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Influence of Teaching-Learning Resources on Transition Rates of Diploma Students at Ramogi Institute of Advanced Technology, Kisumu County, Kenya

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Abstract:

Technical and Vocational Education and Training represents a significant feature of education and training provision through which both continuing and training requirements are met. It attempts to straddle the needs of lifelong education and training as well as the immediate requirements of the work place. Favorable attitude towards institutions physical facilities and quality teaching learning resources promote transition in Technical and Vocational Education and Training. On this backdrop most states and governments, Kenya government included are pursuing the aspect of development to ensure achievement of national development goals of education. The study aimed at establishing factors influencing students' transition rate in Ramogi Institute of Advanced Technology, Kisumu County. The study was guided by the following objectives: to assess the extent to which funding influences students' transition, to establish how buildings and classrooms influence students' transition to investigate the cost of teaching- learning materials and its influence on students' transition and to assess how students' welfare and sanitation facilities influence students' transition. Descriptive survey was adopted for the study. Stratified sampling design was used in the selection of respondents. Purposive sampling technique was used to sample the registrar and heads of departments. All the collected data was edited and coded to eliminate any errors that may be made by respondents. Descriptive statistics such as frequencies and percentages were used to describe data using tables. The study found out that the transition rate of students in was very low. Up to 51.19% of the students failed in their KNEC examinations and therefore, failed to transit to graduation. The factors that caused this state of affairs were; inadequate and unreliable funding of the students' education which accounted for up to a 58.06% dropout rate. Expensive and numerous teaching-learning materials that the students were expected to buy contributed to up to 82.81% transition rate. Although the state of institutional buildings and classrooms, adequacy of furniture and comfort ability rated 48.38% below average, they had no effect on students' transition. The study revealed that funding and teaching-learning- materials were significant factors on students' transition rates and they contributed to up to71.06%. The study recommends that the administration should seek to undertake income generating projects such as agricultural projects to mobilize funds for development. The study also recommends that, the institution buys its own teaching and learning materials that very needy students can use rotationally and lastly the study recommends that, the institution mobilizes stakeholders to assist in improving the welfare of the students by increasing the number of classrooms, have adequate teaching and learning materials, provide adequate and good furniture and improve the state of sanitation facilities. The study suggests that, similar studies should be done in other TIVET institutions in other provinces so as to compare with the findings of this study. The study also suggests that, future researchers should explore the contribution of institution personnel on the poor transition rate from third year to graduation. The study further recommends that, future researchers should carry out similar study with an introduced emphasis on the contribution of students' discipline.

1. Background of the Study

Technical and Vocational Education and Training has emerged as one of the most effective human resource development strategies that many countries worldwide have embraced in order to train and modernize their technical workforce for rapid industrialization. Technical and Vocational Education and Training (TVET) targets those occupation which centre on the application of technical and vocational skills to the world of work. These technical skills can only be acquired by providing a conducive teaching and learning environment that is equipped with relevant and adequate teaching-learning resources to enhance trainees' hands-on experience.

A conducive teaching and learning environment for acquisition of skills is a sentiment supported by Myers and Jones (1993) who observed that active learning environment enables students to talk, listen, write, and reflect as they approach course content through problem solving and critical thinking. A report on different occupation in the world by UNESCO; UNEVOC (2006) observed that about 80% of all occupations worldwide are of TVET type. Therefore the development of TVET and other related skills is important for sustainable development. After all a country's competitiveness is related to the quality of product it produces while worker competence is a decisive factor for natural economic development. However, TVET has fuelled phenomenal economical growth in some countries and fallen short of expectations in others (ADB/OECD, 2008).

In the USA, about 50% of the institutions experience environment problems that are obstacles to teaching and learning of students. This include water, old damaged classrooms, ineffective sanitary among others. A study carried out by Okorie and Uche (2004) on the effect of education facilities on teaching-learning process also observed that these facilities and environment portray the quality of the institution in terms of staff, students, friendliness, attraction to outsiders, safety, aesthetic and relevance. Educational facilities contribute directly or indirectly to teaching and learning process in the educational system. Although the Local District in the USA has the responsibility of providing the physical facilities in institutions, teachers and students have found themselves in physical environments that adversely affect their morale and in some cases, their health and physical safety. Since the funds to implement the exercise are not made available, the districts have to rely on taxpayer's ability or willingness to help meet capital expenses hence glaring inequities in institution environment among districts with different economic bases (Berry, 1993, 2002).

Poor institution environment prompted a national survey which was conducted by the American Association of Institutions Administrators. The survey found out that 74% of the institution facilities should be replaced or repaired immediately and another 12% were inadequate for teaching and learning (Hansen, 1992). However, Massachusetts Institute of Technology (MIT) has one of the best accommodation arrangements for its TVET students which include those students with disabilities. Reasonable accommodation for disabled students is provided in order to balance the interest of the students with those of the institute. It ensures that students' requests are considered in a manner which is both expedient and effective. The institution realizes that unless students are comfortable then learning will not be effective. Accommodation is also offered at exam time to facilitate students' easy access to technology facilities, shopping, public transport and recreational option although it is subject to review.

The Peoples Republic of China (PRC) has embraced TVET for development and its funding scheme for TVET is one of the most expensive undertakings in the world whose total fee paid of about \$ 292.74 per year add up to half the annual income of many households in the country. To counter TVET requirement, the government has offered a number of support schemes to TVET students. One scheme caters for boarding and lodging for students from humble backgrounds as well as limited number of poor students from urban areas. The other scheme targets the poor families whose tuition fee is waived. Since the cost of providing teaching learning materials in subjects such as; mechanical Engineering and digital arts is high. The government charges higher fees for their provision of about \$439.11_\$731.85 per year than that of general secondary institutions to which able families prefer to send their children. The fee often exceeds the actual recurrent cost per student per year presumably to cater for capital investment (ADB/OECD, 2008). Through this provision the government has seen better acquisition of skills and high retention of students in institutions.

The Ghanaian government in its effort to include vocational subjects in general education, established a Council for Technical and Vocational Educational and Training (COTVET) by an Act of parliament under the Ministry of education to oversee all TVET activities. COTVET is expected to address the issues of multiplicity, oversight responsibility and testing standards of TVET system in which the government has pledged full responsibility in provision of teaching learning resources for the first year of apprenticeship training. Through this government's provision the institutions are supplied with educational facilities that ensure production of high skilled graduates that meet the needs of the labor market (Johansson and Adams, 2007).

Similarly, the government of Tanzania has given the overall responsibility of coordinating Vocational education and training to Vocational Education and Training Authority (VETA). The concept involves integration of technical and managerial skills programs and funds local providers through the provision of teaching learning resources to implement the new training approaches for the informal sector. The attempt to link up trainees with credit and business development providers has also improved quality of goods and services produced by informal sector hence an increase in sales and profit (ADB/OECD, 2008).

In Kenya, the provision of educational opportunities to all children has been the government's plan for Economic Recovery Strategy (ERS) and Poverty Reduction Strategy (PRS). One of the highest priorities of the two strategies has been to collaborate with development partners in providing additional learning facilities. A position very well supported by Koech, (1999) and Kamunge (1988) that underscores learning infrastructure as a component of quality education. This approach was necessitated for the Kenyan population of about 46% that lives in absolute poverty as observed by the National Economic Survey Statistics (NESS 2005 - 2006) Therefore there is need for heavy subsidy from government and financial support for bursary and scholarships for this segment of population to access this TVET (TVET, 2007).

However, low budgetary allocation for TVET sector in Kenya, contradicts the prioritization of TVET as a vehicle for industrialization as indicated in Kenya Vision; 2030. Studies carried out by Okeno (2011) on institution infrastructure and students' achievement in public secondary institutions in Rachuonyo North District posit that, infrastructural conditions in Kenya create hurdles to quality education and forms barriers to retention. Most of the institutions do not meet the basic standards of health and use of sustainable methods is marginal. Most TVET institutions in Kenya are community-based organizations. These leaves the Youth polytechnics (YPs) and Institutes of technology (ITs) to grapple with run down physical facilities' and obsolete equipments due to lack of funds. The issue whether or not a relationship exists between Technical and Vocational Education and Training and teaching and learning resources at Ramogi Institute of Advanced Technology (RIAT) Kisumu, County, constitute the problem of this study.

1.1. Statement of the Problem

Training for quality skills, require appropriate training equipment and tools, adequate supply of training materials, supply of relevant text books, training manuals, qualified staff and practice by the students (IFAD, 2006). However teaching learning resources in Ramogi Institute of Advanced Technology lacked adequacy which in a way or the other affected teaching and learning of students hence less transition. The institution's report on students' enrolment in different diploma courses offered showed that very few students started and completed their three year courses as scheduled and the few who managed to complete the three year course did not perform well in their Kenya National Examinations (KNEC). From the year 2006 – 2012, For instance; the number of students who undertook electrical engineering course in 2008 was 24. The number increased to 29 in 2009 because of new admission of students who qualified for the course from the craft class in 2008. However this number reduced further to 17 on registration of the final exam (KNEC). Out of 17 candidates, no student passed, 4 (33.5%) were referred and 13 (76.5%) failed. The same trend was realized in subsequent years.

The same trend was realized in enrolment of students in similar disciplines in Kaimosi Technical Institute. Preliminary study revealed that at the beginning of the course, a big number of students enroll for different courses in the institution but the number reduces further towards completion of the three year course with minimal number of passes and several referred. However, the performance was slightly better than RIAT institute, which registered more fails and referrals. It was assumed that RIAT had adequate and well equipped teaching learning resources. The researcher intended to find out the number of students who enrolled in diploma courses in different disciplines against the number that qualified at the end of the three year course basing the percentage on their transition from year one to year three. For instance; of the students who enrolled in 2006; only 43(47.21%) managed to graduate, in 2007 enrolment, 78 (43.33%) managed to graduate and 82 (48.81%) graduated from 2008 enrolment. The percentage mean of transition was wanting and for this reason the researcher was interested in establishing what factors influenced transition rate of diploma students in RIAT. According to Schlossberg theory on transition (1984), adults react and adapt differently to transition. It was therefore, important to think about what institutions are or not doing to make environment inclusive to learning and the effectiveness of the established diversity of programmes in enhancement of students' transition. The researcher believed that investigating the influence of teaching learning resources on students' transition rate would help identify factors that could be manipulated to save the situation.

1.2. Purpose of the Study

The purpose of the study was to investigate influence of teaching and learning resources on transition rate of diploma students in Ramogi Institute of Advanced Technology in Kisumu County.

1.3. Objectives of the Study

The study was guided by the following objectives.

- 1. To assess the extent to which funding as an aspect of teaching-learning resources influence students' transition rate in Ramogi Institute of Advanced Technology.
- 2. To establish how institutional buildings and classrooms as an aspect of teaching-learning resources influence students' transition rate in Ramogi Institute of Advanced Technology.
- 3. To determine the extent to which cost of teaching and learning materials as an aspect of teaching-learning resources influence students' transition rate in Ramogi Institute of Advanced Technology.
- 4. To assess how students' welfare and sanitation as an aspect of teaching-leaning resources influence students' transition rate in Ramogi Institute of Advanced Technology.

1.4. Research Questions

The study addressed the following research questions;

- 1. To what extent does funding as an aspect of teaching-learning resources influence students' transition rate in Ramogi Institute of Advanced Technology?
- 2. How do institutional buildings and classrooms as an aspect of teaching-learning resource influence students' transition rate of in Ramogi Institute of Advanced Technology?
- 3. To what extent does the cost of teaching and learning materials as an aspect of teaching-learning resource influence students' transition rate in Ramogi Institute of Advanced technology?
- 4. How do students' welfare and sanitation as an aspect of teaching-learning resource influence students' transition rate of in Ramogi Institute of Advanced Technology?

