TEACHING LEARNING RESOURCES AND STUDENTS' ACADEMIC PERFORMANCE IN MATHEMATICS IN UNIVERSAL SECONDARY SCHOOLS OF JINJA DISTRICT.

BY

MASETEE JONAH.

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A RESEARCH REPORT SUBMITTED TO THE FACULTY OF EDUCATION, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BACHELOR'S OF SCIENCE WITH EDUCATIONKAMPALA INTERNATIONAL UNIVERSITY

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DECLARATION

I Masetee Jonah declare to the best of my ability that this research thesis is as a result of my own efforts and has never been submitted for any academic award to this university and any other university or institution.

Signed……. Date…20th/09/2019…….

MASETEE JONAH

STATEMENT OF APPROVAL

This is to certify that this research thesis has been signed with my approval as university supervisor.

Signed …….. Date 20/09/2019

Mr. NABISO SALIM

DEDICATION

I dedicate this work to my beloved family for the support that has laid for me an academic foundation that has led me to this level and lastly to all my friends for their motivation and developmental ideas.

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In a special way, I would like to thank the almighty God for the gift of life, knowledge and strength that enabled me to conduct my research successfully. Without the guidance from God, I believe producing this kind of work would not have been easy.

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LIST OF ABBREVIATIONS AND ACRONYMS

B.O.G	Board of Governors
DPs	Development Partners
E.F.A	Education for All
USE	Universal secondary Education
UCE	Uganda Certificate of Education
MoE	Ministry of Education
NGO	Non-governmental organization
PTA	Parents Teachers Association
SPSS	Statistical Package for Social scientists
STR	Students-Teacher Ratio
TLR	Teaching and Learning Resources
UNESCO	United Nations Educational, Scientific and Cultural Organization

ABSTRACT

Education is a fundamental human right, and a key input in production and development of an economy. This explains why countries worldwide plan for and increase budgetary allocations to fund various educational programmes each financial year. There is however concern on the quality of education offered and performance of students in national examinations. The purpose of this study was to examine the influence of teaching and learning resources on students' performance mathematics in secondary schools in Jinja district. Four objectives were formulated to guide the study; the objectives of the study were to determine how availability of teaching and learning materials used in mathematics affect students' performance, which was done by determining the availability of learning materials utilized in schools, the study also established how adequacy of physical facilities and human resources influence students' performance and also assessed the extent of resource utilization and its effect on students' performance in mathematics in Jinja district, following provision of teaching and learning resources by the government to the public secondary schools. The study used descriptive study design, and data was collected using three sets of questionnaires for the head teachers, teachers and students. The target population consisted of all the universal secondary schools in the district, their head teachers, teachers and students. The sample consisted of 6 principals, 18 class teachers and 240 students. Data was analyzed using descriptive statistics, using Statistical Package for Sciences (SPS), the analyzed data was then presented using frequency tables, means, percentages, pie charts and bar graphs. The study found out that teaching and learning materials were available and are utilized in schools, especially those used in classroom instruction, like chalks, dusters, rulers and charts except physical facilities are lacking and there's gross inadequacy of human resources. This resulted to overstretched resources with annual increase in enrolment rates thus compromising the quality of education. Therefore the government should allocate more funds for TLR provision to improve the status and condition of physical facilities and employment of more teachers for the USE schools to be effective. Based on the study findings, it is recommended that similar research could be carried out in other parts of Uganda since different parts of the country have different characteristics. Further research could also include a study on Integration of ICT and e-learning to complement human resources.

formerly Uganda Institute of Education (UIE) to form itself into an educational publishing parastatal. Development Partners (DPs) have recently supported sole source textbook supply monopolies from the private sector in Ethiopia and at secondary level in Uganda. Sole source supply is often justified on the basis of lower costs and has on the other hand strongly contributed to complaints by schools with regard to poor quality textbooks and irregular, inaccurate and ineffective book distribution (DFID,2007).

In recent years, access to computers and the internet has generated interest in the provision of e-materials. Where the internet is unavailable, unreliable or unaffordable, the development of local school networks and the provision of e-materials to schools on compact disks (CDs/ flash disks can support e-learning via school servers and networks. But e-based learning in many developing countries and transitional economies have proved to be very expensive. TLM are often seriously underfunded alongside physical facilities and human resources. It is not surprising; therefore, that literacy has become a major problem in many countries when students and teachers have so little to read (The World Bank, 2001). The physical, material, human and financial resources invested in schools influence not only the education provided to students but also aspects of teachers and student motivation and consequently the educational outcomes.

