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**INFLUENCE OF ADEQUACY OF TEACHING AND LEARNING RESOURCES ON  
STUDENTS' ENROLMENT IN TECHNICAL, VOCATIONAL EDUCATION AND  
TRAINING INSTITUTIONS IN BUTULA SUB-COUNTY, BUSIA COUNTY**

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**ABSTRACT**

The purpose of the study was to investigate the influence of adequacy of teaching and learning resources on students' enrolment in technical, vocational education and training institutions in Butula Sub-county, Busia County. The study used descriptive design of the case type. The study target population comprised of 3 principals, 101 tutors and 661 students from all the technical institutions in Butula Sub-County. The researcher purposive selected the 2 youth polytechnics and the technical institution. Three principals were selected through census and sample of 30 tutors selected through stratified proportionate random sampling, 135 students were systematically selected from the youth polytechnics. The study used questionnaires and interviews as the research instruments. Quantitative data was analyzed by use of descriptive statistics. Qualitative data generated from interview schedules and open ended questions was organized and analyzed into themes, categories and patterns pertinent to the study. The study found that adequacy of teaching staffs influences student enrolment at TVET institutions. Adequacy of training resources influences student enrolment at TVET institutions. Adequate and qualified human resource provision to TVET Institutions should be made a key priority by National and County governments.

**Keywords:** *Adequacy of Teaching and Learning Resources, Student Enrolment Rates*

## INTRODUCTION

Education is recognized as a fundamental pillar of human rights, democracy, sustainable development and peace. Therefore governments and households alike, invest massively to ensure that education becomes accessible to all throughout life so that society reaps the maximum benefits of investing in education. Indeed, the numerous studies on the benefits on education have consistently found positive social and private returns to education at all levels. In Kenya policy documents have identified provision of accessible, quality and relevant education as a key foundation for spurring development and social cohesion. The Kenya vision 2030 emphasizes the need to provide critical skills required to drive the various sectors of the economy (Rok 2005).

The sessional paper no 1 of 2005 on education and training classified education and training in Kenya into three distinct levels, basic education, Technical and Vocational Education and Training (TVET) and University Education. Basic education covers primary and secondary education, University education covers degree awarding institutions while TVET covers all the vocation and technical training institutions (MOHEST, 2012). TVET is targeted to impart technical and vocational skills which are expected to impact on employment, poverty reduction and by extension social cohesion to all.

The African Union in its Plan of Action for the Second Decade of Education for the period 2006 – 2015 recognises the importance of TVET as a means of empowering a high number of individuals to take control of their lives and recommends the integration of vocational training into the general education system. The Kenya government has therefore given attention to provision of TVET through increased resource allocation and institutional reforms to make it attractive with ability to realise high enrolments.

According to UNESCO,(2003) Technical and Vocational Education and Training is defined as all forms and levels of the educational process involving in addition to general knowledge, the study of technologies and related sciences and the acquisition of practical skills, know-how, attitudes and understanding relating to occupations in various sectors of economic and social life. It is always seen that TVET is a second choice, and students who sign up to vocational schools are those with lower achievements (UNEVOC; UNESCO 2006). For this matter, courses being offered to students, competent training staff, adequacy of teaching, learning and training

resources and the attitude of the students towards vocational Education, are among the factors that contribute to increase or decrease of students who choose to enrol in TVET institutions.

King (2013) states that, hands on courses results to economic development and wellbeing of people. In Kenya, enrollment in science, mechanical and technological related courses at TVET institutions is low (Simiyu 2007). For instance, the youth polytechnics in Kericho, Bureti and Bomet districts can accommodate approximately 4500 students every year. The enrolment for the years 2001, 2002, 2003, and 2004 was approximately 1900, 1620, 1400 and 1378 respectively (DATO, Kericho, 2005). This gives an average enrolment of approximately 28 %. There has been a persistently low enrolment as revealed by the data in reference. According to Nyerere, (2009), TVET institutions that offer advanced courses like mechanical, electrical and civil engineering, business administration and ICT tend to have high enrollments.

