education and Training in Bungoma East sub-county, this study made the following assumptions:

(i) The sample chosen represented the entire population since there were many people involved in influencing access to TVET.

(ii) Data and the records available were up to date because information management systems in such institutions may be a challenging task.

(iii) That the information given would reflect a true report on access to Youth Polytechnics given that the researcher had no control over the respondents’ dissemination of any information.
1.9 Definition of significant terms

**Access** : refers to ability of student(s) to enroll in youth polytechnics

**Adequacy** : Refers to availability and sufficiency of resources used to provide desired results.

**Career** : Refers to the availability of chances for employment.

**Opportunities** :

**Human Resources** : refers to the teaching staff available in an youth polytechnic

**Physical facilities** : Refers to facilities that enable teaching and learning to take place in youth polytechnics.

**Technical Training** : Refers to Programmes that impart skills and knowledge to enable individuals take middle level professional position in the world of work.

**Vocation Education** : Refers to organized activity which enables learning as preparation for jobs in designated trades or occupations.

**Vocational Training** : refers to undertaking jobs related to a specific occupation.

1.10 Organization of the Study

The research project report was organized in five chapters. Chapter one covered background, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations of the study, delimitations of the study, assumptions of the study, definition of significant terms and organization of the study. Chapter two dealt with literature reviewed
focusing on factors influencing access to youth polytechnics, summary of literature reviewed, theoretical framework and conceptual framework.

Chapter three dealt with research methodology which included: introduction, study design, target population, sample size and sampling procedures, research instruments including observation, interviews and questionnaires. It also dealt with validity of research instruments, instrument reliability, and data collection procedure and data analysis. Chapter four dealt with data presentation, analysis and interpretation while Chapter five dealt with summary, conclusion and recommendation.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This chapter discusses the factors influencing access to TVET institutions namely career opportunities, parental level of income, adequacy of physical facilities and human resources. The theme of the chapter was captured by the research objectives.

2.2 Career Opportunities and its Influence on Access to TVET
Most of the students who complete primary and secondary schools do not have accurate information about occupational opportunities to help them make appropriate career choice. According to Hewitt, most students are influenced by careers that their parents favor or others follow careers that their educational choices have opened for them while some choose careers that give high income (Hewitt, 2010). This was why access to vocational education in Japan was low because youths felt that taking vocational courses would narrow their employment and educational options open to them while parents lacked the confidence to advise their children on vocational career opportunities because it did not guarantee them good jobs that earns high income (Batterham, & Levesley, 2011).

Jones and Larke researching in America on factors influencing Career Choice of African American and Hispanic students in the College of Agriculture found out
that limited job opportunities in agriculture led students to choose other careers (Jones & Larke, 2001). However, Needham & Papier established that in South Africa some students in the urban areas felt that vocational qualification would result in low salaries and learning pathways that excluded them from further studies (Needham & Papier, 2011). Myburgh also researching in South Africa on empirical analysis of factors that influence career choice of accounting students at the University of Pretoria found out that availability of employment, level of income and employment security influenced the student’s choice of the course (Myburgh, 2005).

In Kenya, most families struggle to meet basic human wants hence, monetary and material reward was an important determinant of career choice (Ngunjiri, 2013). He further noted that those careers that offer high living standards in terms of monetary and material rewards are attractive to many students. Research done by Mursoi on assessment of factors that influence secondary school students perception towards TVET in Eldoret West district noted that student perception to TVET institutions was shaped largely by people’s views for example parents, teachers / counselors, peers and their academic achievements (Mursoi, 2013). Additionally, Edwards and Quinter observed that Factors Influencing Students Career Choices among Secondary School students in Kisumu Municipality includes availability of employment and opportunities for advancement (Edwards & Quinter, 2011).
Despite the fact that much had been written about the individual variables influencing career choice, the literature review however, revealed that there was no empirical studies on this subject matter especially regarding to how career opportunities influence access to YPs in Bungoma East sub-county, Kenya. All the studies above focused on main stream academy education in secondary school and universities but not TVET institutions. This study will, therefore, seek to fill up this gap.

2.3 The effect of Parents Level of Income on Access to VET

Research done by Keriga and Bujra (2009) on effect of economic status on education noted that students from poor families are more likely to miss school than those from rich families because of failure to pay school fees. Becker and Tomes in their research in New York on the rise and fall of families noted that poor families were financially constrained hence could not invest in education of their children (Becker & Tome, 1996).

Research done by Akale in Nigeria found out that low income of parents could not sustain a child’s education in meeting direct and indirect costs (Akale, 2007). UNESCO’s report on Education for All noted that two thirds of those enrolled in educational institutions in Philistine, Bangladesh and Sub-Saharan Africa withdrew before the end of an education cycle due to parents’ low income (UNESCO, 2007). This is because low family income limits parent’s ability to
pay fees plus meeting other indirect costs of education while students risk repetition and eventually dropout of school.

Kenya’s economic survey report noted that Poor economic growth in Kenya led to persistent poverty among Kenyan households (RoK, 2013) who lived below poverty line and were therefore unable to access basic services like food, shelter, healthy and education. This was why Ngerechi observed that even though tuition fees in YPs was reasonable, it still remained high for most families that were poor (Ngerechi, 2003). This he noted hindered access and retention in TVET institutions because most often students are sent home for fees, get demotivated, disinterested and dropout. Research by Ngumbao on factors affecting youth enrolment in YPs in Mombasa County noted a direct link between economic status and enrolment rates (Ngumbao, 2012). Among the economic variables discussed included amount of fees charged which ultimately increased the cost of education.

From the above literature review, effect of income levels on education had been elaborated at different education levels like primary and secondary education in countries like USA and Nigeria, where, it had been noted that economic factors had a significant impact on enrolment levels. No research had been done in Bungoma East sub-county Kenya in relation to how parents’ level of income affects access to YPs and thus, this research intends to fill this gap.
2.4. Adequacy of physical facilities and their influence on access to TVET

Generally, it is agreed that the school's physical facilities like classrooms, libraries, desks, laboratories, books, and playing fields have a direct impact on students' performance in schools (Ayoo, 2003). Research done by Gurney in London noted that successful teaching and learning took place in school buildings that were safe, clean, quiet, comfortable, and healthy (Gurney, 2007). He further observed that lack of such facilities affects the teachers' morale and effectiveness while poorly maintained physical facilities affect the learners' ability to succeed because they impact on factors like learners' attitude towards the school, self-esteem, security, comfort, and social behavior.