The Organization for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA) shows that resource shortages hinder instruction and lower student performance (OECD, 2007). In addition, inequalities in student's educational performance often reflect disparities in the resources invested in schools (OECD, 2008). Johan (2004) states that educational outcomes in schools are closely linked to utilization and adequacy of teaching and learning resources in different ways; poor utilization, underutilization, unqualified educators brings forth low educational achievement. The inadequacy of physical and material resources in schools is a major factor responsible for learning outcome of students. Schools that do not have adequate facilities such as workshops, laboratories, classrooms, teaching learning materials are unlikely to post good results.

Studies done in the past on the relationship between TLR and performance include, Likoko, Mutsotso & Nasongo (2013) in the study on adequacy of instructional materials and physical facilities and their effect on quality of teacher preparation in colleges in Bungoma county and a study done by Mbaria (2006) on the relationship between learning resources and performance in secondary schools in Bukwo district. All the above studies indicate that TLR were higher in higher performing schools than in low performing schools and that there is a significant difference in resource availability in the higher performing schools and low performing schools. Also indicate that most institutions are faced with challenges such as lack of adequate facilities like libraries and inadequate instructional materials and the factors tend to have a negative effect on the quality of graduates produced. Adan (2011) in the study on challenges faced by head teachers in implementing USE program in Jinja also posits that there is a major challenge on adequacy of physical facilities in most schools in the district, the only adequate materials available are textbooks, but the schools are in dire need of facilities like classrooms, toilets, desks. Chairs, laboratories as well teaching aids, and recommended that a larger percentage of USE funds be diverted to cater for TLR.

Provision and utilization of facilities is the responsibility of stake holders in education. (National Policy on Education, 2012). The Ugandan government ensures the implementation of the national policy on education by providing an enabling environment. Parents are also involved in purchase of resources in schools and more so in putting up physical facilities through what is popularly referred to as Parents Teachers Association (PTA) projects. With the introduction of USE, the government has experienced challenges with provision of TLR in schools. The Kamunge report (1988) recommended the establishment of USE as a way of expanding quality day secondary education, despite all these, planning and provision for TLR has remained a challenge in today's FDSE with low learning outcomes over the years.

1.2 Statement of the problem

Teaching and learning resources (TLR) are the most visible components of government educational provision and their absence is often noted by stakeholders. The Ugandan government has taken a number of measures in the previous years to improve and

promote USE, this is evident in the increased expenditure channeled to this program. One of the policy statements is that a great proportion of education expenditure should be channeled to TLR. (National Policy of Education (NPE), 2012). If this policy were properly planned for and implemented, there should be enough TLR in most if not all secondary schools.

TLR play a paramount role in the teaching and learning process and inevitably the student's academic performance. This calls for provision of adequate TLR in USE. The USE are faced with a mirage of problems which include inadequate provision of TLR as a result of poor planning and also USE program embarked on existing TLR in schools with increased enrolment. The impact of USE resulted into the intended increase on enrollment on its first year of implementation and this immediately led to constrain on existing TLR such as teachers, classrooms, teaching and learning materials (Gatende, 2010).There has been a public outcry about poor academic performance in USE, especially in Walukuba County which has a total of 12 public secondary schools of which 6 are USE. In a world of international competition, academic performance in Jinja has been on the decline characterized by poor academic performance in the Certificate of Secondary Education.

1.3 Purpose of the study

The purpose of the study was to examine the influence of teaching and learning resources on students' academic performance in UCE in mathematics Universal Secondary Education in Jinja District, Walukuba County, Uganda.

1.4 Objectives of the study

i. To determine how the availability of teaching and learning materials used in teaching and learning in USE schools in Jinja district affect students' academic performance in UCE.
ii. To establish how adequacy of human resource influence students' academic performance in mathematics in UCE in USE in Jinja district.
iii. To assess extent of resource utilization and its effect on students' academic performance in mathematics in UCE in USE schools in Jinja district.