1.5. Limitations of the Study

Ramogi Institute of Advanced Technology is about 3 km from the main Kisumu- Kakamega road. It is situated on a hilly, rocky area with rugged terrain that creates a lot of discomfort for travellers. The only means of public transport available is motorcycles. RIAT is a government institution and therefore, it is controlled by term dates that run for three months: January to March, May to August, and September to November. Since the institution remains closed during the months of April, August and December, the researcher ensured that data was collected when the students were on session. The researcher also used the motorcycles which were the only means of transport. Where motorcycles were not available the researcher had to trek to and from the institution. Many student respondents thought that by giving information about the institution would cause them problems. The research team however took time to explain to the respondents that the information they were going to provide would be treated with utmost confidentiality.

2. Literature Review

2.1. Funding, Fees and Students' Transition Rates

An important aspect of vocational training refers to its funding and it is costly. It is estimated that technical education costs more than ten times than the general secondary education per student in South Korea. (Middle and Demsky, 1989) while in China the unit cost was 50-100 percent higher in vocational and technical institution than in general secondary institutions (Daughterly, 1990). Mechanisms of allocation of resources in education do not favor TVET in many countries.

In Germany, the government has established a dual system of TVET which is governed by legislation under the Vocational Training Act. The dual system is a concept that is developed to match labor market needs with individual education and training in a mixed model of qualification. The system enables learning to take place in vocational institutions as well as in production facilities concurrently. The dual system is open to all young people and approximately 70% of all institution leavers aged 15-19 years train under this system (Johansson and Adams, 2007).

In all other countries except Botswana, Mauritius, Tanzania, Zambia and Namibia, TVET in Africa is spread over different ministries and organizations. In Egypt, TVET involves 22 ministries and agencies such as ministry of Education, ministry of labor and migration, ministry of production and Vocational Training department, ministry of Trade and Industry, Industry Training Centers among others. Adequate employee training is hardly offered by enterprises except a few on the job training for basic production skills. Because the government also lacks awareness of the benefit it stands to gain, only a small number of large local firms and transitional corporations allocate some resources for training budgets to be used in modern training methods. There are no government incentives to engage in training programs such as sharing cost or providing tax reductions for firms involved in training activities. This market failure could be handled through incentive schemes for in-house training, disseminating best training practices and awareness campaign on the benefits of training in improving efficiency and cutting costs (ADB/OECD, 2008).

Public expenditure on TVET in Africa has been remarkably low compared to general secondary education. Many OECD countries in Europe spent 11-18% of the total education expenditure on vocational Education. After all inadequate investments cannot produce higher returns (Tilak, 1988). Lowering of fees or abolishing it completely is intended to do away with discriminatory dual track option that is offered by a good number of institutions involving about 20000 students. The government of South Africa has each Sector of Education Training Authority (SETA) established and armed with substantial annual budget sourced from the private sector. In terms of this Act, the legislation allows for funds to be ploughed back into each economic sector through approved education and training program (Akoojee, 2007)

The TVET sector in South Africa has under gone considerable shift recently. The shift was prompted by the inclusivity emphasized by Further Education and Training meant to prepare young people for industry as well as focusing on the overall learning needs of people from the wider community. This combined initiative assisted in broader policy goals of reducing pressing social problems of income inequality, unemployment, and poverty (DoE, 1995; RSA, 1998; Gamble, 2008). FET supposedly brought together under one conceptual framework widely diverse groups of students and stakeholders as apprentices with experienced craftsmen (Akoojee, 2007). According to National Economic Survey 2005/2006 statistics up to 46% of the Kenyan population lives below absolute poverty with the high cost of providing TVET it is difficult for the segment of the population to access TVET without a heavy subsidy from the government and financial support in form of bursary scholarships and loans. Currently over 98% of those enrolled in TVET institutions are self sponsored with very few receiving any kind of financial support in terms of loans, bursaries or scholarships. Financing TVET has been increasing since the year 2003/4. However, most Youth polytechnic and Institutions of Technology have to grapple with the run down physical facilities and obsolete equipment due to lack of funds. Development finance which is crucial for capacity development and expansion has not been forthcoming. The level of recurrent funding is still low hence the need for strategies for enhancing resource base for efficient and effective implementation of TVET (NESS, 2005/2006).

On the same issue, the government of Kenya has developed a legal framework to govern TVET. This include; the constitution, Education Act (Cap 211), Higher education loan board (Cap 213), The Industrial training Act (Cap 237) among others. The Kenya Institute of Education (KIE) develops TVET curriculum and the design advocates for the acquisition of both manipulative skills and analytical skills. Government national development and session papers on TVET observe that TVET is expected to play two crucial roles in the national social economic development. Thus, provide training opportunities and career development for increased number of institution leavers and provide skilled labor needed at all levels of the economy. The skills developed should enable one to be self reliant in the absence of salaried employment and hence improve industrialization. Despite its importance TVET provision is nevertheless an expensive skilling intervention as compared to other form

2.2. Buildings, Classrooms and Students' Transition Rates

Poor institutional facilities have a detrimental impact on students' basic health. Poor institution design and facility condition can lead to sick building syndrome. Teachers in Chicago and Washington DC reported missing four days annually because of health problems caused by adverse building conditions with poor indoor air quality being the biggest problem. A national survey of institution nurses found out that over 40% of new children and staff were adversely impacted by indoor pollutants while the general accounting office stated that one in five students nationwide attend a institution that surfers from poor ventilation can boost rates of asthma and respiratory illness, both which are disproportionately observed in urban institution (Schneider, 2003).

Study carried out by Okeno (2011) on influence of institution infrastructure on students in public secondary institutions revealed that, availability of good and clean sanitation facilities greatly affect students' achievement. The study further revealed that good and

gender sensitive facilities, appear to be an important precondition for students' learning provided that support a strong academic program in the institution. Social attitude to vocational education has always been discouraging. Perception is influential in development and implementation of a personal philosophy. The world humans perceive the world they have relationship with. (Morris et. al. 1938). The manual work associated with TVET severely dampens the demand for vocational education. Further TVET is conceived as a system for the poor and for the educationally backward sections that are not eligible for admission into higher education. For instance; provision of rural curriculum in Tamil Nedu in India, familiarly" known as the "Rajaji Experiment" and the Handesa Rural Education scheme established in 1930s in Sri-Lanka, were abandoned not only because there was no demand but were also viewed as a conspiracy and designed to keep the underprivileged away from the prestigious academic curriculum (Wijemanne, 1978).

A study by Yadar (2007) and UNESCO (2008) on importance of infrastructure and teacher performance revealed that an object well handled practically impresses itself more firmly in the mind than an object merely seen from a distance. This is further supported by the United States District Education (2002) study on learning environment reported that institution buildings that can adequately provide a good learning environment are essential for students' success. According to UNICEF (2002) all classroom institutions of higher learning should have a functional, well equipped library. Libraries enables students to work independently outside formal classroom and are able to further research on their projects as quality of education is enhanced by provision of text books and reference materials which are all available in a good library (UNESCO, 2004). In addition good furniture, institution building sand good class space provides acoustic environment, friendly and visual comfort for both students and teachers. UNESCO (2002) reports that unsuitable furniture causes back problems, poor concentration spans and writing difficulties, thus reducing learning opportunities, hence transition rates.

2.3. Teaching-Learning Materials and Students' Transition Rates

The results of findings based on teaching-learning materials and academic performance in mathematics by Yana and Otieno (2010) agreed with that of Mutai (2006) who asserted that learning is strengthened when there is enough and excellent use of reference materials such as textbooks exercise books teaching aids and classrooms. The implication of this result was that provision of conducive classroom and laboratories and other teaching-learning resources can positively change students' attitude to learning of mathematics and make the subject interesting, meaningful and exciting hence, will encourage exploration and manipulation by students.

In the USA, about 50% of the institutions experience environment problems that are obstacles to teaching and learning of students. This include water, old damaged classrooms, ineffective sanitary among others. A study carried out by Okorie and Uche (2004) observes that, Educational facilities contribute directly or indirectly to teaching and learning process in the educational system. Although the Local District has the responsibility of providing the physical facilities in institutions, teachers and students have found themselves in physical environments that adversely affect their morale and in some cases, their health and physical safety. The funds to implement the exercise are not made available. The districts have to rely on taxpayer's ability or willingness to help meet capital expenses hence glaring inequities in institution environment among districts with different economic bases (Berry, 1993, 2002).

The quality of institution infrastructure is a factor in student teacher attendance, teacher retention and recruitment, child and teacher health and the quality of curriculum (Buckley, 2004). A study carried out by (Lemaster, 2009) had it that Students are less likely to attend institution when buildings are in need of structural repair; when they use temporary structures and have an understaffed janitorial service. Studies show that institutions with poorer facilities students attended less days on average. This low attendance was in turn linked to lower scores. (Lemaster, 2009).

Perennial problem of TVET is the high cost of construction, equipment, maintenance and the provision of the consumable training materials. Routine and preventive maintenance have also constituted to this. Other relevant requirements include; relevant text books, training manuals and qualified instructors. Infrastructure in an institution is critical in promoting academic achievement of students (Lewis 2005, Al Samarai and Bennell 2003). Lewis (2005) observes that focus of most governments and development agencies targeting millennium development and education for all goals (MDGs and EFA) can only be realized to sustained development in education infrastructure. In Kenya, conditions in most TVET institutions create huddles for students to get quality training and forms barriers to planning (Dierky 2002). Bennell and Al Samarai 2003 further argued that poor results and deteriorating quality of education in institutions of higher learning in many African countries is occasioned by weak investment in education infrastructure.

A study by Yadar (2007) and UNESCO (2008) observed that an object well handled practically impresses itself more firmly in the mind than if the object is merely seen from a distance or in an illustration. When we learn by doing then scientific practices and applications are rendered more meaningful. Therefore, continuous renovations and enhanced management of institutions helps send a "we care" message to students and the staff and helps shape attitudes hence positive performance. Quality of a structurally sound old institution building even though deteriorated or degraded inside can be made appealing through human intervention. Training is low with undue emphasis on theory and certification rather than on skills acquisition and proficiency testing. Inadequate instructor training, Obsolete training equipment and lack of instructional materials are some of the factors that combine to reduce the effectiveness of training in meeting the required knowledge and skills objectives in TVET institutions.

2.4. Welfare, Sanitation Facilities and Students' Transition Rates

Overbaugh (1990) in her study on the relationship between physical environments to teacher professionalism reveled that, physical environment affect teachers and students in their performance. She further emphasized the importance of environment features which affect students and teachers performance were classroom, furniture and class equipment. Marianhi (1979) further commented that a

simple dignified artistic exterior is suggestive of the purpose for which institution buildings exists, make the scholars proud of their institution and will have an impressive influence on their performance. The 1997 renovations of the Charles Young Hills Institution top academy in the District of Columbia is a classic illustration of how an improved institution environment contributes to higher levels of education performance hence increasing transition rates of students. Aging institutions should not be abandoned instead they should be revitalized and made to contribute effectively to the process of education. Regardless of where the institution is located a healthy environment is comfortable and secure from danger. It radiates a sense of well being and sends a caring message. This confirms the comfort that students require at any educational level in order to enhance performance. (Bhaw, 2005).

A study carried out to determine barriers to girls education conducted by Mungai (2002) concurred that facilities promote girl child education after it emerged that lack of particular institution facilities and sanitary equipment have a strong bearing on girls participation in an institution. The study noted that as girls grow older their biological processes set them apart from boys hence girls require spaces of privacy and girls' only toilet facilities. There places where such facilities lacked, girls missed time for tuition disproportionately hence this absenteeism jeopardizes their performance.

However, in Kenya, the provision of educational opportunities to all children has been the government's plan for Economic Recovery Strategy (ERS) and Poverty Reduction Strategy (PRS). One of the highest priorities of the two strategies has been to collaborate with development partners in providing additional learning facilities. A position very well supported by Koech, (1999) and Kamunge (1988) that underscores learning infrastructure as a component of quality education. This approach was necessary because according to National Economic Survey 2005/2006 statistics, up to 46% of the Kenyan population live in absolute poverty line. With the high cost of providing TVET, it is difficult for the segment of the population to access TVET without a heavy subsidy from the government and financial support in form of bursary, scholarships and loans (TVET, 2007). The government is also making efforts to offer loans to TVET students but this is yet to be implemented.