In this sector, instructors need first-hand industrial experience. In most cases, however, they have little or no contact with the work place or with new technologies. Thus, they rarely have the possibility of updating their stock of knowledge. Some countries have taken measures to make teachers aware of the new technologies and the new skills, which will be required of when they enter the labor market. Many students who will see such progress will admire to enroll in TVET institutions hence increasing the enrolment.

Inadequacy of resources is the other factor influencing student enrollments in TVET institutions, (Nyanjom 2013). There is need for enough resources in any TVET institution of the world to be improved for them to attract high enrollments. According to the global perspectives on recognizing non-formal and formal learning, it is argued that human resource is an important factor to attract high enrollments in TVET institutions, (Simiyu 2007; Sen 1993); A TVET institution with industrial partners offering scholarship to outstanding students who excelled in their studies will result to high enrolments compared those that depend on students self sponsorship (UNEVOC; UNESCO 1996) In Africa, the implementation of TVET curriculum in Nigerian tertiary institution has been faced with such issues as poor funding; obsolete facilities and poor provision of instructional materials for effective implementation of the TVET, Isele and utagba technical colleges of the delta state of Nigeria are well funded and have enough physical facilities and instructional materials hence attract high enrolments every year, (Ojimba 2012). In Kenya, infrastructure and facilities have been created and staff trained on infrastructural systems through donor assistance, (UNEVOC, 1996). It is argued that, though most donors provide

financial resources for capital costs, it is limited and for short periods. This has made most students not to be attracted to technical and vocational education and training hence low enrolments.

The other factor influencing enrolments in TVET institutions is the traditional attitudes of the people. Globally, TVET courses are perceived to be for individuals with low qualifications. For instance, in Pakistan, TVET is generally considered as the choice of the academically weak and of those of low economic and social classes of the society. This poor image contributes to low interest hence low enrolments. Same is the case at Victoria in Australia (Samodra 2007; UNESCO 2009). On the other hand, in areas where people's attitudes are positive, TVET is perceived as the stepping stone to progress. For example in Japan and Korea, the status of TVET has been improved by upgrading technical colleges, to offer technical or skill degrees. This has resulted to production of graduates who respond to rapidly changing technological development. This raises demand for TVET institutions, (wheelahan and carter 2001). TVET has been associated to poor school achievers, while general public perceives that, it leads to producing graduates who will be working in "dirty" blue collar jobs (Kerre, 2006; Tum 2006). This has triggered the low social status and negative perception of technical and vocational training in Africa, leading to low enrolments. Okocha (2009) revealed that, parents recognize the employment value inherent in vocational education. However, they still value prestigious white collar professions over technical related occupations. In Kenya, the negative attitude dates back to colonial history, when academic education was perceived to have a higher social status than vocational education, (Bogonko, 2012). Vocational education introduced in Kenya before independence helped its graduates to perform subordinate tasks while foreigners supervised them. This created negative attitudes thus, few students opt for vocational education especially in rural areas hence low enrolments.

### **Statement of the problem**

Kenya has made great strides in the improvement of Technical vocational education and training since 1963. This is shown by the growth in the number of institutions, increased enrollments, transition rates, and numbers of instructors and enhancement of equity, gender parity, increased relevance and quality, (Mackay Report, 1981; Kamunge 2008), Despite these successes, TVET sector suffers challenges arising from demands of the 21<sup>st</sup> century, vision 2030 and the Kenya constitution (2010) RoK,(2005). MOEST (2008), announced release of TVET Bursary for

students in public technical, vocational and training institutions under the Ministry with focus to youths from poor households, orphans and youth with special needs who may be financially disadvantaged to enroll in these institutions. However this has not been so effective in increasing the enrolment rate compared to the government's aim of Vision 2030 to increase the transition rates to technical colleges and higher education to 80%.

Sessional paper No.14 of 2012 now seeks to strengthen Technical Education and Training policies in Kenya by designing them to provide important alternative education and training for the majority of unemployed youths in the country and to meet enough workforces relevant in achieving the objectives of the vision 2030. However, this may not be achieved due to low enrolment of students. The government of Kenya through its Commitment to upgrade re-brand and re-furbish TVET infrastructure to improve learning environment in TVET institutions as stated in MOEST 2014; Daily nation 4<sup>th</sup> April 2016, has seen to bear no fruits on the enrollment in this institutions. This study therefore s to fill this gap by investigating the extent adequacy of teaching and learning resources influence student enrollments in TVET institutions in Butula sub- county, Busia County.