1.5 Research questions

The research questions of the study were:

i. In what ways does availability of TLM used in USE in Jinja district affect students' academic performance in mathematics in USE?
ii. How does adequacy of human resource influence students' performance in mathematics in UCE in USE in Jinja district?
iii. What is the extent of resource utilization in USE in Jinja district?

1.6 Significance of the study

The research aimed at assessing the influence of TLR on students' performance in mathematics in UCE in USE whose results may be useful to various institutions and education authorities involved in policy formulation, development, implementation and in formulating policies to improve adequacy of TLR in schools. It was also hoped that the study would consequently increase literature on availability of TLR to assist education evaluators establish ongoing education quality monitoring networks and improvement processes, to guide teachers to improve use of TLM by using instructional strategies for appropriate delivery of curriculum; hence inform policies in teacher education. The research findings may also be used to form a basis for further research involved in planning for TLR used in schools

1.7 Limitations of the study

Limitations were factors which would affect the study (Nachmias&Nachmias, 2009). Since the study aimed at finding out the influence of TLR on students' academic performance in mathematics UCE in USE schools, respondents may have reservations to share information with regard to adequacy of resources in their schools in relation to performance since they may mistake the researcher to be on a fault finding mission. But the researcher physically visited the schools and explained that the study aim was only for academic purposes.

1.8 Assumptions of the study

The following assumptions were made in this study; that USE schools meets the required standards by the Ministry of Education to offer secondary education; that students admitted

in these schools had met the minimum entry requirements and; that the schools have qualified teachers as per the requirements of the Ministry of Education.

1.9 Definitions of significant terms

This section gives definition of all significant terms as were used in the study.

Academic performance refers to school mean score in UCE performance

Academic qualification refers to the highest level of schooling attained by a teacher

Access refers to making education affordable or available to the targeted groups .

Adequacy refers to sufficiency of TLR for teaching and learning process.

Assess refers to making judgment of TLR or evaluate the nature and quality of school resources.

Effectiveness refers to maximizing utilization of resources provided .

Finance refers to management of revenues used to pay for TLR in schools.

Universal Secondary Education refers to the education provided by the government in the second cycle of a school system, the parent does not incur tuition and boarding expenses since the former is paid by the government and the student goes back home after school.

Human resources refers to personnel or a workforce of an institution that implements a school program so as to meet set goals

Influence refers to the power to affect or have an effect on something

In-service training refers to training of teachers once employed

Resource utilization refers to use of teaching and learning items, physical facilities and human resources to meet goals.

Students' academic performance tests/ examinations refers to educational achievements of students

Teaching and learning resources (TLR) refers to all human and non human resources that aid the teaching and learning process and include TLM (material resources) physical facilities and human resources (teachers)

Teaching materials refers to equipment and facilities used in the teaching and learning process like, graph boards, charts, chemicals and equipment

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the study variables, hence deals with the concept of teaching and learning resources, their availability and adequacy in USE schools and extent of utilization and the influence of utilization of TLR on students' UCE performance in mathematics. The literature review gives an evaluation of the TLR in use in the current USE and makes references to studies that have been done in the past in the study area.

2.3 Teaching and learning resources and academic performance

TLR comprises basically three components: material resources, physical facilities and human resources (DFID, 2007) Studies done in the past with regard to availability of TLR in education reveal that TLR are not always available in schools. This inadequacy of TLR has been of serious concern to educators. According to Lyons (2012) learning is a complex activity that involves interplay of students' motivation, physical facilities, teaching resources, and skills of teaching and curriculum demands. Availability of TLR therefore enhances the effectiveness of schools as they are the basic resources that bring about good academic performance in the students. The necessary resources that should be available for teaching and learning include material resources, human resource such as teachers and support staff and, physical facilities such as laboratories, libraries and classrooms.

TLR help improve access and educational outcomes since students are less likely to be absent from schools that provide interesting, meaningful and relevant experiences to them. These resources should be provided in quality and quantity in schools for effective teaching-learning process. Several studies have been conducted on the impact of instructional materials on education. Momoh (2010) conducted a research on the effects of instructional resources on students' academic performance in West Africa School Certificate Examinations (WASCE). The achievements of students in WASCE were related to the resources available for teaching. He concluded that material resources have a significant effect on student's achievement since they facilitate the learning of abstract concepts and ideas and discourage rote-learning. When TLR are inadequate education is

compromised and this inevitably is reflected in low academic achievement, high dropout rates, problem behaviors, poor teacher motivation and unmet educational goals. The study focuses on the influence of TLR on students' UCE performance in mathematics since the introduction of USE in Jinja District.