Poor physical facilities still remain a major barrier to improving access to institutions of higher education in Kenya. Ideally, institution infrastructure should also be designed to provide access to students with special needs and be gender sensitive especially in relation to health, hygiene and sanitation provision (World Bank, 2001). Low budgetary allocation for TVET sector in Kenya, contradicts the prioritization of TVET as a vehicle for industrialization as indicated in Kenya Vision; 2030. Studies carried out by Okeno, (2011) on how institution infrastructure influences students' achievement in public secondary institutions in Rachuonyo North District posit that, infrastructural conditions in Kenya create hurdles to quality education and forms barriers to transition. Most of the institutions do not meet the basic standards of health and use of sustainable methods is marginal. Most TVET institutions in Kenya are community-based organizations. For instance, Youth polytechnics (YPs) and Institutes of technology (ITs) have to grapple with run down physical facilities' and obsolete equipments due to lack of funds (GoK, 2002).

2.5. Gaps in Knowledge

This study has a lot in common with previous studies undertaken by (SIDA, 2000) which demonstrated that educational reforms include changes which are expected to take place in classroom and must be reflected in teacher education. The study recommended that teachers need to be continuously upgraded in order to meet the ever increasing demands placed upon their profession. The result of these findings based on teaching and learning resources (Mutai, 2006) agreed with that one of Yana and Otieno 2010) who asserted that acquisition of skills is strengthened when there is enough reference materials such as text books and teaching resources such as classrooms and their correct use. The implication of this result is that provision of conducive classroom, laboratories, workshops and other teaching/learning resources can positively change teachers' and students' attitude towards learning and hence increase acquisition of skills. Both teachers and students tend to enjoy their work when there is adequate teaching and learning resources and that there is no struggling to reach for use. This study was only based on teaching/learning resources influencing transition rate of students but it never looked at teachers' contribution wholesomely.

Another study carried out by Simiyu (2007) on revitalizing a TVET institution observed that the equipment and machinery used for general agriculture were more expensive than those used in other courses hence low enrolment in such disciplines. But the study never looked at how funding influences transition rate of diploma students in TVET institutions. While studies carried out by Atwalla (2011) on determinants of teachers' performance in public secondary institutions observed that teachers proximity to work place, teaching learning resources and infrastructure influenced teachers' performance, however, her studies dwelt on teachers' performance as opposed to students' performance and transition. This study is therefore going to look at students' transition rate in relation to teaching/learning resources that have been overlooked by many researchers but are the components of extrinsic factors that enhance students' transition rates in TVET institutions.

A critical look at the foregoing literature review shows that; indeed several studies have been conducted on the effects of teaching-learning resources on students' achievement. However, these have been primarily conducted in United States, Europe and Asia. This would mean that the findings of these studies may not be applicable to societies and organizations in developing countries like Kenya and in particular RIAT. Secondly, the cited scholars in the literature review have attempted to explain the influence of teaching-learning resources on student's achievement. But the study intends to go beyond the efforts of the cited scholars by looking at how these variables individually and interactively influence the transition rates of diploma students in RIAT.

385 Vol 3 Issue 9 September, 2015

3. Research Methodology

3.1. Research Design

The study was conducted through a descriptive survey research design. Mugenda and Mugenda (2003) posit that descriptive survey research design allows the researcher to secure information concerning a phenomenon under study from a selected number of respondents.

Descriptive survey design enabled the researcher to describe the population with respect to the given outcome and to collect information on many variables from as many number of respondents and hence it was an efficient way of collecting information in this particular study. Descriptive survey design was also suitable for this study as it were flexible in the sense that a wide range of information such as: performance, transition, perception, enrollment, experiences were collected. Given the nature of this study a lot of information was collected ranging from social economic profile to measures of transition rate of students therefore the descriptive survey design was the most appropriate for the study where sample size is small and where structured questions are used. The design, at a glance, makes the researcher to identify what is in the whole population and considering the nature of the data and resources that are available being always limited, this design is the best. A well conducted survey can provide a description of sample that is a representative of general population and show the phenomenon that is currently happening in such population. Kothari (1990), however warns that, since there are a number of limitations such as: chances of error, there is need for the researcher to closely supervise the research assistants.

3.2. Target Population

The target population is a set of individuals, items, and objects with the same common observable characteristics Mugenda and Mugenda (1999). The target population for this study was 133 respondents which consisted of, 124 Students, 8 Heads of Departments and 1 Registrar from Ramogi Institute of Advanced Technology from which the sample size was drawn.

3.3. Sample Size and Sampling Procedure

The study employed stratified sampling in the selection of students for the study. The desired sample size of respondents was determined by employing Amin Table of samples adopted from Krejcie and Morgan (1970) table for determining sample size at 5% margin of error and 95% confidence cited by Amin (2005).

Study Sample	Total Population	Sample Size	Sampling Technique
Students	124	95	Simple random
Heads of Departments	8	8	Purposive
Registrar	1	1	Purposive
Total	133	104	

Table 1: Distribution showing sample size

Students were stratified as per departments and were drawn from each stratum. Purposive sampling was used to sample heads of departments and since the departments were few to be subjected to random sampling method. The number of students sampled per department depended on the number of students in the department, which depended on the following calculation. For example, the sample size of students in Food and Beverage Production department was determined by the following formula:

No. of students x Required sample $= \frac{34 \times 95}{124} = 26$ Total population of students 124

This served as adequate representation of the population about which the researcher wished to generalize the findings. The same procedure was followed for all the departments in the institution. See Appendix V page 114.

3.4. Research Instruments

According to Mugenda and Mugenda (2003), questionnaires allow measurements for against a particular view point at the same time it collects large amount of information in a reasonable quick space of time. This study had two sets of data collection instruments which included questionnaire and interview schedules designed and based on the objectives of the study. The questionnaire was administered to student respondents while the interview study was administered to HODs and registrar. The standard questionnaires developed had both closed and open ended questions. Questionnaire allows for or against particular view points at the same time collects large amount of information in a reasonable quick space of time Mugenda and Mugenda (2003). A questionnaire generated quantitative data and it was preferred in the study because it provides most confidential information about the study due to the absence of interviewer bias. The questionnaire comprised of a list of all possible alternatives from which respondents selected answers that best suit them. The open ended type of interview method was used because it allowed the researcher to ask respondents unstructured questions thus allowing the interview to be more of a discussion. The open ended questions however were to help capture the influence that the stated teaching-learning resources had on the students' transition and this was to be used at cross tabulation.

The set of questionnaire for students was divided into two sections one section for demographic information on the students' respondents, while the other section contained information on how students rank the status of their teaching-learning resources, their development needs and the effect of lack of the indicated facilities on their transition. Questionnaire was constructed in both closed and open ended to give room for extra responses and other relevant information that may assist in the study that may not have been

captured by the researcher. Interview schedule was used for qualitative data collection that quantitative data collection may not have captured. This was administered to the registrar and Heads of departments only.

3.5. Validity and Reliability of Instruments

According to Mugenda and Mugenda (1999), validity is the degree to which results obtained from the analysis of data actually represents the phenomenon under study. Validity was ensured through pre-testing in a similar institution that offers the same diploma courses. Pre-testing helped in assessing the clarity of the instruments items so that those found to be inadequate in measuring variables were modified. The study questionnaire and interview schedule was submitted to the supervisor for validation and review of the content of the items in the instruments in relation to research questions and determine if the items are within the linguistic capabilities and understanding of students of RIAT. Vague and ambiguous questions were identified and adjusted accordingly.

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials and it is influenced by random errors. Errors may rise from coding fatigue and bias (Mugenda & Mugenda, 2008). A measure is reliable to the extent that repeated application of it under the same condition by different researchers gives the same results(Taylor,2008). To ensure that the instruments were reliable for the study, the researcher used test retest technique which involved selecting twelve respondents while piloting the study in Kaimosi Technical institute and administered to them the same twice in a lapse of two weeks. Both the results were recorded, compared and correlated. A correlation coefficient of 0.8 was considered high enough that the instrument was reliable for the study. The following correlation formula of Pearson product moment of correlation coefficient (Harper, 1991) denoted as below was used.

$$R = \frac{nx \; \sum xy - \sum x \sum y}{\sqrt{\left\{ \left(n \; \sum x^2 - \left(\sum x\right)^2\right\} \; \left\{n \; \sum y^2 - \left(\sum y\right)^2\right\}}}$$

Where: R= coefficient of correlation x=values of variable x, y=values of variable y

3.6. Data Analysis Techniques and Presentation

According to Brymann and Cramer (1999), data analysis seeks to fulfill the research objections and provides answers to research questions. The study used descriptive analysis to analyze data collected. Both quantitative and qualitative approaches were employed to process and analyze data. Quantitative approach was done by listing and coding open ended data which together with pre-coded quantitative data was digitalized using the SPSS package and MS Excel. Data was then cleaned, verified and used to generate frequency distribution with percentages, cross tabulations with correlations. In the qualitative dimension, data was listed and organized under key thematic areas followed by the data description, interpretation and triangulation.

4. Data Analysis, Presentation, Interpretation and Discussion

The study was analyzed according to the specific objectives:

A. Funding and Students Transition Rate

This theme emanates from the first objective of this study. An important aspect of vocational training refers to its funding and its cost. The International Labour Organization (1999) on orientation towards training for informal sector observed that, TVET institutions should cover for their own operating costs. This was to be realized through payment of fees, offering short courses at full cost and selling products and services. In view of this background, the study sought to establish whether funding influenced students' education. These were addressed in the following subsequent sub-themes;

4.1. Students with Fee Arrears

Since funding of TVET is costly and institutions are to seek ways and means of raising funds for its operation s, the researcher sought to explore the number of students who had fee arrears. It was important to establish the number of students who had fee arrears and the cause of this accumulation and if it had any impact on the institution's planning and students' transition. In order to achieve the objective the student respondents were asked to state if they had any fee arrears Table 2 shows the results.

Responses	Frequency	Percentage	
Yes	34	38.64	
No	54	61.36	
Total	88	100	

Table 2: Students with fee arrears

From the findings presented in table 2, out of 88 student participants 34 (38.64%) students had fee arrears and 54 (61.36%) students did not have fee arrears. These results show that majority of the students had problems in raising fees with only a proportion of 38.64% accessing reliable funding. This result implies that quite a number of students fail to transit because they lack funding of their education. When interviewed "a number of students have fee arrears due to high incidences of poverty and orphan hood. There is no time I have observed more than 70% of students clearing fees in a single term." In adequate investments cannot produce higher

returns. As the only way of curbing retention of students in the institutions, the government of South Africa has the option of lowering fees or abolishing it completely in order to do away with discriminatory dual track option that is offered by a good number of institutions. The government has each Sector of Education Training Authority (SETA) established and armed with substantial annual budget sourced from the private sector. This enables those students from humble backgrounds to access TVET education (Akoojee, 2007).