A study done in Nigeria on quality educational output revealed that availability of physical facilities like text books, laboratories, and other equipment's was vital for effective teaching and learning (Adeyemi, 2008). He noted that lack of such facilities compromises quality teaching which affects enrolment in educational institutions. Ngunzo (2011) noted in his study on the impact of school infrastructure on access to secondary education in Kisumu Municipality that schools with modern facilities like laboratories and up-to-date equipment significantly attract and enroll more students, perform better, and have larger transition rates to University and other colleges than those without.
The Ministry of Education Science and Technology noted in its report that adequate and modern facilities were essential features of a sound and vibrant TVET system (MoEST, 2008). Availability of adequate and modern training facilities to cope with rapid technological changes has been an issue even with the richest nations according to the ministry report. In assessing YPs role in Kenya, Owano noted that provision of better equipped workshops, supply of training materials and greater emphasis on practical skills would improve the programme and lead to increased access (Owano, 1998).

According to National Development Plan 2002-2008, there was more theoretical teaching in YPs at the expense of practical skills due to inadequate and modern tools, equipment and materials for practical training. It was noted that most of the facilities were broken down, poorly maintained because funds were not there for maintenance (RoK, 2002). From RoK (2002) study, it was further observed that there existed a wide diversity in terms of enrolment and physical facilities among Technical Vocational Institutions. Enrolment in business oriented courses and applied sciences far exceed technical disciplines, thus defacing the original objective of establishment of Technical Vocational Educations and Training Institutions.
Whereas the studies focused on the importance and availability of physical facilities in enhancing quality education and training, none considered their adequacy and thus, this study intends to fill this gap.

2.5. Human Resource and their influence on access to TVET

In planning the quality of education and training, it is obvious that teachers are probably the most vital component of the entire education process. Towards this end Abuel-Ealer's study revealed that teachers are critical in the provision of quality education because they impart literacy and numeracy skills in addition to providing a set of complex, analytical, social and emotional skills (Abuel-Ealer, 2012). He went further to note that how they are prepared for teaching is a critical indicator of education quality given that good teacher training should deal with aspects like academic qualifications, pedagogical training, experience, in-service training and professional development. Therefore, he concluded that educational institutions should have sufficient and highly qualified teachers.

In Argentina, it was noted that teachers were vital in provision of quality education according to research done by Castro on teachers’ effectiveness who also noted majority (65% of 1200 teachers surveyed) had limited knowledge in English (Castro, 2000). Thus; the Federal Network of Teacher Training was designed to prepare teachers for curricular changes, skill development and use of instructional materials in the subject matter. The government of Argentina noted
an improvement of students’ performance in the subject particularly in the poorest areas of the country (Decibe, 2000).

Research contacted in Tanzania on “Issues and challenges of quality education in Ward secondary school” revealed declining educational standards in educational institutions due to poor quality of teachers (Tanzania Education Network, 2006). Both teachers and students had no mastery of language of instruction in English which affected its performance in national examinations. Therefore, during the quality education conference organized by Tanzanian Education Network and OXFAM GB, participants pointed out that teacher competencies, training and welfare were the core ingredients for quality education and thus, recommended to the Ministry of education to provide a total package for pre-service training of two years for primary and secondary school teachers and also develop and implement a comprehensive, well planned and co-ordinated in-service training programme. In 2008, the government together with OXFAM financed seminars in English courses and information communication technology integration in curriculum delivery. This led to improvement in performance mostly in English, an indicator that the teacher as an implementer of curriculum is a key determinant of students’ education quality (Abuel-Ealeh, 2012).

In Kenya, research done by Khatete noted that teacher characteristics after pre-service training can be improved through in-service programmes whose aim
should be to enable a practicing teacher improve on instructional and professional knowledge, interests and skills (Khatete, 2010). Therefore, to him improvement in quality of learning depends on improvement of teacher competency since they are at the center of teaching and learning process and moreover, the quality of Technical Vocational Education and Training to a great extent depends on the competence of the trainer. It was observed that teachers in VET institutions lack necessary industry-based technology skills updated through industrial attachment (Nyerere, 2009). Nyerere further noted that Kenya Technical Training College (KTTC) had shifted from its original mandate as a producer of trainers and was now competing to offer programs similar to National Polytechnics and therefore quality technical teacher training had been completely compromised.

Moreover, teachers in Vocational Education and Training Institutions rarely go for in-service trainings, lack a scheme of service and earned little salaries hence had low morale. The few qualified teachers left the profession due to low salaries, difficult working conditions and insufficient professional support (Bourgonje and Tramp, 2011). None of the above research focused on Youth Polytechnics in Bungoma East and this research intends to fill this gap.

2.6. Summary of Literature Reviewed

Literature reviewed involved studies internationally regionally and nationally which focused on factors that influence access levels in educational institutions.
Hewitt (2010), Batterham and Levesley (2011), Jones & Larke (2001), Needham & Papier (2011) and Myburgh (2005) studies on Career choices noted that careers which guarantee employment and attract high salaries experience high access than those that does not. While their findings were quite informative, none focused on Bungoma East. In addition, the studies never focused specifically on influence of career opportunities on access to TVET and therefore, this study intends to fill this gap.

Keriga and Bujra (2009), Becker and Tome (1996) and Akale (2007) studied on influence of income levels on access to educational institutions generally. Ngumbao (2012) studied on factors influencing enrolment levels in Youth Polytechnics in Mombasa and concluded that the amount of fees charged is critical in increasing education costs which eventually impact on enrolment rates. All the studies never dealt with how parental level of income influences access to Youth Polytechnics in Bungoma East. Moreover, the studies dwelt on mainly desktop review of literature with limited use of actual field studies. They also used limited instruments that could not solicit sufficient real-time and current data for analysis and hence, this study intends to fill this gap.

Additionally, literature from Ayoo (2003), Gurney (2007) and Adeyemi (2008) also revealed that physical facilities had an impact on educational quality and hence, influence access greatly while Abueler-Ealer (2012), Khatete (2010) and Bourgonje and Tramp (2011) studies on influence of human resource on
enrolment levels in education were in agreement in their conclusions that well trained, qualified and properly in-serviced teachers was an indicator of education quality. Given that these studies did not focus on the influence of human resource on access to TVET and in particular in Bungoma East, this study intends to fill this gap.

2.7 Theoretical Framework

The theoretical framework of this study was based on the Human Capital theory as proposed by Schultz (1961). The theory assume that formal education and training increases the productivity of workers by imparting useful, relevant, sustainable knowledge, skills, competencies and social values. This theory relates directly to TVET because of its orientation towards the world of work plus its emphasis on acquisition of employable skills. Moreover, TVET train skilled and entrepreneurial workforce that nation may require to create wealth and emerge out of poverty. To this end, it increases the productivity of workers just the same way machines increase productivity in entrepreneurship. This is why education is considered as a capital good responsible for developing human skills required for production of goods and services in the economy. Empirical studies (WB, 1993), show that there is a strong connection between access to VET and rapid economic growth.
However, Human Capital Theory had been criticized on several grounds for example at the individual level, it had become controversial whether or to what extend education and other forms of human investments are directly related to improvement in occupation and income. Moreover, the theory fails to account for a growing gap between increased expansion of education and the diminishing number of commensurate jobs especially in developing countries. The increasing learning efforts have not led to substantial economic gains due to declining educational standards and at the same time, the theory fails to account for the widening gap between increased access to education and lack of appropriate skills to fast track economic growth and development mostly in developing nations.
2.8 Conceptual Framework.