2.3.1 Influence of availability of Teaching and learning materials on students'performance in mathematics in UCE.

Material resources include textbooks, charts, maps, audiovisual and electronic instructional materials such as radio, tape recorder, television and video tape recorder. Other category of material resources consist of paper supplies and writing materials such as pens, eraser, exercise books, crayon, chalk, drawing books, notebooks, pencil, ruler, slate, workbooks and so on (Atkinson, 2000).

Adeogun (2001) discovered a very strong positive significant relationship between instructional resources and academic performance. According to Adeogun, schools endowed with more materials performed better than schools that are less endowed. This corroborated the study by Babayomi (1999) that private schools performed better than public schools because of the availability and adequacy of teaching and learning materials. Mwiria (1985) also supports that students' academic performance is affected by the quality and quantity of teaching and learning materials. The author noted that institutions with adequate facilities such as textbooks stand a better chance of performing well in examination than poorly equipped ones. Therefore, poor performance could be attributed to inadequate teaching and learning materials and equipment. The study will look into the adequacy of TLM in USE in Jinja district.

2.3.2 Influence of adequacy of human resources on students' academic performance in mathematics in UCE

The adequacy of TLR determines the success or failure of the educational system.

A method of determining the extent of teacher's adequacy is through Students Teacher ratio (STR) which is the number of students assigned to teachers for teaching. STR is used to determine the number of students that are to be allocated to a teacher in a given

educational level. The STR shows a teacher's workload at a particular level of education. It also helps in determining the number of teaching manpower needed for a projected student's enrolment. Thus, it could be used to determine either teachers are over-utilized or underutilized (Afolabi, 2005).

An educational institution's human resources consist of teachers and other support staff who engage in the process of teaching and learning. They include, laboratory assistants, cooks amongst others. There should be optimum use of the available human resource especially teachers if good performance is to be achieved. Republic of Uganda (RoK, 2005) where teacher shortage exists, the head teacher and Board of Management (BOM) should hire on temporary basis, as there are very many trained but unemployed teachers. The study will find out the adequacy of human resources in USE Jinja district.

2.3.3 Extent of utilization of TLR in mathematics in USE

The utilization of resources in education brings about fruitful learning outcomes since resources stimulate students learning as well as motivating them. A common way to examine the utilization of education resources is to analyze school expenditure. This is because school expenditures constitute the bulk of all resources devoted to schooling and they are tractable instruments of education policy (Meghir, 2002). Since the inception of USE policy, access to secondary education has gone up with the number of students enrolling in secondary education rising from 1.3 million in 2009 and 2.1 million students this year, raising the transition rate from 64% to 77% over the period.("USE', 2018) led to overcrowded classrooms and overutilization on existing TLR. (KESSP, 2010) According to SACMEQ (2003) Survey revealed that few schools provided libraries or reading corner to enable literate environment UNESCO (2014).

A school should adequately utilize the available facilities to advance learning opportunities offered to pupils. It is the responsibility of the head teacher to ensure that there is adequate classroom space to enable teaching learning process to take place and should ensure that all facilities are efficiently and effectively utilized so as to achieve educational goals and improve learning outcomes..

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with the methodology used in carrying out the research. It highlights the research design, target population, sampling techniques and sample size, research instruments, reliability and validity of the research instrument, data collection procedures and data analysis techniques.

3.2 Research design

The study is to be carried out using a descriptive research survey design. Orodho (2005) notes that a descriptive research survey design is an appropriate way of evaluating educational programmes as educational activities operate in a social context. According to Krishnaswami (2001), this design is a fact finding study which involves collecting data directly from a population thereof at a particular time. This design is ideal for this study because the study is to conducted in a setting that requires direct responses from the respondents while investigating existing phenomenon without manipulating the variables. The design also allows the participants to describe and provide their opinions regarding the variables being studied in detail.