4.2 Distribution of Respondents by Fee Arrears.

The study proceeded to investigate the amount of fee arrears the students had and its impact on the institution's planning. This information was significant because it would bring out the fee arrears the students owed the institution and whether it impacted on the intuition's planning. To answer this question, the students were asked to state the fee arrears they owed the institution using the given guidelines and the results were as shown in table 3

Amount of Fee Arrears	Frequency	Percentage
Less than sh. 4,000	8	23.53
Between sh. $5,000 - 8,000$	5	14.71
Between sh. 9,000 – 14,000	15	44.12
Above sh. 14,000	6	17.65
Total	34	100

Table 3: Distribution of respondents by fee arrears

As presented in table 3, out of the 34 sampled students who had confirmed that they had fee arrears, 8 (23.53%) had arrears of less than 4,000 shillings, 5 (14.71%) had arrears of between 5,000 and 8,000 shillings and 6 (17.65%) had arrears of over 14,000 shillings. This results show that majority of the students had more than 8,000 shillings as fee arrears and a proportion of 21 (23.86%) of the sampled students were at risk of being sent away for fees. When interviewed on steps taken against those with fee arrears, the registrar said; "Although the institution insists that, at least 60% of fee is paid in the first month of the term; most of the students are unable to meet the deadline. Students with outstanding balances of more than 9,000 shillings are sent away if fee is not paid by end of the second month." This implies that the administration has given room for students who pay their fee in installments until completion. However this may impact negatively on the institution's planning and development hence compromise the quality and quantity of resources needed to run the institution. This finding is in line with that of Siringi,D. (march, 2007) on impact of cost sharing in schools which observes that

4.3. Influence of Fee Arrears on Dropout Rate

Failure to pay fee led to students being sent home. The researcher sought to know if fee arrears had an effect on transition of students. The respondents were asked to state whether they had experienced their colleagues drop out of the institution because of fee arrears. Table 4 shows the results of their responses.

	Stud	dents	HODs	
Responses	Frequency	%	Frequency	%
Yes	54	61.36	7	82.5
No	34	34.09	1	17.5
Total	88	100	8	100

Table 4: Influence of fee arrears on drop out

Out of 88 student respondents, 54 (61.36%) students said they had experienced their colleagues' dropout because of fee arrears and 7 (82.5%) HODs said that they had experienced student's dropout because of fee arrears. This could be interpreted to mean that fee arrears were the key reason for students drop out and therefore failing to make successful transition in their education. This could possibly be due to the fact that these students lack reliable sources to fund their education. The interview with the registrar had it that sending students home to collect fees was the only way the institution could collect the fee arrears although many of the students failed to come back leading to dropout and lack of transition .

The dual system of education employed by the government of Germany to match the labor market, has enabled many students to work as well as learn in TVET institutions (Johanson and Adams, 2007). A system, if borrowed by Kenyan TVET institution would help reduce dropout rate of students as they would work and learn at the same time and use the money earned to pay for their fees and examinations which most of them are unable to raise prompting dropping out hence low transition rate.

4.4. Students' Dropout Rate

The researcher further examined the extent to which fee arrears led to students dropping out and consequently failing to make successful transition. The study was important because the information gathered could be used to explain why there is low transition of students in the institution. It could also be used by the educational stakeholders to find a solution to curb the high dropout rate of students. To answer the question the students were asked to state the dropout rate of students using the given guidelines. Table 5 shows the result.

Dropout Rate of Students	f Departments	
	Frequency	Percentage
Very high	5	62.5
High	2	25
Average	1	12.5
Low	0	0
Very low	0	0
Total	8	100

Table 5: Drop out rate of students

From table 5, it can be seen that, out of 8 participants 5 (62.5%) HODs said that fee arrears led to students dropping out to a very high extent, 2 (25%) had it that fee arrears led to dropping out to a high extent and 1 (12.5%) HOD said that fee arrears led to dropping out to a low extent. These results clearly show that most of the student respondents had fee arrears resulting from lack of reliable sources of funding for the students education and this led to a high students drop out. The provision for educational opportunities to all children in Kenya which has been the government's plan for Economic Recovery Strategy (ERS) and Poverty Reduction Strategy (PRS) of (2005/2006). Despite these strategies, the level of recurrent funding is still low hence the need for strategies for enhancing resource base for efficient and effective implementation of TVET (NESS, 2005/2006). Unless there is heavy subsidy from the government and financial support for bursary and scholarships for this segment of population to access education, then these strategies may not be realized very soon.

4.5. Reliability of Sources of Funding Students' Education

Most TVET institutions in Kenya are community based organizations, this leaves most of the polytechnics and institutes of technology to grapple with run down physical facilities and obsolete equipment due to lack of funds. The study therefore sought to examine the reliability of various sources of funding for students' education. It was important to establish who is responsible for funding of students' education in the institution and see how best to assist those who may have difficulties in funding their education. The participants were asked to rate the provision of their fee payment. Table 6 shows the results.

Source	VG	G	A	P	VP	Mean
Parents	16(18.18%)	21(23.86%)	33(37.5%)	11(12.5%)	7 (7.95%)	3.318
HELB loans	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0
Scholarships	1 (1.14%)	8(9.09%)	11(12.5%)	31(35.23%)	37(42.05%)	1.92
Bursaries	9 (10.23%)	17(19.32%)	25(28.41%)	29(32.95%)	8 (9.09%)	2.886

Table 6: Sources of funding students education

Table 6 shows that, out of the 88 participants, 16 (18.18%) of students observed that the funding they got from their parents was very good, 19 (21.59%) students reported that the funding from parents was good and 33 (37.5% students said that the funding was average, while 11 (12.5%) said that parents' funding was poor and 7 (7.95%) of students were of the opinion that parents' funding was very poor. The average for their response was 3.318. Since the average was a value between 2.5 and 3.5 it means that the adequacy of the funding sourced from parents was average. When interviewed on sources of funds for students. The registrar had this to say; "Approximately 60% of parents are able to pay fees reliably, the remaining 40% are not and largely give false promises to the institution. This leads to huge fee accumulation in the subsequent terms to a point that they cannot pay."

These findings correspond to the findings of ADB/OECD (2008) on funding of TVET institutions in the Peoples Republic of China which reported that TVET funding is a shared responsibility between government and students. The students pay more and the government pays less. However the government also supports TVET through several schemes it has established. There is a scheme for boarding facilities for students from rural residence as well as for poor students from an urban setting. Another scheme targets poor families whose tuition fee is waived. Lowering fee across the board is supposed to encourage more students to join TVET which presently meets the government's priorities. It is also a way of addressing dire and worsening income inequalities.

The study also sought to establish whether students received any funds from HELB. The findings were that, no student received HELB loan. This meant that the students were deprived off a very important source of funds for their education. This could also imply that there is lack of information about HELB as a source of funds for education. This information could also be used by the ministry of education to extend the provision of HELB to students in the institution, but the government should provide more bursaries to students to enable those students from humble backgrounds access TVET education.

This finding is in contrast with the findings of (ADB, 2009) on how the USA government offers bailout packages to various crucial sectors of economy in its effort to meet TVET requirements. The special provision is made for providing training to the current employees with an aim of harnessing essential skills that would address the emerging challenges of global financial crisis. The same training fund is used to extend special support to vulnerable groups and in building capacity of workforce for future development.

The study further examined the adequacy of scholarships the students obtained to support their education. To answer the question the students were asked to rate the adequacy of scholarships they received to support their education. Out of the 88 respondents who participated in the study 1 (10.23%) student said that the adequacy of the scholarships they received was very good, 8 (9.09%)

students reported that the adequacy of the scholarships they received was average, 31 (35.23%) students said that the adequacy of the scholarships to finance their education was poor and 37 (42.05%) students observed that the adequacy of the scholarships offer they received was very poor. The mean response was 1.92. This meant that majority of the students; over 65% were of the opinion that the scholarships offer was poor. This was supported by the registrar in an interview. He said that; "A few students are able to get scholarships from institutions such as the Price Waterhouse Coopers, but this is not enough since only a few students manage to get funding from scholarships and it is not adequate." Lack of funding for students education could impact negatively on their transition The finding confirms the finding of (NESS, 2005/2006) on funding, which states that, the level of recurrent funding of TVET is still low, hence the need for strategies for enhancing resource base for efficient and effective implementation of TVET unless there is heavy subsidy from the government and financial support for bursary and scholarships.

The study equally explored the adequacy of bursaries the students received to fund their education. It was deemed important to explore the adequacy of the bursaries the students received because this information could be used by stakeholders to increase provision and amount of bursaries offered. Out of the students who participated in the study, 9 (10.23%) students said that the bursaries they received were very good, 17 (19.32%) students reported that the adequacy of the bursaries they received was good, 25 (28.41%) students had it that the adequacy of the bursaries they received was average, 29 (32.95%) students reported that the bursary they received was low and 8 (9.09%) respondents said that the bursaries they received was very low. The mean response was 2.886. This meant that a few students have benefited from bursaries in the institution and 51(57.96) were of the opinion that the adequacy of the bursaries was average. The registrar expressed similar sentiments. He said that; "although a good number of students get bursaries from Constituency Development Fund (CDF), the amount allocated is very small and cannot enable them pay for their courses to completion."

This finding is in line that of (ADB/OECD, 2008)on funding of TVET in India, which stated that the central government works in collaboration with the state governments, industry and community work groups to increase access to and quality TVET across the country through development policies that aim at expanding TVET system. They also offer flexible learning program that target those already in employment to enable changes required in TVET cannot be achieved by the central government alone.

The time when fee is paid is very important as this helps students to settle down quickly for their studies. When funds to implement development activities in the institution are not made available by the government, the institution has to rely on the fee paid by students or well wishers to help meet capital expenses. Meanwhile the institution has to do with what is available. The use of sustainable method is marginal. Many institutions are run down as maintenance lags behind. The government kept back from financing education leaving it to the communities

B. Institution, Buildings, Classrooms and Students' Transition Rate

Perennial problem of TVET is the high cost of construction, equipment, maintenance and the provision of the consumable training materials. Routine and preventive maintenance have also constituted to this. Other relevant requirements include; relevant textbooks, training manuals and qualified instructors. The second objective of the study examined the influence of institutional buildings on the transition rate of students in RIAT and addressed in the following subsequent sub-themes.

4.6. Adequacy of Buildings and Classrooms in the Institution

Poor institutional facilities have a detrimental impact on students' basic health. Poor institution design and facility condition can lead to sick building syndrome. The participants in this study were asked to rate the adequacy of classrooms and other buildings. Table 7 shows the results.

Building	VG		A	P	VP	Mean
classrooms	0 (0%)	2(2.27%)	29(32.95%)	23(26.14%)	34(38.64%)	1.989
Kitchen	0(0%)	2(2.27%)	23(26.14%)	37(42.05%)	26(29.55%)	2.011
Hostels	11(12.5%)	25(28.41%)	39(44.32%)	9 (10.23%)	4(4.55%)	3.341
Halls	2 (2.27%)	19(21.59%)	31(35.23%)	27(30.68%)	9 (10.23%)	2.75

Table 7: Adequacy of buildings in the institution

From table 7, out of 88 respondent who participated in the study, 2 (2.27%) students reported that the adequacy of the classrooms was good, 29 (32.95%) students said that the adequacy of the classrooms was average, 23 (26.14%) students said that the adequacy of the buildings in the institution was poor and 34 (38.64%) students were of the opinion that the adequacy of the classrooms was very poor. The average of the response was 1.989. From this finding it can be concluded that the institutions buildings lacked adequacy. When interviewed the registrar said that;" The classrooms are not enough and students are on motion all the time looking for vacant rooms to conduct their classes, leading to time wastage." This implies that the curriculum content may not be covered in good time considering the time wasted when moving from one class to the other, per day, per week, per month and per year.

The findings of the study contradicts the studies carried out by Okorie and Uche (2004) on significance of educational facilities which posits that, Educational facilities contribute directly or indirectly to teaching and learning process in the educational system.

The study further sought to find the extent to which quality of kitchen and eating areas affected the students' transition rate. To answer the question the students were asked to rate the adequacy of the adequacy of the kitchen and eating areas using the given guidelines. In response; 2 (2.27%) of the respondents observed that the adequacy of the kitchen in the institution was good, 23 (26.14%) respondents said that the adequacy of the kitchen was average 37 (42.05%) said that the adequacy of the kitchen was poor, and 26 (29.55%)

students said that the adequacy of the kitchen in the institution was very poor. The mean score for adequacy s 2.011; this meant that 66 (71.6%) of the respondents were of the opinion that the adequacy of the kitchen was poor. This finding could imply that the students' meals were not prepared in good time because of the high population hence consuming part of class time. This could also mean that the kitchen and eating areas have profound influence on student transition rates. Overcrowding due to inadequacy of physical resource affect both classroom activities and instructional activities (Bartz, 1995).