Figure 2.1 Factors influencing Access to YPs.

- **Career Opportunities**
  - Availability of jobs.
  - High salaries.

- **Parental Income**
  - Level of income.

- **Physical facilities**
  - Classrooms
  - Workshops

- **Human resource**
  - Teachers, training qualifications.

- **YP Education**
  - Apprenticeship Training.
  - On the job training

- **Access to YPs**
  - Increased enrolment rate.
  - Increased retention rate.
  - Increased completion rate.

Source: Researcher 2015

The above conceptual framework highlights factors influencing access to YPs namely; Career opportunities, Parental level of income, Physical facilities and Human resources that may be instrumental in enhancing provision of Youth Polytechnic education, apprenticeship training and on the job trainings among
others. This eventually determines access levels to Youth Polytechnics which may be measured by increases in enrolment rates, retention rates or completion rates. The education production function summarizes the relationship between inputs and outputs in the educational training process. When students perceive that TVET doesn’t grantee them good jobs that can result in high income and social status then, they will not enroll in the institutions. Also, if TVET can’t grantee opportunities for further studies then access will remain low. Poor parents can’t meet direct and indirect costs of education hence their children continue to remain out of educational institutions.

Institutions with enough and modern teaching and learning resources will provide quality teaching hence increased access. Moreover, availability of human resource is critical to preparing students with quality marketable skills and thus, if there are no sufficient, trained and qualified teachers then access will be low.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
The chapter discusses the methodology that was used to conduct the research namely research design target population, sampling and sampling techniques, research instruments, the validity and reliability of the research instruments, data collection procedures and data analysis techniques and ethical considerations.

3.2 Research Design
The study adopted descriptive survey research design which was appropriate in investigating factors influencing access to YPs in Bungoma East. The design involved asking similar set of questions in the form of a written questionnaire and an interview schedule to respondents. It allowed gathering of large data from a relatively large number of cases at a particular time, was less costly and more confidential (Saunders, 2007). Descriptive survey was appropriate for the study because it involved fact findings which enabled the researcher to gather data at a particular point in time and used it to describe the existing conditions.

3.3 Target Population
There were five registered public youth polytechnics in Bungoma East sub-county with a total of 340 students enrolled. The target population for the study consisted of five managers, one youth sub-county training officer and 120 finalist youth
polytechnic trainee students. Finalist students were used in the study because they were likely to make adequate responses given that they had a lot of experience. Sub-county youth training officer was interviewed to give in-depth information concerning adequacy of human resources in the sub-county.

3.4 Sample Size and Sampling procedures

In this study, Stratified random sampling technique was used to select 35% finalist students from a total of 340 students in five Youth Polytechnics who took part in the study. Mulusa (1990) recommends a sample size of 30% to be appropriate in making estimates of the characteristics studied. However; the researcher used 35% as a sample to take care of non-response cases which could make the sample fall below recommended rate.

This technique allowed the researcher to achieve the desired representation of the sub-group in the population. Subjects were randomly selected in a way that the existing sub-groups in the population were fairly represented in the sample taking into consideration gender balance. All managers were requested to complete the questionnaires. The sub-county youth training officer was also part of the study because her administrative position allowed her to be well versed with government policies that influence access to YPs. In total, the sample consisted of 120 students, 5 managers and 1 sub-county youth training officer.
### Table 3.1: Target sample population of students per Institution

<table>
<thead>
<tr>
<th>Polytechnic</th>
<th>Machakha</th>
<th>Matulo</th>
<th>Mihu</th>
<th>Sinoko</th>
<th>Sitikho</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 Enrolment</td>
<td>130</td>
<td>55</td>
<td>30</td>
<td>75</td>
<td>50</td>
<td>340</td>
</tr>
<tr>
<td>Sample</td>
<td>45</td>
<td>20</td>
<td>10</td>
<td>30</td>
<td>15</td>
<td>120</td>
</tr>
</tbody>
</table>

Source: Researcher 2014.

### 3.5 Research Instruments

In collecting data, three instruments were used namely interviews, questionnaires and observation. Questionnaires were used because they guaranteed uniformity of data and, were appropriate because all respondents were literate and capable of answering the items written in English language. They were administered to all the sample population after being designed in structured form. Unstructured items were included to allow in-depth responses and give insight in the respondent’s feelings, hidden motives, interests and decisions which gave room for qualitative analysis (Mugenda & Mugenda, 1999).

The interview schedule for the youth officer was designed to contain items that dealt with issues which related to the adequacy of government policies on access. Interview schedule allowed the researcher to obtain in-depth data which was not possible to get using a questionnaire. The researcher used unstructured questions to seek out the relevant information while taking notes during the interview. Observation being a skilled activity with extensive background knowledge,
understanding, capacity for original thinking and ability to spot significant events (Lisa, 2008) was used to collect information on the institutional factors visa av physical facilities.

3.5.1 Instruments Validity

The research instruments were validated before by my supervisors who are senior education experts at the University of Nairobi. They reviewed and analyzed the contents of the questionnaires, interviews and observation schedules in order to ascertain the instruments suitability for the purpose for which they were designed. They offered suggestions which the researcher used in making the necessary corrections and improvements to the instruments.

3.5.2 Instrument Reliability

Reliability is a measure of degree to which a research instrument gives consistent results after repeated trials (Mugenda & Mugenda, 1999). The test re-test technique used involved administering the same instruments twice. The researcher administered questionnaires to students and managers in one YP. Orodho (2009) noted that the pre-test should be 10% of the sample. Thus out of five YPs, one YP was selected. After two weeks interval, the same questionnaires were administered in the same way to the same groups.
The two scores were then correlated to establish whether the contents of questionnaires were consistent in eliciting the same responses every time the instruments were administered. The coefficient of reliability was calculated using the Pearson Product Moment correlation (r) using the formula:

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

Where:

- **X**-scores of test 1
- **Y**-scores of test 2
- **N**-number of pairs of data
- **Σ**- Summation

Respondents’ x-scores and y-scores were used to calculate the value of r which was evaluated based on:

<table>
<thead>
<tr>
<th>Correlation (r)</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 – 0.2</td>
<td>negligible</td>
</tr>
<tr>
<td>0.2 – 0.4</td>
<td>low</td>
</tr>
<tr>
<td>0.4 – 0.6</td>
<td>moderate</td>
</tr>
<tr>
<td>0.6 – 0.8</td>
<td>substantial</td>
</tr>
<tr>
<td>0.8 – 1.0</td>
<td>high to very high</td>
</tr>
</tbody>
</table>

Any value of r lower than 0.7 should be considered unreliable for it cannot be used to make accurate predictions (Charles, 1988). The calculated value of r was 0.746 hence, the instrument was found reliable. This reliability is acceptable method in survey research that is qualitative in nature since it leads credibility to
the findings of the study when based on several accounts and sources (Mugenda and Mugenda, 2003)

3.6 Data Collection Procedure

The researcher obtained a research permit from the National Commission for Science, Technology and Innovation before embarking on data collection in the field. He sought permission to administer research questions from the County Commissioner and county director of education. The students and managers questionnaires were administered in person by the researcher. To facilitate high rate of return, the questionnaires were collected the same day. However, those that were not filled on the same day, arrangements were done for another day convenient to the researcher and respondents.