### **Purpose of the study**

The purpose of the study was to investigate the extent to which adequacy of teaching and learning resources at the TVET institutions influence student enrolment rates.

## **LITERATURE REVIEW**

### **The trends of enrolments at TVET institutions of Kenya**

The historical trend of enrolments at TVET institutions of Kenya has greatly contributed to the developments of TVET systems in the country. This is seen through curricular and structural changes that have had a great impact on graduates from the TVET institutions. According to Okaka, (2001), increased enrolments in TVET institutions were realized during the Second World War, after the introduction of more sophisticated machinery among Kenyans. It is by this time that peoples' attention begun to focus on student enrolments at TVET institutions. Out of the approximate 600,000 graduates from primary schools, (200,000) are expected to be catered for by TVET institutions whose existing capacity is inadequate (GoK, 2006; 2007).

The Gender Policy in Education, (2013) indicates that, enrolment in public TVET institutions increased from 40,622 in 1999 to over 66,500 in 2004, with females constituting 49.1 percent of the total enrolment. However, female students' enrolment has been highest in youth polytechnics and lowest in national polytechnics. In 2007, the enrolment in TVET institutions increased by 7.5%; from 71,167 (2006) to 76,516 (2007). These historical trends have helped to check the enrolment states in TVET institutions in order to decide on the need for expansion or not.

According to Ngerechi (2003), expansion of TVET institutions is a potential offer for further training and education to both primary and secondary school graduates. TVET also aims at implementing the Kenya vision 2030. As a social pillar it is meant to strengthen the education and training sector. The vision proposes intensified application of science, technology and innovation to raise productivity and efficiency through establishment of new technical institutions (RoK 2012; Kamunge 1988, Nyerere, 2009). It is therefore important to understand the historical trends of students' enrolments in TVET institutions in order to put necessary measures to control the decline by assessing the factors that influence students' enrolment at the TVET institutions.

### **Influence of teaching and learning resources on student enrolments at TVET Institutions**

Availability of resources, facilities and equipments are fundamental in provision of quality and relevant education in TVET Institutions. It is through quality training that gets the desire to join a TVET institution with assurance of coming out successful. Well-equipped TVET institutions gives this assurance to students hence increasing the demand that eventually raises student enrolments. Nyanjom (2012) and UNESCO( 2012) noted that, the determinants of the quality of Education and training include among others the quality of teachers learners, learning environment, facilities for learning and curricular organization. UNESCO, (2000) affirms that availability of a range of teaching and learning resources is crucial in facilitating teaching and learning process globally.

According to International Labour Organization (ILO) (2012), inadequate financial resources, lack of physical facilities like accommodation/hostel facilities and inappropriate training environment are key barriers to female participation in TVET education in Bangladesh. Technical institutions with inadequate supply of materials, large class sizes, inadequate training

facilities, weak linkages with local industries for hands -on-experience for both instructors and trainers lead to ineffectiveness and inefficient training of students hence decline in student enrolment is seen.

There is need for TVET in developing countries to have proper tools, equipment to be used in vocational training by instructors, trainers and teachers to keep up with skills of changing times if there is hope to increase enrollment in TVET institutions In Nigeria, Egwu (2009) posited that, among the major hindrances on students' choice in favour of TVET institution is inadequate and obsolete infrastructure and equipment. For instance poorly equipped TVET workshop and Libraries, dilapidated classroom blocks keeps a way the interest of students. However, Odoka, (2010); opined that inadequate financial resources is the key barrier to student enrollment in Technical education and training institutions as pertains curriculum implementation. Nyerere, (2009) noted that well established TVET institutions increase human resource so that instructors have classes that they manage without straining.