Out of 88 participants, 11 (12.5%) students reported that the adequacy of the hostels was very good, 25 (28.41%) students said that the adequacy of the hostels was average, 9 (10.23%) students said that the adequacy of the hostels was poor and 4 (4.55%) students were of the opinion that the adequacy of the hostels was very poor. The mean score for the response was 3.341; this meant that most of the students were of the view that the adequacy of the hostels was average. The students who fail to get accommodation in the institution are usually forced to operate as day scholars and this consumes their morning and evening time trekking to the institution denying them time to carry out their studies to late hours of the evening. Time was very important and had to be observed. This students have to use part of their class time to travel back home. This also compromises their safety especially the female gender.

The study sought to understand the extent to which the adequacy of the halls in the institution influenced students' transition rate. Out of 88 participants, 2 (2.27%) respondents were of the view that the adequacy of the halls in the institution was very good, 19 (21.59%) students said that the adequacy of the halls in the institution was good, 31 (35.23%) students reported that the adequacy of the institution was average, 27 (30.63%) students had it that adequacy of the halls was poor and 9(10.23) students said that the adequacy of the halls in the institution was very poor. The mean score for the response was 2.75; This finding and the positive effect shows that the adequacy of halls in the institution was average and does not necessarily influence students' transition rate.

4.7. Physical State of Buildings and Classrooms

A high performance institution seeks to provide adequate space and opportunities for students and teachers to spread out, reflect, interact, exchange information, examine and test ideas. The study further explored the physical state of the buildings in the intuitions, for instance, the spacing, lighting, walls and roof quality. The students were presented with a set of questions asking them to rate the physicals state of the buildings. Table 8 shows the results

Building	VG	G	A	P	VP	Mean
Classrooms	3(3.41%)	16(18.18%)	27(30.68%)	3 (37.5%)	(10.23%)	2.67
Kitchen	(2.27%)	7 (7.95%)	19(21.59%)	18(20.45%)	42(47.73%)	1.966
Hostels	(6.82%)	19(21.59%)	28(31.82%)	33 (37.5%)	2(2.27%)	2.932
Halls	15(17.05%)	22 (25%)	29(32.95%)	17(19.32%)	5(5.68%)	3.284

Table 8: Physical state of buildings in the institution

In response to the physical state of classrooms in the institution, out of 88 respondents, 3(3.41%) students reported that the physical state of buildings in the institution was very good, 16 (18.18%) students had it that the physical state of the classrooms was good, 27 (30.68%) had it that the physical state of the classrooms was average, 33 (37.5%) students said that the physical state of the classrooms was poor and 9 (10.23%) student said the physical state of the classroom was very poor. The mean score for the response was 2.67, meaning that the students in the study were of the opinion that the physical state of the classrooms was neither good nor bad but was average. When asked to respond to the state of facilities, the registrar had this to say; "The students waste a lot of time moving from one room to another looking for space to conduct their lessons and this is occasioned by the institution having few classes to accommodate the students. Most classes are small in size compared to the number of students they carry." This means that, there was congestion and inability of the students to get quality learning.

However the findings of this study conforms to the study of Lemasster *et al*, (2009) on importance of buildings and classrooms he asserted that a classroom is the most important area of an institution because it is where students and teachers spend most of their time and it is where learning processes take place. For this reason classrooms should be designed to accommodate reasonable number of students in order to increase interaction and communication.

A comparison rate on the physical state of the kitchen showed that 60 (65%) of the participants were of the opinion that the physical state of the kitchen was below average. However, out of 88 participants, 28 (35%) of students said that it was above average. The mean response was 1.966; this meant that on average the respondents were of the opinion that physical state of the kitchen was poor. According to the National Center for Education Statistics (1998) on infrastructure posits that, the useful life of a building can be extended to approximately 50 years if major renovations take place after approximately 25 years. What some institution leaders do not realize is a direct quantifiable connection between the school facility and the student transition. The institution should consider renovating the institutions kitchen or put up a new one. In line with this finding is the study of Fernandez (1995) on overcrowding institution facilities reported that, overcrowded classes are noisier, they create more non institutional duties and paperwork and thus inhibit teaching and learning.

In responding to the physical state of the hostels in the institution, out of 88 respondents 6(6.82%) students said that the physical state of the hostels in the institution was very good, 19 (21.5%) students said that the physical state of the hostels was good, 28 (31.82%) observed that the physical state of the hostels was average, 33 (37.5%) students rated the physical state of the hostels as poor and lastly 2 (2.27%) students had it that the physical state of the hostels was very poor. The mean score for the response was 2.932. The trend of the responses could be interpreted to mean that the physical state of the hostels was neither good nor bad but was average.

This result could also imply that the few students who have opted to be commuters could have been influenced by the poor physical state of the hostels.

This finding is in line with the studies of Frazier (1993) on institutional facilities which assert that dilapidated, crowded or uncomfortable institution infrastructure leads to low morale and to reduced effort on the part of teachers and students alike. It may be that it is these dynamics that influence transition rate of students especially when learning infrastructure is inadequate.

The study also sought to find out the influence of physical state of halls on transition rate of students, out of 88 participants, 15(17.05%) students observed that the physical state of the halls in the institution was very good, 22 (25%) students rated the physical state of the halls as good, 29 (32.95%) said that the physical state of the halls was average, 17 (19.32%) students said that the physical state of the halls was poor and 5 (5.68%) students rated the physical state of the halls as very poor. The mean score for the response was 2.932; this meant that the students in the study were of the opinion that the physical state of the halls was average.

This finding is supported by the findings of the United States District of Education (2002) on importance of institutional facilities reports that, school buildings that can adequately provide a good learning environment are essential for students' success. Because the state of halls in the institution is average, students enjoy free space and this is also a motivator to students performance hence an increase in their transition rate.

4.8. Teaching-Learning Materials and Students' Transition Rate

Perennial problem of TVET is the high cost of construction, equipment, maintenance and the provision of the consumable training materials. Routine and preventive maintenance have also constituted to this. Other relevant requirements include; relevant text books, training manuals and qualified instructors. The third objective of the study sought to explore the extent to which cost of teaching and learning materials influenced students' transition. The students were presented with a question asking them to state whether there were any teaching and learning materials they were expected to buy. Table 9 shows the results.

	Student	Students		
Responses	Frequency	%	Frequency	%
Yes	80	90.91	8	100
No	8	9.09	0	0
Total	88	100	100	100

Table 9: Teaching and learning materials

Table 9 shows that 8(100%) and 80 (90.91) students who participated in the study said that there were teaching and learning materials that the students bought themselves. This implies that teaching-learning materials are important in learning especially when the right quantity and quality is employed, it can manipulate other resources towards achieving the set goals. This finding is in line with that of Yadar (2007) and UNESCO (2008) which observed that an object well handled practically impresses itself more firmly in the mind than if the object is merely seen from a distance or in an illustration. When we learn by doing then scientific practices and applications are rendered more meaningful. Therefore, continuous renovations and enhanced management of institutions helps send a "we care" message to students and the staff and helps shape attitudes hence positive transition.

4.9. Regularity of Buying Teaching-Learning Materials by Students

The study further examined the regularity with which the students were expected to buy this teaching and learning materials and whether they were able to cope. Table 10 shows the results. It was important to establish how often the teaching materials were bought by students and whether they were able to buy.

Rate	Frequency	Percentage
At the start of the program	72	81.82
Every term	10	11.36
Twice a term	4	4.55
Thrice a term	2	2.27
Total	80	100

Table 10: Regularity of buying the teaching and learning materials by students

From the findings in table 10, out of 88 participants, 72 (81.82%) students reported that they bought the materials at the beginning of the program, 10 (11.36%) students said that they bought teaching and learning materials every term, 4 (4.55%) students observed that they bought materials twice every term, 2 (2.27%) students said that they bought the teaching and learning materials thrice a term. This results show that the frequency with which the students bought the teaching and learning materials was very high that if it were a reason for students dropping out, then most students could drop out.

The findings also reveal the positive relationship that exists between learning materials and transition. Institutions that are equipped with enough teaching-learning materials are likely to perform better. It is in view of this that the education sector, in its effort to improve mathematics and science in secondary schools is tasked with the provision of teaching —learning materials. Similarly the CDF funds are used to purchase teaching-learning materials such as stationeries and laboratory equipments (Yana and Otieno, 2010).

4.10. Cost of Teaching-Learning Materials

The study further explored the cost of teaching-learning materials to find out whether they were costly or not. This area of study was important because this information would be used to establish if the cost of teaching-learning of materials had any influence on transition rate of students. Table 11 shows the results.

	Stud	lents	Heads of de	epartments
Responses	Frequency	%	Frequency	%
Very costly	33	37.5	2	25
Costly	29	32.95	4	50
Average	15	17.05	2	25
Fair	10	11.36	0	0
Very fair	1	1.14	0	0
Total	80	100	8	100

Table 11: Cost of teaching and learning materials

From table 11, the majority of students had it that the cost of buying teaching and learning materials was very costly out of 80 participants, 33 (37.5 %,) students respondents and 2 (25%) HODs said that it was very costly, 29 (32.95%) students and 4 (50%) HODs reported that the cost of buying the teaching and learning materials was costly, 15 (17.05%) students and 2 (25%) HODs said that the cost of buying the teaching and learning materials was average, 10 (11.36%) students observed that the cost was fair and 1 (1.14%) student said that the cost was very fair. These results show that the cost of buying teaching and learning materials is costly and most students are likely to do without them, given the fact that even payment of fee is an issue. TVET is about acquisition of skills, to support industrialization, create wealth, improve economic growth and eradicate poverty. In view of this, the skills training need to be of high quality and skill based. Without technical skills nations are un likely to ascend to the value chain and achieve appropriate levels of development (Sako et al, 1999). The institution should therefore find ways of buying teaching-learning materials that could be used by students from humble background so that the rate of retention and transition is enhanced.

4.11. Influence of Cost of Teaching-Learning Materials on Transition

Having established that it was costly to buy teaching and learning materials, the researcher proceeded to find out whether any student had observed some of their colleagues dropout of learning because they could not afford the high cost of teaching and learning materials. To answer the question the students were asked to respond using the given guidelines. Table 12 shows the results.

	Students		НО	Ds
Rate of Dropout	Frequency	%	Frequency	%
Yes	26	29.55	2	25
No	62	70.45	6	75
Total	88	100	8	100

Table 12: Influence of the cost of teaching and learning materials on transition

From table 12, out of 88 respondents 26 (29.55%) students and 2 (25%) HODs said that they had observed students dropping out of learning because of costly teaching and learning materials. When interviewed the registrar had this to say; "most books that students are expected to buy are important but very expensive. Many students are unable to buy them." This means that, students miss reference books for their learning purposes and consequently performing poorly. Poor performance means that the students repeat their classes or even dropout of learning hence affecting transition. A well Planned, Do, See, Improve (PDSI) approach to learning by (Yana and Otieno, 2010) stresses the need for learners to carry out a well planned learning activity that involves seeing for themselves and even improving the activity even further for effective learning to take place. This can only be realized if there is enough provision of instructional materials.

4.12. Extent of Influence on Cost of Learning Materials

The study further sought the opinion of the students on the extent to which the high cost of teaching and learning materials influenced dropping out. It was important to study this area because the information would help the education providers to identify and buy the teaching-learning materials that students could not buy. To answer the question the respondents were asked to rate the influence of cost of teaching-learning materials on students transition rate. Table 13 shows the results.