The researcher contacted the youth officer earlier to book for the interview appointment. The interview was carried out on the appointed day. The researcher personally administered the instruments and took notes during the interview session. Enough time was given to the respondents to respond to all items.

3.7 Data Analysis Techniques

Questionnaires administered to students and managers were first checked to ensure completeness. Qualitative and quantitative data was collected to provide for a balanced assessment and interpretations. The answered questionnaire copies
were first grouped manually according to categories with the youth officer and also from the open ended items in the students and managers’ questionnaires. To analyze quantitative data, data was scrutinized for completeness, accuracy and uniformity then coded according to themes and then keyed in the statistical package for social science (SPSS) computer package. This programme was used to analyze the data. Analyzed data was presented through descriptive statistics using frequency distribution tables and percentages. Being a descriptive study, descriptive statistics in the form of frequencies, tables and percentages was used to analyze the qualitative data.

### 3.8 Ethical Considerations

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

4.1 Introduction

This chapter presents the findings of the study that answers the research questions

i) To what extend does Career opportunities influence access to Vocational Education and Training in Bungoma East sub-county?

ii) To what extend does the parents’ level of income influence access to Vocational Education and Training in Bungoma East sub-county?

iii) How does adequacy of physical facilities influence access to Vocational Education and Training in Bungoma East sub-county?

iv) How does adequacy of human resources influence access to Vocational Education and Training in Bungoma East sub-county?

The quantitative findings are presented in tables, histograms and pie-charts. Qualitative findings have been incorporated in research findings on the basis of reviewed literature and field experience and have been shown subjectively in the researchers commend.

4.2 Questionnaires Response Rate

Researcher administered questionnaires to the respondents whose rate of response is as shown in Table 4.1
### Table 4.1 Youth’s Response Rate to Questionnaires.

<table>
<thead>
<tr>
<th>Polytechnic</th>
<th>Number of Questionnaires</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Issued</td>
<td>Returned</td>
</tr>
<tr>
<td>Machakha</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Matulo</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Mihuu</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Sinoko</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Sitikho</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>120</td>
<td>120</td>
</tr>
</tbody>
</table>

Source: Field data 2015

From Table 4.1, the average response rate was 100% in all the institutions. This was because the researcher went to the field in person administering questionnaires and clarifying issues where necessary. The researcher therefore determined that this response rate would be sufficient to produce reliable results.

All the managers filled and returned the questionnaires and therefore, their response rate was 100%. The total number of targeted respondents represented populations but not samples and therefore, the researcher determined that this would be sufficiently representative.
4.3 Demographic information of respondents

Table 4.2: Students’ Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>74</td>
<td>56.5</td>
<td>56.5</td>
</tr>
<tr>
<td>Female</td>
<td>57</td>
<td>43.5</td>
<td>43.5</td>
</tr>
<tr>
<td>Total</td>
<td>131</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From table 4.2, majority of the respondents (56.5%) were male whereby majority of them (66.9%) had their ages lying between 15-20 years followed by 21-25 years (29.1%) while 15 years (3.1%).

Table 4.3: Managers’ Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data 2015

From Table 4.3 majority were male (80%). Most of them (60%) had their ages ranging from 36-40 years. The study sought to find out their academic qualifications. The findings are given in Table 4.4
Table 4.4: Academic Qualification of Managers of Youth Polytechnics

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma Technical education</td>
<td>3</td>
<td>60</td>
</tr>
<tr>
<td>Bachelor of education</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source; Field data 2015

From Table 4.4, Majority of managers (80%) held diploma in technical education while the rest (20%) held bachelor’s degree in education

4.4-Influence of Career Opportunities on Access to TVET

The study sought to establish the extent to which career opportunities influenced students’ enrolment in youth polytechnics in Bungoma East sub-county. In examining the extent to which career opportunities had influenced access to youth polytechnics, the researcher asked students the reasons that could have motivated them to enroll in their courses and what the government could do to increase enrolment in youth polytechnics in the sub-county. The findings are given in table 4.5
Table 4.5: Trainees Motivation for enrolling in Youth Polytechnic

<table>
<thead>
<tr>
<th>Reason</th>
<th>frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get a job</td>
<td>124</td>
<td>94.7</td>
</tr>
<tr>
<td>Go to university</td>
<td>7</td>
<td>5.3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data 2015

Table 4.5 reveals that majority (94.7%) of the respondents enrolled for vocational training in polytechnics with the hope of getting employment. The researcher interpreted this to imply that more trainees can enroll in Youth Polytechnics if they could be employed immediately they graduate from the institutions. The study further sought to establish from the trainees measures that could be initiated by the government to boost enrolment. Results are shown in figure 4.1
From Figure 4.1, majority of the respondents (55%) stated that the government should provide job opportunities for polytechnic graduates. Indeed one polytechnic manager remarked

“How do you expect student enrolment to increase when a majority of graduates are jobless “

The above finding suggests a linear relationship between access to Youth Polytechnics and employment in the sense that guaranteed trainee employment is likely to increase access to Youth Polytechnic institutions. This concurs with Batterham and Levesley (2011) finding that access in Japan was low because
students felt that taking vocational courses narrowed their employment and educational options.

4.5 The effect of parental level of income on Access to TVET

The level of income determines quality of education provided because students from poor families are more likely to miss school than those from rich families due to failure to pay school fees. The study sought to establish the type of job done by trainees’ parents and how they raised their school fees. The findings are given in figure 4.2.
As indicated in figure 4.2, 68.7% of the respondents’ fee was paid by parents. This was interpreted to imply that majority of parents were aware and committed to their obligation of paying fees for their children in Youth Polytechnics.

The ability of parents to raise fees may have been influenced by their level of income. Towards this endeavor, the study therefore sought to establish the economic background of parents. The findings are given in figure 4.3.

Source: Field data 2015
Figure 4.3: Occupation Parents.