3.3 Target population

Nachmias and Nachmias (2009) define the target population as the entire set of relevant units of analysis or data. The target population of this study comprises of all the 6 USE schools in Jinja district, their principals and teachers. There are about 2400 students and a total of 90 class teachers in the district and the study targeted all of them. (DEO, Jinja district) The principals are the supervisors of TLR and implementers of USE in their specific schools and are able to supply accurate information with regard to availability of TLR in their schools. The class teachers on the other hand, are the implementers of the USE hence directly utilized the available TLR and are therefore in the best position to provide reliable information on TLR availability, utilization and adequacy. The students also indicated their interaction with the available TLR in their schools.

3.4 Sampling techniques and sample size

Sampling refers to selecting a given number of subjects from a target population so as to represent that population (Kombo & Tromp, 2005). In this study, a census will be used as all USE schools in the district will be studied. While simple random sampling will be used in selecting the students and teachers in each school. Kombo & Tromp further state that in simple random sampling all the individuals in the defined population have an equal and independent chance of being selected as a member of the sample size. The two methods are to be used in this study. According to Gay (1992) 20% is adequate enough to represent a small population while 10% to represent a large population. Random sampling will be used to ensure a fair representation of all the groups. The researcher will choose senior three students since they have stayed long enough in the school compared to form one students and two students and form four students will be left out so as to allow them prepare for their U.C.E exams.

Table 3.4.1 sample size

Target population	N	Sample size (n)	%
Principals	6	6	100
Class teachers	90	18	20
Students	2400	240	10
Total	**2496**	**264**	**10**

3.5 Research instruments

Mugenda (2003) observe that the use of questionnaires is a popular method of data collection in education because of the relative ease of cost effectiveness with which they are constructed and administered to the large samples. Observations, questionnaires and content analysis were the methods of data collection; observations were done on physical facilities for teaching and learning. Questionnaires will be generated with both open and close ended questions to the head teachers, class teachers and students.

The research has three categories of questionnaires; the principals' questionnaire includes basic demographic data on their gender, length of service and qualification; school demographic characteristics like, school enrolment and UCE performance for the last five years, information on availability, adequacy and frequency of use of TLR. The teachers' questionnaire as well includes basic demographic data on teachers' gender, length of service and qualification and teaching subject; availability of TLR in their schools and extent of resource utilization while the students' questionnaires also includes basic demographic data on age, also evaluates the presence, condition and size of physical facilities in their schools, availability and adequacy of TLM, in their school and availability of human resources and expected grade at the end of the programme. Document analysis involves sourcing secondary data on results of UCE for the period 2013-2018 which was obtained from the DEO's office and analyzed with regard to performance.

3.5.1 Validity of the instrument

Mugenda and Mugenda (2003) says validity has to do with how accurately the data obtained in the study represent the variables of the study. Construct validity is the degree to which a test measures what it claims to measure, that is giving a legitimate operationalization in a study in relation to the theoretical constructs. To ensure validity, expert judgment is sought where the researcher avails the instruments to experts to analyze. The advice given is used to improve the instruments. This is conducted prior to the actual research where two schools are involved; these two schools are not included in the sample study and were randomly selected from the neighboring Buikwe district which has similar characteristic of schools as those in Jinja Based on the analysis of the piloting, modification and removal of ambiguous or unclean items such as questions, inaccurate responses or indicated weaknesses is done to attract appropriate responses from the respondents.

3.5.2 Reliability of the instrument

Reliability concerns the degree to which a particular procedure gives similar results over a number of repeated trials (Orodho, 2013). The instruments in this category are the same for piloting and actual study. Test retest is conducted in the piloting schools in a span of two weeks apart, a correlation coefficient between the first and second results is computed using the Pearson product correlation coefficient which is generated using the statistical package for social scientist (SPSS) software to determine reliability. According to Nachmias (2009) positive coefficient of over 0.7 is considered to be reliable, and the higher the coefficient the more reliable the instruments.

The formula used for the calculation of r is

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

Where

r = pearsons correlation coefficient x = values in first set of data

y = values in second set of data

N = total number of scores

(Kombo& Tromp, 2006)

3.6 Data collection procedures

A research permit to conduct the study is sought from the National Commission for Science, Technology and Innovation (NACOSTI), the researcher also is to get consent from Jinja District Education Officer (D.E.O) so as to carry out the study in the district. Thereafter the researcher visits the sampled schools to introduce herself to the principals to seek consent to carry out research in their schools and also arrange on when to interview the principals. The questionnaires are then delivered by the researcher to the respondents in their respective schools for self-administration. For accuracy and consistency the respondents completes the questionnaires as the researcher waits and collects on completion.