	Stud	lents	НО	Ds
Cost of Teaching Learning Materials	Frequency	%	Frequency	%
Very high	2	2.27	0	0
High	9	10.23	1	12.5
Average	12	13.64	2	25
Low	28	31.82	4	50
Very low	37	42.05	1	12.5
Total	88	100	8	100

Table 13: Extent of influence of cost of learning materials on transition

Majority of the respondents reported that the high cost of teaching and learning materials did not influence students dropping out. However, 37 (42.05%) students and 1 (12.5%) HOD said that cost of teaching and learning materials affected transition to a very low extent, 28 (31.82%) students and 4 (50%) HODs said that the high cost of teaching and learning materials affected transition to a low extent and 1 (12.5%) HODs reported that the cost of teaching and learning materials affected transition to a high or very high extent. This could imply that majority of the courses offered in the institution are not technical. It could also mean that buying of teaching learning materials is optional. However, an object well handled practically firmly impresses itself more firmly in the mind than an object merely seen from a distance. It is therefore important that teaching-learning materials are made available to students to enhance transition. The findings based on the study on the effect of teaching and learning resources on teachers performance, Yadar,(2007) and the report by UNESCO (2008) opined that teaching and learning is strengthened when there is enough reference materials.

C. Welfare, Sanitation and Students' Transition Rate

The last objective of the study explored the influence of students' welfare and sanitation of students on the transition of students. The variable was explored using the sub-themes; adequacy and comfort that students get from utilizing the learning resources, the adequacy and state of accommodation facilities and the adequacy and state of furniture in the institutions. This was addressed in the following subsequent sub-themes.

4.13. Adequacy of Teaching- Learning Resources in the Institution

The study first explored the adequacy of learning resources in the institution. The researcher presented the respondents with a set of questions asking them to rate the adequacy of the teaching and learning materials in the institution. Rating adequacy of teaching-learning materials was important as it would help note those that needed to be bought or replaced. Table 14 Adequacy of teaching-learning resources in the institution

Furniture	VG	G	A	P	VP	Mean
Library	2(2.27%)	12(13.64%)	28(31.82%)	29(32.95%)	17(19.32%)	2.466
Classrooms	0(0%)	2(2.27%)	29(32.95%)	23(26.14%)	34(38.64%)	1.989
Computer library	0(0%)	3(3.41%)	14(15.91%)	40(45.45%)	31(35.23%)	1.875
Workshop	10(11.36%)	15(17.05%)	26(29.55%)	29 32.95%)	8 (9.09%)	2.886

Table 14

From table 14, out of the 88 participants, 2 (2.27%) students said that the adequacy of the library was very good, 2 (2.27%) students said that the adequacy of the library was average, 23 (26.14%) of the students said that the adequacy of the library in the institution was poor and lastly 34 (38.64%) students said that the adequacy of the library was very poor. The average of the response was 1.989 meaning that the adequacy of library in the institution was poor. This could be a pointer to the institution of the increasing number of students who are out to access TVET education.

This finding reveals that for transition to be effective there should be good spacious classrooms to provide a learning environment for both teachers and students. A study conducted by Heinemann (1980) and Nderitu (1998) based on infrastructure and teachers' performance showed that a school library has a significant effect on the students' academic transition. The students' achievement is actually tied to the presence of a library in an institution. The study further sought to find out the adequacy of the classrooms and if they influenced students' rate. 3(3.41%) out of 88 students said that the physical state of buildings in the institution was very good, 16 (18.18%) students said that the physical state of the classrooms was good, 27 (30.68%) said that the physical state of the classrooms was average, 33 (37.5%) students said that the physical state of the classrooms was poor and lastly 9 (10.23%) students said the physical state of the classroom was very poor. The mean score for the response was 2.67, meaning that the students in the study were of the opinion that the physical state of the classrooms was neither good nor bad but was average. This implies that classrooms should be spacious enough otherwise the extrinsic aspects of work cannot provide a source of motivation for people but can, if bad, provide a source of dissatisfaction and this demotivates people (Hertzberg,1939). This is also supported by the study of Mirianni (1979) on importance of learning areas which posits that, artistic exterior is suggestive of the purpose for which school buildings exist which makes the scholars proud of their institution and will have an influence on their transition.

The study also sought to establish the extent to which the adequacy of computer library affected transition rate of students. To answer the question the students were asked to rate this provision using the given guideline. Out..of 88 participants, 3 (3.41%) students reported that the adequacy of the computer library was good, 14 (15.91%) said that the adequacy of the computer library was average, 40 (45.45%) students reported that the computer library was poorly adequate and lastly 31 (35.23%) had it that the computer library were poorly adequate and lastly 31 (35.23%) reported that the computer library was poorly adequate. The mean response was 1.875. This meant that the adequacy of computer library was poor. A small rate of respondents 17 (19.31%) rated the adequacy of the library as good. This shows how libraries are crucial aspects of students' transition. The state of computer library has a profound impact on the transition of students. Motz *et al*, (2007) opines that science education benefits from facility related improvements, whether for safety or for quality.

The study further explored the adequacy of the workshops. Out of 88 students, 10 (11.36%) students reported that the adequacy of the workshops was good, 26 (29.55%) reported that the adequacy of the workshops was good, 26 (29.55%) reported that the adequacy of the workshops was average, 29 (29.35%) reported that the workshops were poorly adequate and lastly 8 (9.09%) students were of opinion that the workshops were very poorly adequate.

The mean scores for the adequacy of workshops was 2.886, this meant that that generally the workshops were averagely adequate. This meant that a good number of students were able to access workshops and carry out their practical effectively.

This finding is in line with that of Yadar (2007) who opines that no course in science or mathematics can be considered as complete without including some practical work so is the acquisition of skills in TVET institutions. Scientific practices and applications are thus rendered meaningful because learning is acquired through practice

4.14. Effect of Teaching-Learning Resources on Transition

The study further explored the influence of the adequacy of teaching and learning resources on the transition of the students in education. The respondents were therefore presented with a question asking them whether they had observed some of their colleagues dropping out of institution because of the adequacy of teaching and learning materials.. It was significant to know whether in adequacy of teaching—learning materials had an influence on transition of students. Table 15 shows the findings of the result.

Responses	Frequency	Percentage
Yes	9	10.23
No	79	89.77
Total	88	100

Table 15: Effect of teaching and learning resources on transition

From the findings presented in table 15, out of 88 participants who took part in the study, 9 (10.23%) respondents reported that they had observed fellow students drop out because of the state of teaching and learning resources. This results show that the teaching and learning resources was a major factor affecting the students transition in the institution. When asked to comment on the state of teaching-learning resources, the registrar said that; "The institution has put in place mechanisms to track teaching and learning activities. For instance; students are given forms which they fill every term on the state of teaching and learning process in the institution. The responses from the forms are used to improve on the teaching and learning conditions in the institution so that students are provided with proper learning. The teachers prepare schemes of work and the HODs inspect the teaching and learning process to ensure that it is up to standard."

This finding is in line with proper curriculum implementation which is supported by Omulando and Shiundu (1992) who noted that given their role in curriculum implementation, teachers need appropriate and relevant training and therefore the proper use of professional record has a bearing in the transition of students. The study is further supported by the finding of TVET survey report (2007) on TVET quality standards in UK which had it that learning activities cannot be ensured without training equipment from desks to laboratories and toolkits.

4.15. Adequacy of Accommodation Facilities in the Institution

The study also examined the adequacy of the accommodation facilities in the institution. It was important to study this area because information would help to find the relationship between accommodation and students transition rate. The facilities that were studied were beds and rooms. Table 16 shows the results.

Furniture	VG	G	A	P	VP	Mean
Beds	41(46.59%)	22 (25%)	13(14.77%)	9 (10.23%)	3 (3.41%)	4.011
Rooms	3(3.41%)	7 (7.95%)	19(21.59%)	34(38.64%)	25(28.41%)	2.193

Table 16: Adequacy of accommodation facilities in the institution

From table 16, out of 88 participants who took part in the study, 21 (23.86%) students rated the adequacy of the beds in the institution as very good, 29 (32.95%) students said d that the adequacy of beds in the institution was good, 27 (30.68%) students reported that the beds in the institution were averagely adequate, 10 (11.36%) students said that the beds in the institution were poorly adequate and lastly 1 (1.14%) student said that the beds in the institution were very poorly adequate. The mean score was 3.67 meaning that generally the respondents were of the opinion that the adequacy of the beds was good. This finding shows that students comfort has profound impact on their transition. In responding to the adequacy of rooms, 3 (3.41%) of the students said that the adequacy of the rooms was very good, 7 (7.95%) students said that the adequacy of the rooms was good, 19 (21.59%) reported that the rooms were averagely adequate and lastly 59 (67.05%) students reported that the adequacy of the students rooms was below average. The mean score for the adequacy of beds was 2.193; this trend of responses could be interpreted to mean that the rooms in the institution were generally inadequate. When interviewed the registrar had it that; "the number of rooms in the institution is very small compared to the number of students enrolled. Many students miss rooms and are forced to become day scholars or else rent rooms from a nearby shopping center." This finding compromises promptness and adequacy of students' class hours and thus affecting transition. This also implies that transition and accommodation are closely related. Siwolo (2010) asserts that trekking to the institution over long distances affects both students and teachers performance.

4.16. Influence of Accommodation on Students Transition

Having established that the rooms were inadequate, the researcher proceeded to assess whether this affected the students' transition. The researcher presented the students with a question asking them whether they had observed their colleagues dropout because of the state of rooms in the institution. Table 17 shows the results.

Responses	Frequency	Percentage
Yes	15	17.05
No	73	82.95
Total	88	100

Table 17: Influence of accommodation to students' transition.

From table 17, it can be seen that 15 (17.05%) of respondents said that they had observed colleagues drop out because of inadequacy of rooms in the institution and 73 (82.95%) observed that they had not experienced their colleagues dropout because of lack of accommodation. When interviewed the registrar said that; "These students find it difficult to cope with the stress of being day scholars and having to commute every day. This makes them break from learning and wait for the opportunity to become boarders in the subsequent academic years. Such breaks and times lead to dropping out or repeating classes which affects transition." This finding implies that accommodation affect students' transition. This also implies that transition and accommodation are closely related. Siwolo (2010) asserts that trekking to institution over long distances affects both students and teachers performance.

4.17. The Status of the Hostels in the Institution

The study also explored the status of the hostels in the institution. It was deemed important to establish the relationship between the status of hostels and students' transition rate. To answer the question, the students were asked to comment on the status of the hostels. The findings are as shown in table 18

Status of hostels in institution	Frequency	Percentage
Toilets in the hostels have very foul-smell disrupting sleep	32	36.36
Has no effect on academic goals since they are only used for sleeping	25	28.41
Broken windows allow wind into the rooms disrupting sleep	16	18.18
The rooms have so many rats that cause destruction	15	17.05
Men's hostels are not properly ventilated and they do not have sits or study tables	12	13.64
Rooms are very small leading to congestion as rooms are shared by 6 people	10	11.36
Hostels are not monitored leading to indiscipline such as drug abuse	8	9.09
The hostels are constructed very far from classes	5	5.68

Table 18: Status of hostels in institution

The study established that, out of 88 respondents who took part in the study, 32 (36.36%) students were of the opinion that toilets in the hostels are very are foul-smelling disrupting sleep, the response of 25 (28.41%) students were of the opinion that accommodation facilities had no effect on academic goals since they are only used for sleeping, a total of 16 (18.18%) student were of the opinion that broken windows in the hostels allowed wind into the rooms disrupting sleep, 15 (17.05%) students were of the opinion that their rooms had so many rats that caused destruction, 12 (13.64%) students were of the opinion that men's hostels are not properly ventilated and do not have sits or study tables, 10 (11.36%) students were of the opinion that rooms are very small leading to congestion as rooms were shared by 6 students, 8 (9.09%) students said that hostels were not monitored leading to indiscipline such as drug abuse and 5 (5.68%) students were of the opinion that the hostels were constructed very far from classes leading to lateness to classes by the students. However, the poor status of hostels in the institution did not affect students' transition.