Source: Field data 2015

Figure 4.3 shows that 60.3% of the respondents’ parents were peasant farmers who hardly produce enough for family consumption because peasant farmers employ traditional methods of farming and also utilizes family labour. This was likely to influence payment of tuition fees for Youth Polytechnic trainees given that the occupation yields low income. With this social economic set up, the researcher sought to establish the level of fees payment and whether trainees experienced any difficulty. Trainee response is given in Table 4.6.
From table 4.6, 90.8% of the respondents’ parents had difficulties in paying fees. This may easily lead to dropout by the trainees or absentism from the institutions. The researcher sought to also find out from the managers whether the level of income had any impact on enrolment in polytechnics. The findings are given in Table 4.7

Table 4.7: State of Enrolment in Polytechnics.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate</td>
<td>1</td>
</tr>
<tr>
<td>Inadequate</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Field data 2015

Table 4.7 shows that 80% of the polytechnics had inadequate enrolments. The researcher interpreted this to be due to the economic set up of the community.
Thus, family background was likely to affect the motivation to attend school and the ability to access career information related to the training. This finding agrees with Kenya’s economic survey report (RoK, 2013) which noted that most households in Kenya lived below the poverty line hence, were characterized as poor. Additionally, the findings were in line with Keriga and Bujra (2009) research which revealed that students from poor families are likely to miss education due to failure to pay fees than those from rich families.
4.6 Adequacy of Physical Facilities and their Influence on Access to Youth Polytechnics

Physical facilities like classrooms, libraries, desks, laboratories, workshops, books and playing fields in any learning institution have an impact on access and education quality. The researcher sought to establish the adequacy of physical facilities in Youth Polytechnic from trainee students and managers. The response is given in Table 4.8

Table 4.8: Students Response on Adequacy of classrooms and workshops

<table>
<thead>
<tr>
<th>Facilities</th>
<th>frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classrooms</td>
<td>No</td>
<td>129</td>
</tr>
<tr>
<td>Workshops</td>
<td>No</td>
<td>130</td>
</tr>
</tbody>
</table>

Source: Field data 2015

From table 4.8, 129 of the trainee respondents agreed that classrooms were not adequate while equally the same number of 130 said that workshops were not enough. It was observed that Youth polytechnics lacked basic physical facilities like desks making it difficult for trainees to comfortably carry out their studies. Teaching of practical subjects like mechanics and carpentry was also carried out theoretically. This concurred with the position of the youth sub-county officer who argued that physical facilities in all the institutions were a major issue of concern. The researcher’s general assessment of physical facilities agreed with
this finding because in some institutions, facilities like playing fields were totally not there yet these are institutions charged with the duty of training the youths who are full of energy and are expected to develop their talent.

The interpretation of this was that Youth polytechnics could be offering courses for which they have no adequate facilities or teachers were not effectively conducting practical lessons. This greatly affects the quality of training and risks public confidence in the trainees. Moreover, this could also make such courses to be shunned by trainees creating a shortage of such technicians in future. Lack of playing grounds showed that trainees were not actively engaged in sports activities or if there was any such an engagement then it was limited at the institutional level but not competitive. Overall, the inadequacy of physical facilities was likely to compromise the teachers’ morale to teach and the quality of Youth Polytechnic graduates.

This was in line with various studies for example Kenya’s National Development Plan of 2002-2008 which observed that there was more theoretical teaching in Youth Polytechnics at the expense of practical skills due to inadequate facilities. In Nigeria, it was noted by Adeyemi (2008) that lack of physical facilities compromises quality teaching that eventually affects enrolment rates.
### 4.7 Influence of adequacy of human resources on access to youth polytechnics

Teachers form a critical component of human resources in educational institutions because they play a fundamental role in provision of quality education. The study sought to establish the availability, adequacy and quality of teachers in Youth Polytechnics. The findings of the study are given in Table 4.9.

**Table 4.9: Students Response on Adequacy of teachers in youth polytechnics**

<table>
<thead>
<tr>
<th>Adequacy of teachers’</th>
<th>frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>No</td>
<td>130</td>
<td>92.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>131</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field data 2015

The results from table 4.9 indicate that 92.8% trainees felt that teachers were not enough. This was likely to be one of the causes of poor quality education in Youth Polytechnics given that the quality of teachers is critical in enhancing quality vocational training in Youth Polytechnics. The researcher also sought to establish the qualification of teachers in Youth Polytechnics. The findings are given in Table 4.10.
Table 4.10: Qualification of Teachers in Youth Polytechnic

<table>
<thead>
<tr>
<th>Education level</th>
<th>Machakha</th>
<th>Matulo</th>
<th>Mihuu</th>
<th>Sinoko</th>
<th>Sitikho</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Diploma</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>6</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Certificate</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Source; Field data 2015

From table 4.10, 20 teachers had certificates while the two under “others” had qualifications in craft level training. Given that this constituted all the institutions under study, it may imply that majority of the instructors were of low qualifications and therefore may have challenges in their teaching duties in terms of professional work ability and performance in the institutions. Additionally, this also may limit the type and relevance of courses offered by the institutions besides impacting on the quality of trainees being channeled in the labour market by the same institutions. This was in agreement with research done in Tanzania by Tanzanian Education Network (2006) which revealed that quality of teachers determined the level of educational standards. On whether the few teachers available undergo in-service training or not, managers were unanimous that they had not attended any in-service course due to lack of funds and poor numeration which lowered their morale among other factors.

The researcher interpreted this to imply that training instructors in Youth polytechnics lack updates of necessary industry-based technology skills through
industrial attachment. This finding concurs with Nyereres (2009) study who noted that teachers in the Youth polytechnics rarely go for refresher courses. It also agreed with Bourgonje and Tramp (2011) findings that teachers in Vocational Education and Training institutions lack professional support earn little salaries, rarely go for in-service training hence, and have very low morale.

When asked to suggest measures that can be taken by the government to increase enrolment in youth polytechnics, managers said that the government should employ more teachers and pay them well in order to retain them in the institutions among other factors. Therefore, these revelations go an extra mile to show that indeed there could be an urgent need for more teachers to be employed in all the youth polytechnics in the sub-county to enhance more access to vocational training by youths. Additionally, it may suggest that some courses could be discontinued due to lack of instructors.
CHAPTER FIVE
SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Introduction
The purpose of this study was to find out factors influencing access to TVET with specific reference to youth polytechnics in Bungoma East sub-county. This chapter contains a summary of the findings and recommendations based on the findings of the study objectives. In each case, the researcher briefly states the findings and general implication they have towards access to public youth polytechnics in Bungoma East sub-county. At the end of the chapter, the researcher highlights areas that need further research.

5.2 Summary of the study
The study investigated the factors influencing access to Technical and Vocational Education and Training in Bungoma East sub-county with specific reference to public youth polytechnics. Four objectives guided the study namely to examine how career opportunities influence access to Vocational Education and Training; to establish the extent to which parental level of income influence access to Vocational Education and Training; to determine how adequacy of physical facilities influence access to Vocational Education and Training and to examine how adequacy of human resources affect access to Vocational Education and Training. The study adopted descriptive survey design and targeted five registered
public Youth Polytechnics in Bungoma East sub-county. The research instruments used were interviews, questionnaires and observation. The raw data was coded into themes and concepts and analyzed using both descriptive and quantitative statistics. Statistical package for social scientists was used for data analysis. Data was analyzed using frequencies presented in tables, percentages, pie-charts and histograms. Qualitative data was incorporated in research findings on the basis of reviewed literature and field experiences. This was shown up subjectively in comments of the researcher. The findings enabled the researcher to establish the recommendations of the study.