3.7 Data analysis techniques

Data analysis refers to the process of evaluating data analytically and logically so as to examine each component of the data that is collected using the research instruments. After data collection, the instruments are checked for completeness and errors, the questionnaires are then be arranged, coded and entered into the computer using Statistical Package for Social Science (SPSS) where it is analyzed. Descriptive statistics is used to analyze quantitative data by filling frequencies and percentages presented in table, charts, and graphs. Open ended questions and observations are analyzed qualitatively in narrative form and also presented in form of tables.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter contains the findings of the data analysis of the study together with their interpretations. All themes discussing the same research questions were presented and analyzed together. The chapter begins with the demographic information of the respondents and schools followed by analysis, presentations, interpretation and discussions of research findings based on the respondents' and schools' demographic characteristics, followed by research questions. Tables, bar graphs and pie charts are used to present the findings while frequencies, means and percentages are used to discuss the findings.

4.2 Questionnaire return rate

Completion rate is the proportion of the sample that participated as intended in all the research procedures. All the 6 head teachers, 18 class teachers and 240 students sampled, filled out and returned the questionnaires, which was a 100% return rate respectively. It is usually assumed that the higher the response rate, the more likely the results are representative of the population provided the sampling is appropriate, hence 100% return rate is deemed as an accurate representation of the population responses (Mulusa, 1988). A summary of the questionnaire return rate is shown in the Table 4.1.

Table 4.1: Questionnaire completion rate

Respondents	Expected responses	Actual responses	Percent
Head teachers	6	6	100.0
Class teachers	18	18	100.0
Students	240	240	100.0
Total	**264**	**264**	**100.0**

4.3 Demographic information of the respondents and schools

The demographic information of the head teachers and teachers was based on their gender, academic qualification and length of service in the current school and duration of teaching for the teachers. The demographic characteristics of students covered in this section include their age and duration in current school, while the demographics of the school include the schools' enrolment trends, UCE performance in mathematics for the last five years, number of streams and number of students per class. Demographic characteristics give a clear understanding of the respondents and institutions included in the study.

4.3.1 Head teachers' and teachers' gender

The head teachers and class teachers were asked to indicate their gender. The data is presented in Table 4.2

Table 4.2: Headteachers' and class teachers' gender

Gender	Head teachers		Class teachers	
		Percent		Percent
Male	6	100	12	66.7
Female	0	0	6	33.3
Total	6	100	18	100

Data on the gender of the head teachers indicated that (0%) were female while 6(100%) were male. Data on class teachers shows that 6(33.3%) were female while 12(66.7%) were male. This shows there is an appropriate gender distribution among class teachers but there were no females among the head teachers. Their gender distribution was deemed appropriate and would not have in any way affected the researcher in gathering information about adequacy of TLR and USE policy in their schools.

4.3.2 Head teachers' and teachers' academic qualifications

The head teachers and class teachers were asked to indicate their highest academic qualifications. The data is presented in Table 4.3.

Table 4.3: Distribution of head teachers' and class teachers' responses on academic qualifications

Qualification	Head teachers		Class teachers	
	F	Percent	F	Percent
Phd.	-	-	-	-
Master of Education	2	33.3	-	-
Bachelor of Education	4	66.7	16	88.9
Diploma of Education	-	-	2	11.1
Total	**6**	**100**	**18**	**100**

Findings indicated that the majority of the head teachers, 4(66.7%), had a bachelor of education degree while 2(33.3%) had master of education. Although most teachers, 16(88.9%), had a bachelor of education, 2(11.1%) had diploma of education. These findings indicate that the head teachers and class teachers in the district were professionally qualified hence they had the best skills to implement USE and also cope with their teaching tasks. Also the high number of teachers who had B. Ed level of qualifications was probably due to the fact that most universities have opened up opportunities for further learning such as school based programmes at an affordable cost. This has provided the diploma teachers with an opportunity to join the ranks of the B.Ed teachers. Again most of the diploma teachers training colleges have been upgraded to university campuses and therefore very few diploma teachers are annually employed by the TSC. None of the teacher respondents had a master of education degree, probably because a substantial number of teachers were comfortable with the B.Ed level of qualification hence do not find the need to pursue masters degrees. This was perhaps due to the fact that they perceived master's programme to be quite expensive and time consuming and after all not accompanied by a substantial pay

4.3.3 Head teachers' length of service in current school

The head teachers were asked to indicate their length of service in the current school. The data is tabulated in Table 4.4.