This finding is in line with that of Okeno (2011) on school infrastructure and students performance in North Karachuonyo which had it that, the state of dormitories and hostels do not have any direct impact on students' transition as many schools still performed better but lacked dormitories and hostels. After all, quality of a structurally sound old institution building even though deteriorated or degraded inside, can be made appealing through human intervention.

The findings of the study further revealed that students would prefer toilets cleaned as many times as possible to get rid of foul smell, ensure ventilation in the rooms, repair broken windows for safety purposes and reduce congestion of students in the rooms for easy movement. This findings are confirmed by that of Fernando *et al* (1992) which concurs with that of Misker (2007) which noted that, many schools systems, particularly those in urban and high- poverty areas are plagued by decaying buildings that threaten the health, safety and learning opportunities of all students and particularly girls. Good and gender sensitive facilities tend to be an important precondition for students' learning provided that other conditions which support a strong academic program in the institution are present.

4.18. Comfort of Furniture in the Institution

The study explored the comfort that the students had in utilizing the furniture that was provided for them in the institution. To answer the question the students were asked to rate the comfort ability of the furniture in the institution using the given guideline. Table 19 shows the results.

Furniture	VG	G	A	P	VP	Mean
Dining tables & chairs.	3 (3.41%)	15(17.05%)	19(21.59%)	28(31.82%)	23(26.14%)	2.398
Classroom chairs, desks, lockers or benches	1 (1.14%)	5(5.68%)	24(27.27%)	31(35.23%)	27 (30.68)	2.114

Table 19: Comfort of furniture in the institution

The study found out that 3 (3.41%) of students rated the Dining tables and chairs as very comfortable, 15 (17.05%) of the sampled students said that the dining table and chairs were comfortable, 19 (21.59%) of the sampled students said that the dining tables and chairs were averagely comfortable, and lastly 51 (57.96%) of the sampled students observed that the dining table and chairs in the institution were not comfortable. The average of the response was 2.398 meaning that the Dining table and chairs were not comfortable. When asked to comment on the comfort of furniture in the institution, the registrar had this to say; "the furniture in the institution are inadequate and uncomfortable. The institution is making arrangements to increase the furniture and improve on the comfort." These findings imply that, many students are unlikely to enjoy their learning given the fact that the quality and adequacy of furniture in the institution is below average. Students' and teachers' comfort is indicated as the most important aspect of any institution environment (lemaster et al, 2009).

Majority of the respondents 58 (85%) had it that the comfort of the Classroom chairs, desks, lockers or benches in the institution was poor. however 1(1.14%) of the sampled students felt that classroom chairs, desks, lockers or benches were very comfortable, 5 (5.68%) of the sampled students said that the adequacy of the Classroom chairs, desks, lockers or benches was good, 24 (27.27%) sampled students said that the comfort of the Classroom chairs, desks, lockers or benches was average. The average of the response was 3.205 meaning that the adequacy of Classroom chairs, desks, lockers or benches in the institution was average. In support of this finding is the study of Lemaster *et al.* (2009) who posits that if the students are comfortable the learning becomes easier. Being comfortable is a combination of several factors; adequate usable space, noise control, lighting, temperature and climate control and sanitation. A classroom on the other hand is the most important area of an institution because students and teachers spend most of their time and is where learning processes takes place.

4.19. Status of Furniture in the Institution

Furniture as an aspect of school infrastructure is very important for learning to take place. From this background the study sought to explore the state and utilization of furniture in the institution. It was important to know whether the furniture in the institution provided the required comfort by the students and whether it had any effect on transition rate of students. Table 20 shows the findings.

Challenges of using furniture	Frequency	Percentage
Fear of losing assigned chairs and the problem of carrying them everywhere	51	57.95
Some furniture are broken and causes discomfort when using them	47	53.41
Lockers are not lockable exposing the students' property to theft	32	36.36
The furniture are weak causing a lot of strain and loss of concentration	30	34.09
There is inadequacy of furniture	20	22.73
Lack of decent and classrooms affects comfort of students hence poor performance	14	15.91

Table 20: Challenges faced by students in utilizing furniture

Out of 88 respondents who took part in the study, 51 (57.95%) students reported that students in the institution are assigned specific chairs which at times are stolen by other students. Students also have to move with this chair from one point to another and this was cumbersome, 47 (53.41%) respondents were of the opinion that some furniture in the institution were broken and this made the students feel very uncomfortable using them, 32 (36.36%) students said that lockers in the institution were not lockable exposing the students property to theft, 30 (34.09%) students said that the furniture were weak causing a lot of straining leading to loss of concentration, 24 (27.27%) students said that some furniture were broken and this made the students feel very uncomfortable using them, 20 (22.73%) students said that there was general inadequacy of furniture in the institution and 14 (15.91%) students were of the opinion that the institution did not have decent or good furniture. A classroom is the most important area of an institution because it is where students and teachers spend most of their time and is where learning processes takes place. Many students develop back problems because of the discomfort they experience in classes because of the furniture they sit on. It is therefore important to provide comfort in classrooms in order to realize high achievement hence transition. Studies of Frazier (1993) assert that when school buildings are in disrepair, student achievement suffers.

4.20. Students Opinion on Maintenance of Sanitation Facilities

The study sought to investigate the students' opinion on how the sanitation facilities are maintained in the institution. This study area was significant because there was need to know whether pit latrine bathrooms, waterborne toilets, disposal bins had any influence on transition rate of students. To answer the question the participants were asked to rate sanitation facilities in the institution. Table 21 shows the results of the findings.

Sanitation facility	VG	G	A	P	VP	Mean
Pit latrine	13(14.77%)	20(22.73%)	31(35.23%)	12(13.64%)	8(9.09%)	3.068
Bathrooms	4 (4.55%)	9 (10.23%)	19(21.59%)	25(28.41%)	31(35.23%)	2.205
Waterborne toilets	9(10.23%)	17(19.32%)	27(30.68%)	26(29.55%)	9 (10.23%)	2.898
Bins	5(5.68%)	19(21.59%)	28(31.82%)	33(37.5%)	3(3.41%)	2.886

Table 21: Maintenance of sanitation facilities.

From the results presented in table 21, out of 88 respondents who took part in the study, 31 (35.23%) respondents reported that the maintenance of the pit latrines was average, while 13 (14.77%) students said that the maintenance of the pit latrines in the institution was very good, 20 (22.73%) respondents had it that the maintenance of the pit latrines was good. however 12 (13.64%) students reported that the maintenance of the pit latrines was poor and lastly 8 (9.09%) students said that the maintenance of the pit latrines in the institution was poorly done. The mean score for the response was 3.068; this meant that the respondents were of the opinion that the proper maintenance of the pit latrines was averagely done. This implies that the cleanliness of the pit latrines had no influence on the students' transition.

This finding is in contrast with the studies of Lemaster et al, (2009) on learning environment which opines that, Cleanliness of the institution is an important aspect of the institution environment. Clean institutional environment not only lowers the threat of spread of illness, but also conveys a caring message to the students and teachers. The environmental quality of institution is always symptomatic of institution administrator attitude, public priority and institutional objectives.

The study also sought to understand the extent to which quality of bathrooms affected students' transition. In responding to the quality of the bathrooms a total of 4 (4.55%) students said that the maintenance of the bathrooms in the institution was very good, 9 (10.23%) reported that the maintenance of the bathroom was good, 19 (21.59%) reported that the maintenance of the bathroom was average, 25 (28.41%) students reported that the maintenance of the bathroom was poorly done. The mean score for the response was 2.205; this meant that the respondents were of the opinion that the maintenance of the bathroom was poorly done.

In the case of maintenance of the water borne toilets, the study sought to understand a total of 9 (10.23%) students rated the maintenance of the Water borne toilets as very good, 17 (19.32%) reported that the maintenance of the water borne toilets was good, 27 (30.68%) reported that the maintenance of the water borne toilets was average, 26 (29.55%) students reported that the maintenance of the water borne toilets was poorly done and lastly 9 (10.23%) students reported that the maintenance of the water borne toilets was very poorly done. The mean score for the response was 2.898;

This finding implies that, the maintenance of waterborne-toilets in the institution has little or no influence on students' transition rate. However the findings contradict the Studies of Lemaster *et al*, (2009) on learning environment which opines that, Cleanliness of the institution is an important aspect of the institution environment. Clean institutional environment not only lowers the threat of spread of illness, but also conveys a caring message to the students and teachers hence high rate of transition.

The study further found that, 5 (5.68%) students said that the maintenance of the Bins in the institution was very good, 19 (21.59%) reported that the maintenance of the Bins in the institution was good, 28 (31.82%) reported that the maintenance of the Bins in the institution was averagely done, 33 (37.5%) students were of the view that the maintenance of the Bins in the institution was poorly done and lastly 3 (3.41%) students reported that the maintenance of the Bins in the institution was poorly done. The mean score for the response was 2.886; this meant that the respondents were of the opinion that the maintenance of disposal bins was averagely done. This could also imply that, the students in the institution practice cleanliness or there are good mechanisms of disposing off dirt put in place and this has enabled the institution to maintain clean environment.

The findings of this study could imply that the sanitation facilities are averagely maintained and could cause little or no health problems. In support of this findings are the studies of Bhaw, (2005) which states that, regardless of where the institution is located, a healthy environment is comfortable and secure from danger. It radiates a sense of well being and sends a caring message. This confirms the comfort that students require at any educational level in order to enhance transition.

4.21. Adequacy of Sanitation Facilities in the Institution

The study sought to investigate the adequacy of sanitation facilities in the institution. To answer the question the students were asked to rate the adequacy of sanitation facilities in the institution using the given guideline. Table 22 shows the result.

Sanitation facility	VG	G	A	P	VP	Mean
Pit latrine	11 (12.5%)	38(43.18%)	25(28.41%)	10(11.36%)	4(4.55%)	3.477
Bathrooms	12(13.64%)	22(25%)	35(39.77%)	11(12.5%)	8(9.09%)	3.216
Water borne toilets	2 (2.27%)	9(10.23%)	13(14.77%)	26 29.55%)	38(43.18%)	1.989
Bins	6 (6.82%)	26 29.55%)	29(32.95%)	19 21.59%)	8(9.09%)	3.034

Table 22: Adequacy of sanitation facilities in the institution

From table 22, 11 (12.5%) students said that the adequacy of the pit latrines in the institution was very good, 38 (43.18%) respondents reported that the adequacy of the pit latrines in the institution was good, 25 (28.41%) respondents observed that the adequacy of the pit latrines in the institution was average, 10 (11.36%) students reported that the adequacy of the pit latrines in the institution was poor and lastly 4 (4.55%) students had it that the adequacy of the pit latrines was very poor. The mean score for the response was 3.144; this

meant that the respondents were of the opinion that the adequacy of the pit latrines was average. The findings show that inadequacy of pit latrines in the institution hamper learning as students reported that in some cases, they had to queue to use the toilets. This affected students' class time as part of their class time was spent queuing to use toilets.

Poor physical facilities still remain a major barrier to improving access to institutions of higher education in Kenya. Ideally, institution infrastructure should also be designed to provide access to students with special needs and be gender sensitive, especially in relation to health, hygiene and sanitation provision (World Bank, 2001).

In responding to the adequacy of the bathrooms in the institution, 12 (13.64%) students said that the adequacy of the bathrooms in the institution was very good, 22 (25%) reported that the adequacy of the bathrooms was good, 26 (29.55%) reported that the adequacy was average, 11 (12.5%) students reported that the bathrooms were poorly adequate and lastly 8 (9.09%) students reported that the bathrooms were very poorly adequate. The mean score for the response was 3.216; this meant that the respondents were of the opinion that the bathrooms were averagely adequate.