5.3 Summary of the research findings

The first objective examined how career opportunities influence access to Technical and Vocational Educational and Training institutions in Bungoma East sub-county. Two indicators namely the ability to get employment and career advancement were used to test the influence of career opportunities on access. Data was obtained from questionnaire responses by trainee students to test them on what motivated them to enroll in youth polytechnics and their future plans in advancing their education. From the statistical data, 94.7% affirmed that their enrolment in Youth Polytechnics was majorly influenced by the desire to get jobs while when asked to suggest what the government could do to increase access to youth polytechnics; 55% were unanimous that there was need for them to be employed after graduation. However, the poor infrastructure, inadequate and lack
of qualified teachers compromised the quality of training in Youth Polytechnic, making it difficult for graduates to gain meaningful employment. Concerning their ability to advance their education status, data revealed that most of the youths had no motivation to pursue their education up to university because only 5.3% expressed the desire to go up to higher institutions probably due to ignorance about career advancement opportunities. This finding was in agreement with works of Hewitt (2010) who found out that some people only choose careers that give high income. Moreover, Levesley and Chrysalis (2011) cited the ability to get employment and widening educational options as key determinants of access to youth polytechnics. Additionally, the finding was also in agreement with Needham and Papier (2011) who established that some students felt Vocational qualifications would result in low learning pathways that excluded them from further studies.

The second objective was to establish the extent to which parental level of income influence access to youth polytechnics in Bungoma East sub-County. Three indicators namely type of occupation; type of family and the mode of trainees’ fee payment were used to assess influence of income. The analysis also focused on their occupation which had a direct effect on their ability to cater for the direct and indirect costs of vocational education of trainees in polytechnics. Data on parental occupation revealed that the main source of income for majority of the respondents’ parents was agriculture which was practiced at the direct level of
production. This constituted 60.3% while the unemployed trainee parents constituted 25.2% implying that access of trainees to Youth Polytechnic institutions was likely to be affected because of nonpayment or totally no payment of fees.

Moreover, the 60.3% implied that most of their parents or guardians relied on small scale farming at the direct level of production which makes them hardly produce enough to sustain their families leave alone selling to pay fees. This may explain why poverty levels had remained high among the households and therefore was likely to be one of the major causes of poor payment of fees and the poor state of infrastructure in Youth Polytechnics. Responses from managers seemed to affirm this aspect of poverty among the parents because it came out clearly from their opinions that indeed dropout rates were high due to poor fee payment.

Concerning the type of families, 60% of the respondents noted that they came from polygamous set ups characterized by many siblings. This strained their economic levels further making it impossible for them to pay fees for the trainees. Moreover, 45% of the respondents said that they were orphaned due to HIV/AIDS syndrome that killed their parents making it difficult for them to raise fees. Questionnaires on who paid their fees revealed that 26.7% of the respondents’ fees were paid through bursary while 3.8% engaged in income generating
activities like riding bodabodas so that they could pay fees. This compromised their regular learning because they could occasionally dropout to raise fees before they return to continue with their training. This made them to take longer than expected. This finding agreed with Keriga and Bujra (2009) who noted that students from poor families are more likely to miss school than those from rich families because of failure to pay school fees.

The study also investigated the influence of physical facilities on access to youth polytechnics. The researcher assessed the adequacy and availability of physical facilities in the institutions by use of two indicators namely respondents view on the state of physical facilities and use of observation sheet by the researcher to analyze the state of the facilities. Results showed that 98.5% of trainees and 96% of managers’ responses indicated that polytechnics had inadequate physical facilities. When asked in their own view what could be done to increase enrolment in youth polytechnics, 45% of trainees suggested provision of more physical facilities like construction of modern classrooms, desks, libraries, workshops, laboratories and playing fields. Indeed this was confirmed by the researchers’ observation checklist, that indeed polytechnics in the county are in dire need of physical facilities ranging from classrooms, libraries, demonstration fields, workshops and playing fields for sport activities.
In some polytechnics, it was observed that some classes took place under trees; facilities like sewing machines were very few to the extent that ten trainees shared one machine while workshops were not available. This was likely to compromise quality of education. This finding was in agreement with Gurney (2007) which determined that physical facilities influence access because they had a bearing on educational quality given that successful teaching and learning only takes place in school buildings that are safe, clean, comfortable and healthy. Additionally, the finding also concurs with the National Development Plan (2002-2008) that noted there was more theoretical teaching in Technical and Vocational Education and Training Institutions due to inadequate modern tools, equipment and materials for practical teaching.

Finally, the fourth objective was to ascertain how adequacy of human resource influences access to youth polytechnics in Bungoma East sub-county. In this endeavor, the researcher assessed the availability and quality of teachers in the youth polytechnics that is, the number of teachers available, their qualifications and how often they attend programmes like in-service induction courses. From the results, 92.8% of trainee respondents and 97.3% of the managers were in agreement that Youth Polytechnics did not have enough trained and qualified teachers. Even the few available teachers were mainly of low qualifications at the minimal grade of certificate. This was likely to impact negatively on provision of quality training in Youth Polytechnic in the sense that it may narrow the
curriculum offered besides dealing with the bloated classrooms. The study also established from the polytechnic managers that teachers hardly attended in-service training even though all of them were more than willing to undergo the training. Granted that an in-service training is meant to sharpen the pedagogical skills of teachers then this non-participation by the teachers is likely to put to question the quality of Youth Polytechnic trainees. This finding agrees with Khatete (2010) findings that provision of in-service training enables the practicing teacher to improve on instructional and professional knowledge, skills and interests. Moreover the finding agrees with Bourgonje and Tramp (2011) that teachers in Vocational Education and Training institutions rarely go for in-service trainings, lack a scheme of service, earn little salaries and therefore have low morale.

5.4 Conclusions of the study
Based on the research finding, the following conclusions are made:

From the foregoing discussion, it is clear that Youth polytechnic trainees are not employed by either the national or county governments. This was evident since 55% of the respondents felt they should be employed immediately they graduate. Also the research concludes that the Youth Polytechnic trainees lack knowledge on the existing career opportunities as revealed by 94.7% of the respondents who had no motivation at all to further their studies up to higher institutions.
As regards to the extend that parental level of income influence access to TVET, the study concludes that majority of the trainees parents are poor and as a result, they cannot effectively meet the direct costs of their children in Youth Polytechnics. This was affirmed by 60.3% respondents who said that their parent were peasant farmers who hardly produced enough for family consumption let alone selling to pay fees.

On the matter of how adequacy of physical facilities influences access, the study concludes that Youth Polytechnics in Bungoma East have inadequate facilities like classrooms, desks, workshops, laboratories and games equipments. This is evident because 98.5% of the respondents indicated that indeed classrooms were inadequate while equally the same percentage (99.2%) agreed that workshops were inadequate.