### **Theoretical Framework**

The study was based on the goal setting theory as coined by Joyce, Weil and Calhoun (2003). The concept of learner characteristics is an important dimension that influences how we structure, prepare and implement programmes in Technical and vocational Education. (Thomson 1973). Thomson explained that managers must have purposeful goals. Joyce, Weil and Calhoun's, (2003) theory contends that goal setting is an effective way of increasing motivation and performance. Goals direct both mental and physical actions of an individual. In this theory, four goal mechanisms are explained to show positive effects of goals in action; Goals increase attention to immediate task; effort exerted on activities; persistence, motivation and performance through development of specific strategies. The feedback given by these goal mechanisms in the theory will help in evaluating the progress of the programme to see whether effort can be increased or change the strategy. Aspects of increased persistence and increased motivation and performance as highlighted in the theory to be pertinent and relevant to how a model TVET institution could emulate to positively change the states of enrollments.

### **RESEARCH METHODOLOGY**

The study used descriptive design and the target population included all principals, tutors and students of technical institutions in Butula Sub-County. The researcher used 30% of the target



population because this percentage was able to represent population characteristic under investigation. The questionnaires and interview schedules designed by the researcher were the research instruments. Quantitative data was analyzed by use of descriptive statistics such as frequencies, and percentages. Qualitative data generated from interview schedules and open ended questions was organized and analyzed into themes, categories and patterns pertinent to the study. Inferential statistics such as correlation analysis was also used to determine the relationship between adequacy of teaching and learning resources and student enrolment.

## RESULTS

### **Influence of adequacy of teaching and learning resources at the TVET institutions on student enrolment rates**

The students were asked to state which of the resources and facilities attracted the students to enroll in the institution. The findings are shown in Table 1

**Table 1: Resources and facilities that attract students to enroll**

	<b>Frequency</b>	<b>Percentage</b>
Human resources	61	34.9
Financial resources	78	44.6
Physical facilities	36	20.6
<b>Total</b>	<b>175</b>	<b>100.0</b>

From the findings, most of the respondents as shown by 44.6% indicated financial resources, 34.9% indicated human resources while 20.6% indicated physical facilities.

The students were asked to state which resources and facilities affect student enrolment in the institution most. The findings are presented in Table 2.

**Table 2: Resources and facilities and student enrolment**

	<b>Frequency</b>	<b>Percentage</b>
Human resources	37	21.1
Financial resources	49	28.0
Physical facilities	89	50.9
<b>Total</b>	<b>175</b>	<b>100.0</b>



From the findings, majority of the students (50.9%) indicted physical facilities, 28% indicated financial resources while 21.1% indicated human resources. This shows that physical facilities affect student enrolment in the TVET institutions most.

The tutors were asked to state whether adequacy of training resources influences student enrolment at TVET institutions. Table 3 presents the findings.

**Table 3: Adequacy of training resources influences student enrolment**

	<b>Frequency</b>	<b>Percentage</b>
Strongly agree	9	33.7
Agree	17	62.9
Do not agree	1	3.4
<b>Total</b>	<b>27</b>	<b>100</b>

From the study findings, majority of the tutors (62.9%) agreed that adequacy of training resources influences student enrolment at TVET institutions, 33.7% strongly agreed while 3.4% did not agree. This implies that adequacy of training resources influences student enrolment at TVET institutions.

The study requested the Principals to state how adequacy of teaching and learning resources influences student enrolments in technical and vocational education and training in their institution. The principals stated that lack teaching and learning resources in reduce the enrolment rate in the institutions. The Principals as well confirmed that some courses lack adequate teaching and learning resources in the institution.

The study requested the tutors to state sufficiency of training equipment in the TVET institutions. The findings are shown in Table 4.

**Table 4: Tutors' assessment of quantity of training equipment**

<b>Assessment</b>	<b>Frequency</b>	<b>Percentage</b>
Quite sufficient	2	6.7
Sufficient to some extent	6	23.6
Insufficient	17	61.8
No equipment	2	7.9

<b>Total</b>	<b>27</b>	<b>100.0</b>
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From the study findings, majority of the tutors (61.8%) indicated that quantity of training equipments is insufficient, 23.6% indicated sufficient to some extent, 7.9% indicated there was no equipment while 6.7% indicated quite sufficient. This implies that quantity of training equipments was insufficient.