Table 4.4: Head teachers' length of service in the current school

Length of service	**Head Teachers**	Percent
1 -3 years	**2**	**33.3**
4-6 years	3	50
7-9 years	-	-
Over 9 years	1	17.7
Total	6	100

Findings in Table 4.4 revealed that half of the head teachers population in the district 3(50%) had between 4-6 years experience on managing their current schools on the other hand 2(33.3%) of them had managed their schools for 1-3 years. Only 1(16.7%) had stayed

in the school for over 9 years. Based on these results, it can be concluded that majority of the respondents had worked at current stations long enough, so they had enough experience, and were in a position to give useful insights into the analysis of TLR available in their schools and challenges experienced in the implementation of Universal secondary education.

4.3.4 Teachers' length of service

Teachers were asked to indicate their length of service. The findings are shown in figure

Figure 4.1: Teachers' length of service

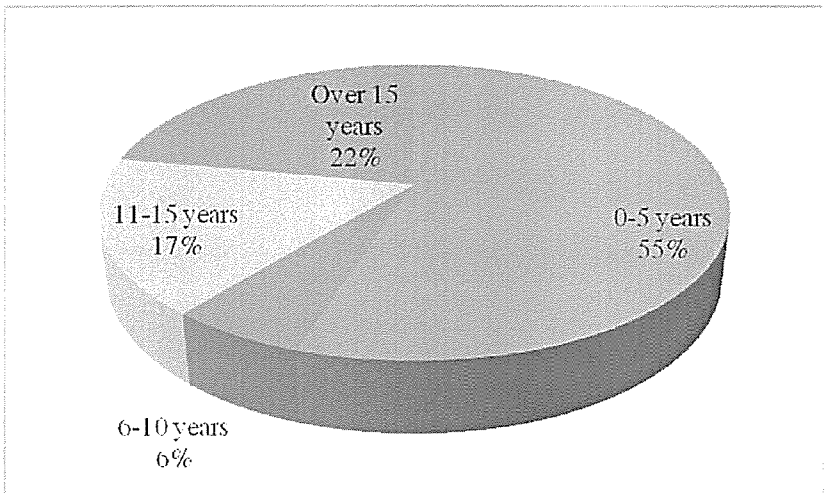


Figure 4.2: Distribution of teachers' teaching subjects

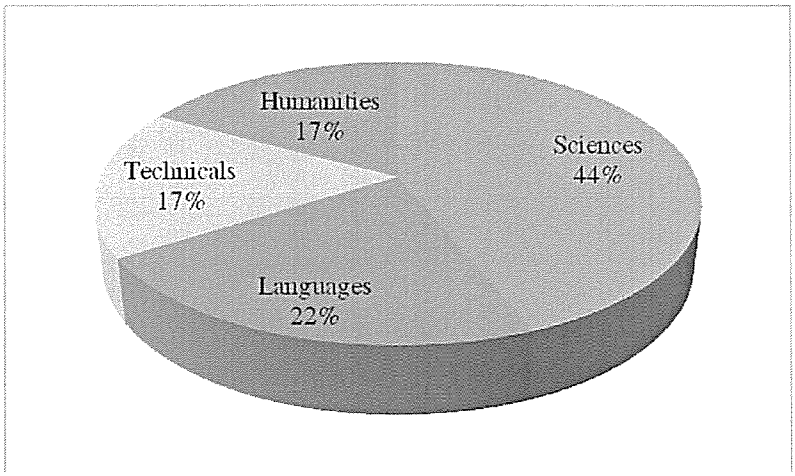


Figure 4.2 indicated that there were more science teacher respondents 8(44.4%), followed by languages 4(22.2%). Humanities and technicals accounted for 3(16.7%) each. This trend depicts the current status of most schools putting more emphasis in science subjects as compared to humanities; hence a probable contributory factor to low mean scores since high grades are obtained by an aggregate of all grades obtained across all the subjects.