Finally, with regard to how adequacy of human resource influences access, the research concludes that Youth Polytechnics have inadequate instructors with very low qualifications. This was supported by 92.8% of the trainee respondents who indicated that teachers in Youth Polytechnics are inadequate. Moreover, only two teachers in the all the five Youth Polytechnics had degree certificates. This impact negatively on provision of quality training in Youth Polytechnics making it difficult for graduates to gain employment.
5.5 Recommendations

In view of the finding and conclusions, a number of recommendations are suggested;

1. There should be enhanced provision of more incentives for example financial credit to trainee graduates to empower them in setting up technical and vocational related businesses of their choice immediately after graduation. Also career department should be set up to advise the trainees on relevant career opportunities and advancement.

2. There is need to increase amount of bursaries and grants to students. This will enable trainees from poor backgrounds to access YP education besides enhancing their retention in the institutions.

3. The national and county governments plus other stakeholders should ensure that more funds are allocated to Youth Polytechnics to enable them acquire adequate and modern facilities to provide quality training. Private partnerships should be brought on board to support the construction of modern physical facilities.

4. Adequate and qualified human resource provision to Youth Polytechnics should be made a key priority by National and County governments. Teacher professionalism should be enhanced through capacity building. Adequate funds should be provided for the in-service course training and
workshops. County government of Bungoma should play a more proactive role towards this endeavor.

5.6 Suggestions for further studies

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

i) The effect of teachers’ academic and professional qualifications on the quality of Youth Polytechnic graduates.

ii) The relevance of curriculum of Youth Polytechnic in production of employable graduates.

iii) The researcher suggests the need for a similar research that will focus on all youth polytechnics in the larger Bungoma County.

iv) The influence of youth’s perception towards access to youth polytechnics in the larger Bungoma County even though it was not among the variables under this study.
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APPENDICES

Appendix A: Letter of Introduction

Benedict M. Kitui,

The University of Nairobi,

P. O. Box 30197 – 00200, Nairobi, Kenya.

Dear Respondent,

RE: REQUEST FOR ASSISTANCE TO FILL IN RESEARCH QUESTIONS

I am a student at The University of Nairobi, Kikuyu campus carrying out a study on factors influencing access to technical and vocation education and training (TVET) in Bungoma East sub-county. Your responses to this questionnaire will assist me in writing a project in partial fulfillment for the award of a Master of Education in Economics of Education degree. You do not need to write your name in this questionnaire. Your participation is strictly voluntary while your personal identity will be kept confidential.

Thank you.

Yours faithfully,

KITUI M BENEDICT
Appendix B: Students Questionnaire

This questionnaire has been designed to identify factors influencing access to Youth Polytechnics in Bungoma East sub-county. Kindly fill this questionnaire as accurately as possible and **DO NOT** indicate your name anywhere.

**PART I: PERSONAL INFORMATION**

Please tick ONE appropriate to you in each item.

1. What is your gender?
   
   (i) Male [ ]
   
   (ii) Female [ ]

2. Where does your age lie?
   
   (i) 15-20 yrs[ ]
   
   (ii) 21-25yrs [ ]

3. What is the occupation of your Parent/Guardian?
   
   (i) Farmer [ ]
   
   (ii) Artisan [ ]
   
   (iii) Business [ ]
   
   (iv) Other specify……………………………………

4. Does your parent/guardian have problems paying fees?
   
   (i) Yes [ ]
   
   (ii) No [ ]

5. If yes in 5 above, list any two reasons why they have problems?
   
   …………………………………………………………………………………………………………………
6. What motivated you to enroll in the institution?
   
   (i) Parent []
   (ii) Friend []
   (iii) Self []
   (iv) Others……………………………………………………………………………………

8. Please indicate with a tick (✓) the extend of your agreement with the statement given in the appropriate space:

   SA: Strongly agree
   
   A: Agree
   
   U: Undecided
   
   D: Disagree
   
   SD: Strongly disagree
<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> TVET institutions are meant for students who fail to proceed to secondary school or join university</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2</strong> TVET institutions do not play any significant role in equipping an individual with employable skills and developing their talents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3</strong> TVET institutions are only meant for failures in the society</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4</strong> TVET institutions in my location are poorly equipped in terms of teachers and equipment which discourages enrollment of students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5</strong> There is limited awareness about the importance of TVET making most students to lack information that could have boosted enrollment in these institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6</strong> TVET graduate are jobless, poor and don’t wear nice cloths like suits and don’t look smart</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7</strong> TVET courses involves hard labour and a lot of sweating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. In your opinion, how are physical facilities in your college?

(i) Adequate [ ]

(ii) Inadequate [ ]

10. In your own view, what can be done to increase enrolment to Youth Polytechnics?

............................................................................................................................
............................................................................................................................
............................................................................................................................
............................................................................................................................
Appendix C: Managers Questionnaire

This questionnaire has been designed to identify factors influencing access to Youth Polytechnics in Bungoma East. Kindly fill this questionnaire as accurate as possible and DO NOT indicate your name.

PART I: PERSONAL INFORMATION

1. What is your gender?
   (i) Male [ ]
   (ii) Female [ ]

2. Where does your age lie?
   (i) 30-35 [ ]
   (ii) 36-40 [ ]
   (iii) Over 40 [ ]

3. What is your Professional qualification?
   (i) Dip. Tech. ed) [ ]
   (ii) B.Ed.[ ]
   (iii) Untrained [ ]

4. What is the enrolment in the institution?
   (i) When you took over
      (a) Male………..
      (b) Female………..
   (ii) Currently
(a) Male…………

(b) Female…………

5. Rate the current enrolment?
   (i) Adequate[]
   (ii) Not adequate []

6. If your response in 8 above is (ii), what could be the reasons for it?

7. What influences parents failure to enroll their children in your college?

8. How do you rate the quality of teachers in your institution?

9. Does the college have enough facilities commensurate to the number of students enrolled?
   (i) Yes [ ]
   (ii) No [ ]

10. In your own opinion, what measures can the government take to increase enrolment in YP institutions? ………………………………………………………………………
Appendix D: Principals interview

Preclude: (After introduction)

I must appreciate you for granting me this chance to enquire from you the possible challenges hindering student access to Technical Vocational Education and Training. I assure you that your personal identity is not necessary and won’t be publicized. The exercise is to help find solutions to the topic “The challenges hindering student access to technical and vocational education and training in Kenya” with reference to Bungoma East sub-county, a dissertation assignment for a master in Economics of education degree.

1. How do you assess student’s willingness to join Technical Vocational Education and Training in Bungoma East?

2. What roles to parents/guardians play in influencing their choice into Technical Vocational Education and Training courses?

3. In your own view, how do you rate the community’s participation in the institutions academic and non-academic programs? Any reasons to that effect?