The study asked the tutors to evaluate the usability of the training equipment. The findings are shown in Table 5.

**Table 5: Evaluation of usability of training equipments**

	<b>Frequency</b>	<b>Percentage</b>
Well qualified	2	7.9
qualified to some extent	8	30.3
some is working	15	53.9
no equipment	2	7.9
<b>Total</b>	<b>27</b>	<b>100.0</b>

From the study findings, majority of the tutors (53.9%) indicated that some of the training equipment are working, 30.3% indicated qualified to some extent while 7.9% indicated well qualified and no equipment in each case. This implies that some training equipments are working.

The study request the tutors to rate the availability of training materials in the institutions. The findings are as shown in Table 6.

**Table 6: Availability of training materials in the institution**

	<b>Frequency</b>	<b>Percentage</b>
Very adequate	1	4.5
adequate	4	14.6
inadequate	18	68.5
unavailable	3	12.4
<b>Total</b>	<b>27</b>	<b>100.0</b>

From the study findings, majority of the tutors s shown by 68.5% indicted that it was inadequate, 4.6% indicted it was adequate, 12.4% indicated it was unavailable while 4.5% indicated it was very adequate. This implies that the availability of training materials in the institution was inadequate.

The study requested the tutors to state how availability of training materials in the institutions affects student enrolment in TVET institution. The findings are shown in Table 7

**Table 7: Effect of availability of training materials on student enrolment**

	<b>Frequency</b>	<b>Percentage</b>
Increase	2	7.9
decrease	20	75.3
No effect	5	16.9
<b>Total</b>	<b>27</b>	<b>100.0</b>

From the study findings majority (75.3%) of the tutors indicated that it decreases student enrolment in TVET institution, 16.9% indicated it has no effect while 7.9% indicated it increases students' enrolment. This implies that inadequate training materials in the institution decreases student enrolment in TVET institution.

The study found that adequacy of training resources influences student enrolment at TVET institutions. The quantity of training equipments was insufficient even though some training equipments are working. From the findings, the availability of training materials in the institution was inadequate. The inadequate training materials in the institution decreases student enrolment in TVET institution. The study also found that physical facilities affect student enrolment in the TVET institutions most. Similarly UNESCO (2012) noted students enroll in institutions which offer quality education which is dependent on adequate training resources. Availability of resources, facilities and equipments are fundamental in provision of quality and relevant education in TVET Institutions. It is through quality training that gets the desire to join a TVET institution with assurance of coming out successful.

### **Correlation analysis**

The researcher conducted a Pearson correlation between factors influencing students' enrolment rates in technical, vocational education and training institutions and students' enrolment in technical, vocational education and training institutions in Butula Sub-county, Busia County. Table 8 presents the correlation coefficients.

**Table 8: Correlations**

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students' enrolment	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	175		
adequacy of teaching and learning resources	Pearson Correlation	.864**	.214	1
	Sig. (2-tailed)	0.001	0.353	
	N	175	175	175

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From the findings on the correlation analysis, there was a strong positive relationship between adequacy of teaching and learning resources and students' enrolment as shown by a correlation coefficient of 0.864. This implies that an increase in teaching and learning resources is associated with an increase in students' enrolment and a decrease in teaching and learning resources is associated with a decrease in students' enrolment.

### **Conclusion**

Adequacy of teaching staffs influences student enrolment at TVET institutions. The teaching staff in the TVET institutions decreases the students' enrolment since it is not adequate. Adequacy of training resources influences student enrolment at TVET institutions. The inadequate training materials in the institution decreases student enrolment in TVET institution.

### **Recommendations**

The National and County governments should provide adequate and qualified human resource provision to TVET Institutions. The national and county governments should also ensure that more funds are allocated to TVET Institutions to enable them acquire adequate and modern facilities to provide quality training.

Principals should be given some professional training in administrative processes. These will uplift the standards of the student training.

Future studies should determine what initiatives that Kenya Association of Technical Training Institute (KATTI) are putting in place to boost enrollment in technical courses in the institutes.

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