On responding to the adequacy of the water borne toilets, a total of 2 (2.27%) students said that the adequacy of the Water borne toilets in the institution was very good, 9 (10.23%) reported that the adequacy of the waterborne toilets was good, 13 (14.77%) reported that the water borne toilets was average, 26 (29.55%) students reported that the adequacy of water borne toilets was poor, and lastly 38 (43.18%) students reported that the adequacy of water borne toilets was poor, and lastly 38 (43.18%) students reported that the adequacy of water borne toilets was poor. The mean score for the response was 1.989; this means that the majority of the respondents were of the opinion that the adequacy of water borne toilets was poor. This finding reveals that there is a problem of toilets in the institution and there is a tendency of students queuing for this facility during break and lunch time breaks. This may impact negatively on the time management. School toilets and related facilities are reported to be a problem for many school going children as well as teachers, caretakers and school nurses (Croghan, 2002).

Sanitary disposal bins as an aspect of hygiene are very important institutions, especially where mixed gender or female boarding institutions are involved. However, majority of the participants who took part in the study observed that, disposal bins were adequate with 6 students representing (6.82%) reporting that the adequacy of the Bins of the institution was very good, 26 (29.55%) reported that the adequacy of the bins was good, 29 (32.95%) reported that the bins was average, 19 (21.59%) students reported that the adequacy of bins was poor and 8 (9.09%) students reported that the adequacy of disposal bins was very poor. The mean score for the response was 3.304; this means that the respondents were of the opinion that the bins were averagely adequate. Institution infrastructure is often directly linked to attendance, most often the average daily attendance rates.

In support of this finding are the Studies carried out by Fernando et al. (1992) which concurs with the one done by Mister (2007) noted that many institutions systems, particularly those in urban and high poverty areas which are plagued by decaying buildings that threaten the health safety and learning opportunities of all students and particularly female students.

4.22. Influence of Sanitation Facilities on Students' Transition

The study further sought to explore the influence of sanitation facilities on transition. The researcher therefore presented the students with a question asking them if they had observed students drop out of institution because of the state of sanitation facilities in the institution. Table 23 shows the results of the findings.

Response	Frequency	Percentage
Yes	0	0
No	88	100
Total	88	100

Table 23: Influence of sanitation on transition

From table 23 all the students 88 (100%) said that they had not observed other students drop out of learning because of the state of sanitation facilities in the institution. This finding reveals that the state of sanitation facilities in the institution has no impact on students' transition. This could also imply that the majority of the students are male students who can survive with minimal sanitary. It could also imply that the larger student population reigns from rural where such facilities are scarce and this makes the students comfortable with the few sanitary facilities in place.

4.23. Suggestions to Sanitation Problems

The study sought to seek the opinion of students on what should be done to improve the state of sanitation in the institution. This study was significant in that the information captured would be used to improve sanitation in the institution. Table 24 shows the responses of the participants.

Suggestions to sanitation problems	Frequency	Percentage
Increase the number of times toilets are cleaned in a day	59	67.05
Constructing more pit latrines	42	47.73
By introducing water flash toilets	31	35.23
Constructing more pit latrines	25	28.41
Have more toilets in the institutions to avoid cases of students lining up to wait for others	19	21.59
Emptying the pit latrines	15	17.05
Renovating the toilets and other sanitation facilities	14	15.91
Pit latrines should be washed with detergents	9	10.23
Improving the floors in the toilets and bathrooms	8	9.09

Table 24: Remedies to the problems arising from sanitation issues

From table 24, out of 88 participants who took part in the study, 59 students (67.05%) said that the institution should increase the number of times toilets were cleaned per day so as to ensure cleanliness of the facilities, 42 (47.73%) students observed that the institution should construct more pit latrines, 31 (35.23%) students said that the institutions should introduce water flash toilets, 25 (28.41%) students reported that the institutions should construct more pit latrines to address the problem of shortage of toilets, 19 (21.59%) students said that administration should ensure that there are more toilets in the institutions to avoid cases of students lining up to wait for others, 15 (17.05%) students were of the opinion that the institution should undertake emptying of the pit latrines, 14 (15.91%) students said that the institution should engage in renovating the toilets and other sanitation other sanitation facilities to improve on their state, 9 (10.23%) students were of the view that the pit latrines should be washed with detergents to improve on their cleanliness and lastly 8 (9.09%) students said that the institution should improve the floors in the toilets and bathrooms to rid them off cracks. This findings reveal that most students were of the opinion that more pit latrines are constructed to address the shortage of toilets, increase the number of times the toilets are cleaned per day to ensure the cleanliness of the facility and introduce water flash toilets.

The students' suggestions are in line with the views of Lemaster *et al* (2009) which had it that, Effective filters and cleaning should be functional so as to keep particulate welter such as dust out of the area. Odors can also destruct students but can be removed with good ventilation. Cleanliness of the institution is an important aspect of the institution environment. Clean institutional environment not only lowers the threat of spread of illness, but also conveys a caring message to the students and teachers. The environmental quality of institution is always symptomatic of institution administrator attitude, public priority and institutional objectives. Increasingly, communities have observed that deteriorating building of any type encourage looting vandalism, arson, dumping, drug traffic and other criminal use.

5. Summary of Findings

On establishing the influence of funding on students' transition rate, the study found that the students at Ramogi Institute of Advanced Technology (RIAT) lacked proper funding for their learning and for that reason most of them had fee arrears. 34 students (38.64%) students had fee arrears and 54 (61.36%) students did not have fee arrear. Most of the students had fee arrears more than the actual fee they paid per year increasing the chances of them being sent out the institution because of fee. Most of the students had more than 15,000 shillings as fee arrears. Considering the average amount paid as tuition is approximately 15,000 shillings then it means that most the students in the institution were under the risk of being sent away from the institution.

Students said that they had experienced their colleagues failing to transit because of fee arrears. 54 students (61.36%) said they had experienced their colleagues drop out because of fee arrears. This could be interpreted to mean that fee areas were a key reason for students dropping out of learning and therefore failing to make successful transition in their education. Lack of funding influenced dropping out to a very large extent according to most the heads of departments and students. 5 (62.5%) heads of departments and 25 (28.41%) students observed that fee arrears led to dropping out to a very high extent. The adequacy of the funding sourced from parents to finance the students education was average, however, no student was funded by the HELB loan, the adequacy of the scholarships that students received to fund their education was poor and the adequacy of the bursaries was for financing the students education was average and due to inadequacy of the sources of funding the students, most students had fee arrears which made them drop out of learning.

The analysis of institutional buildings and classrooms on students' transition rate in RIAT found that the institutional building and classrooms were inadequate. The adequacy of classrooms in the institution was below average, the adequacy of the kitchen was poor, the adequacy of the hostels was below average and that the adequacy of the halls in the institution was average. An exploration of the physical state of the buildings such as spacing, lighting, wall and roof quality revealed that they were either average or below average. For instance, the physical state of the classrooms was neither good nor bad but was average. Same was the case for the hostels and halls. In the case of the classroom, their physical state, according to the students was poor. The study found out that although the physical state of the institution's infrastructure was either average or below average it did not have an influence on transition. No students said that he had observed a colleague dropout of learning because of the poor state of buildings or classrooms. This finding is in contrast with that of Overbaugh (1990) on the relationship between physical environments to teacher professionalism revealed that, physical environment affect teachers and students in their performance. The study further emphasized the importance of environment features which affect students and teachers performance were classroom, furniture and class equipment.

Findings from the influence of teaching-learning materials on students transition rate in RIAT found out that there were teaching and learning materials that the students bought themselves. An interview with the heads of departments observed that the teaching and learning materials were bought by students and were many depending on the department that the students came from. Moreover, the students were of the opinion that the cost of buying the teaching and learning materials was high and the materials were bought very often. 72 students (81.81%) students said that they bought the materials at the beginning of the program during admission and that they were costly. Only 1 (1.14%) said that the cost was very fair and teaching-learning materials had a negative effect on the transition rate of students, 26 students (29.55%) out of 88 participants arguing for it.

On the situation of students' welfare and sanitation on students' transition in rate the study found that welfare in terms of adequacy of teaching and learning materials was largely below average. The library was poorly adequate according to the students, the adequacy of the classrooms was neither good nor bad, but was average, the computer library was poorly adequate and the workshops were averagely adequate. Only 9 (10.23%) respondents reported that they had observed fellow students drop out of learning because the state of teaching and learning resources. These results show that the teaching and learning resources did not affect students transition

in the institution. The study further found that welfare in terms of adequacy of accommodation facilities was poor. Though there were adequate beds, the adequacy of the rooms in which the beds were poor. Few students had observed students dropping out because of inadequacy of accommodation facilities, meaning that it was not such a significant factor in determining transition. 15 respondents representing (17.05%) said that they had observed students dropping out because of the adequacy of the rooms in the institution.

Regarding the students' welfare in relation to the adequacy and state of furniture in the institution the study found that the adequacy of dining tables, Classroom chairs, desks, lockers or benches in the institution was average. The study further explored the comfort that the students had in utilizing the furniture that was provided to them by the institution and the results were that majority of the students found it uncomfortable utilizing the dining tables, Classroom chairs, desks, lockers or benches in the institution. No student reported that they had observed a fellow student drop out of institution because of the adequacy or comfort ability of the furniture they were provided with by the institution.

The study explored adequacy of sanitation facilities in the institution and its influence on transition of students. The study found that the adequacy of the pit latrines, bathrooms, bins and sinks was average. The adequacy of water borne toilets was below average. Though the welfare of the students in terms of adequacy of sanitation facilities was either average or below. It did not have an influence on the transition as all the students said that they had not observed other students drop out because of the state of sanitation facilities in the institution.

6. Conclusions

The purpose of the study was to capture the influence of teaching-learning resources on the transition of students. From the summary of the findings the study made the following conclusions; that gender, type of scholar among the demographic variables had significant influence on the transition of the students in Ramogi institute of advanced technology. However, it was observed that years of experience of HODs had no influence on students' transition.

The study concluded that lack of funding influenced high dropout of students and therefore failing to make a successful transition. Reliable sources of funding would reduce the dropout rate and help in improving transition. Therefore, funding of students' education by different bodies such as; HELB, scholarships, bursaries among others would influence students' transition.

On objective two, the study concluded that, the physical state of the institution's infrastructure enhances effective learning process. Students and teachers enjoy learning in a friendly and comfortable environment hence better transition. Lack of proper infrastructure would compromise students' achievement.

Teaching and learning materials were a major ingredient in enhancing learning as they provided hands on experience. Students learn better when they see and touch than when they only hear. Therefore, teaching-learning materials were positively associated with transition of students.

Adequate and stimulating environment is significant in an institution. Sanitation facilities such as disposal bins, good toilets, bathrooms and waterborne toilets create a healthy environment for learning. It is therefore important that they are provided in order to enhance achievement.

7. Recommendations

- i. The institution administration should source for alternative sources of funding for students other than those from parents, HELB loan, sponsors and bursaries. The institution should seek to undertake income generating projects such as agricultural projects.
- ii. The study further recommends that stakeholders redouble their concerns in development of more hostels to cater for the high demand by the students admitted in the institution.
- iii. The study recommends that the institution buys its own teaching and learning materials that very needy students can use rotationally and the institution should ensure that these teaching and learning materials are stored safely in order to minimize on losses, breakages and frequency of buying new ones.
- iv. The study also recommends that the institution mobilize stakeholders to assist in improving the welfare of the students in terms of increasing the number of rooms, having adequate teaching and learning materials, providing adequate and good furniture and improving the state of sanitation facilities.

8. Suggestion for Further Study

- i. The study suggests that similar studies need to be done in other TIVET institutions in other provinces so as to compare with the findings of this study.
- ii. The study suggests that future researcher should explore the contribution of institution personnel on the poor transition rate from third year to graduation. This is because this study established that there was a low transition rate of about 48.81% from third year to graduation. Future researcher should therefore investigate the influence of the lecturers' delivery of the curriculum content to the low transition rate.
- iii. The study also recommends that future researchers should do the same study but control for the contribution of discipline of students. This is because discipline is an intervening variable that may have hidden influence on the transition of students.

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