4. What subjects does the institution offer?

5. Which courses are/are not popular to students and why?

6. Does the institution have enough teaching and support staff to implement Technical Vocational Education and Training curriculum?

7. How do rate your teaching and support staff in terms of competence
8. Is the number of teaching staff per subject adequate? If NO, what could be the reasons behind it?

9. Does the institution have any equipment to carry out practical lessons? IF YES, which ones and in which areas of study?

10. How adequate and serviceable are the equipment available for practical lessons?

11. In your own opinion, what are the efforts of stakeholders in enhancing access of Technical Vocational Education and Training in this institution?

Thank you for granting me the interview.
Appendix E: Interview with Youth Sub-County Officer

Prelude: (After introduction)

I must appreciate you for granting me this chance to interview you the possible factors influencing student access to Technical Vocational Education and Training. The exercise is to help find solutions to the topic “The factors influencing access to technical and vocational education and training in Bungoma East sub-county, a dissertation assignment for a master in Economics of education degree.

1. How do you assess student’s willingness to join Technical Vocational Education and Training?

2. What role does career opportunity expectation play in influencing their choice into Technical Vocational Education and Training courses?

3. Please commend on the enrolment of males and females in Youth Polytechnics?

4. In your own view, how do you rate the community’s participation in the institutions academic programmes? Any reasons to that effect?

5. What is the state of physical facilities in youth polytechnics?

6. Which courses are/are not popular to students and why?

7. What strategies have you put in place to improve the facilities of Youth Polytechnics to enhance access?

8. What other information other than what we have discussed would you like to share concerning access to youth polytechnics?
Appendix F: Direct Observation Sheet

The researcher observed and kept a record on the state of teaching and learning resources in the institution as shown below:

<table>
<thead>
<tr>
<th>No</th>
<th>Facility</th>
<th>Adequate</th>
<th>Not enough</th>
<th>Enough</th>
<th>More than enough</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Classrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Workshops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i) Carpentry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ii) Computer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Farming land</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Farm structures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i) Beehive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) Traditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Modern</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ii) Demonstration fields</td>
<td></td>
<td></td>
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<td>(iii) Storage structures</td>
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<td>Farm machinery</td>
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<td>(i) Tractors</td>
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<td>(ii) Ox-plough</td>
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<td>(iii) Tools</td>
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<tr>
<td></td>
<td>(a) Jembes</td>
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<td>(b) Pangas</td>
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<td>(c) Slashers</td>
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<td>(iv) Yokes</td>
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<td>(v) Mowers</td>
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<td>6</td>
<td>Staffroom</td>
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<td></td>
<td>(a) Furniture’s</td>
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<td>(i) Chairs</td>
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<td>(ii) Tables</td>
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<td>(b) Television set</td>
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<td>7</td>
<td>Home science room</td>
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<tr>
<td></td>
<td>(i) Sewing machines</td>
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<td>(ii) Cooking jikos</td>
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<td></td>
<td>(iii) Fridges</td>
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</table>
Appendix G: Time Schedule

<table>
<thead>
<tr>
<th>TIME FRAME</th>
<th>ACTIVITY</th>
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<tbody>
<tr>
<td>June – October</td>
<td>Proposal writing</td>
</tr>
<tr>
<td>December-January</td>
<td>Piloting and testing the instruments</td>
</tr>
<tr>
<td>February-June</td>
<td>Data collection</td>
</tr>
<tr>
<td>July-August</td>
<td>Data analysis and report writing</td>
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</table>
### Appendix H: Research Budget

<table>
<thead>
<tr>
<th>No</th>
<th>Item/Activity</th>
<th>Amount (Shs)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Typing &amp; printing</td>
<td>9150</td>
</tr>
<tr>
<td></td>
<td>Photocopying services</td>
<td>6700</td>
</tr>
<tr>
<td>3</td>
<td>Data collection</td>
<td>3500</td>
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<tr>
<td>4</td>
<td>Stationery</td>
<td>3500</td>
</tr>
<tr>
<td>5</td>
<td>Permit collection</td>
<td>6000</td>
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<tr>
<td>6</td>
<td>Miscellaneous and contingencies 15%(1,2,3,4&amp;5)</td>
<td>9050</td>
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<tr>
<td></td>
<td>GRAND TOTAL</td>
<td>69400</td>
</tr>
</tbody>
</table>

Appendix I: Research Permit

THIS IS TO CERTIFY THAT:

MR. BENEDICT MANGO KITUI of UNIVERSITY OF NAIROBI, 92-902 Kikuyu, has been permitted to conduct research in Bungoma _County_

on the topic: FACTORS INFLUENCING ACCESS TO TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING IN BUNGOMA EAST SUB COUNTY, KENYA

for the period ending 31st December, 2015

Upon payment of a fee of Ksh 1,000-

Authorised by:

Director General

National Commission for Science Technology & Innovation

CONDITIONS

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

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

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

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

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

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

National Commission for Science Technology & Innovation

RESEARCH CLEARANCE PERMIT

CONDITIONS: see back page
Appendix J: Authorization Letter

NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacost.go.ke
Website: www.nacost.go.ke
When replying please quote

Ref. No.

NACOSTI/P/15/8034/5569

Date: 15th April, 2015

Benedict Mango Kitui
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Factors influencing access to Technical and Vocational Education and Training in Bungoma East Sub County, Kenya” I am pleased to inform you that you have been authorized to undertake research in Bungoma County for a period ending 31st December, 2015.

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

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

DR. M. K. RUGUT, PhD, BSc.
DIRECTOR-GENERAL/CEO

Copy to:
The County Commissioner
Bungoma County.
The County Director of Education
Bungoma County.

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION.

The bearer of this letter, Mr. Benedict Mango Kitui a student of University of Nairobi, sought an authority to carry out a research on "Factors influencing access to Technical and Vocational Education and Training in Bungoma East Sub County, Kenya" for a period ending 31st December, 2015.

The authority is hereby granted to him and any assistance accorded to him in that pursuit would be highly appreciated.

J.O.Awuor
For COUNTY COMMISSIONER
BUNGOMA COUNTY
When Replying please quote
e-mail: bungomacde@gmail.com

County Director of Education
P.O. Box 1620-50200
BUNGOMA

Ref NO: BCE/DE/19/VOL.1/133

Date: 20th April, 2015

THE SUB – COUNTY DIRECTOR OF EDUCATION
BUNGOMA EAST

RE: AUTHORITY TO CARRY OUT RESEARCH – BENEDICT MANGO KITUI
ADMISSION NO ESS/75298/2012

The bearer of this letter Mr. Benedict Mango Kitui is a Student of University of Nairobi.

He is given authority to carry out research on “Factors influencing access to Technical and Vocational Education and Training in Bungoma East Sub – County, Kenya” for a period ending 31st December, 2015.

Kindly accord him the necessary assistance.

NICHOLAS OYUCHO
FOR: COUNTY DIRECTOR OF EDUCATION
BUNGOMA COUNTY