4.3.6 Teachers' number of lessons per week

The teachers were also asked to indicate the number of lessons they taught per week, the results shown in figure 4.3.

Figure 4.3: Number of lessons per week

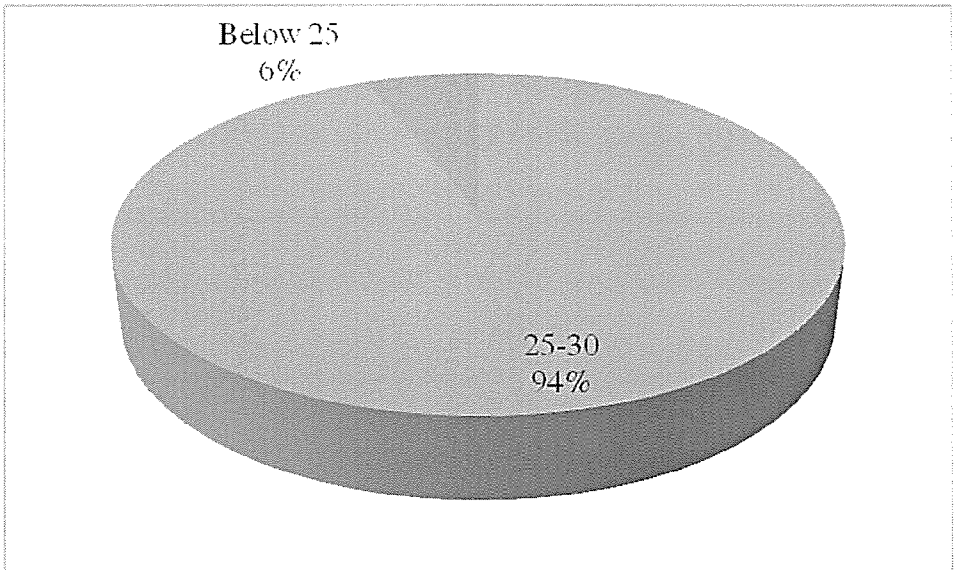


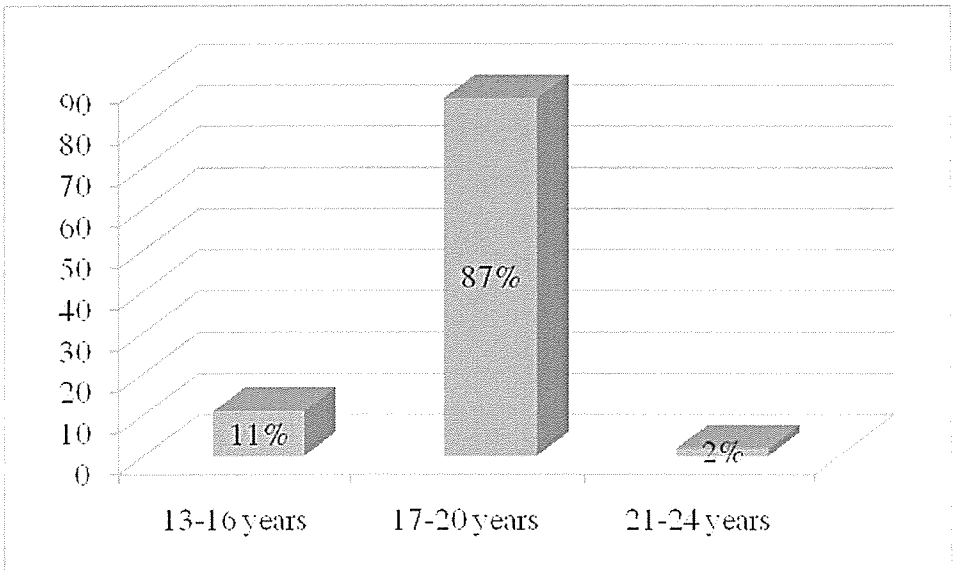
Figure 4.3 indicates that majority of teachers 17(94.4%) had 25-30 lessons per week, with the highest number of teachers having the maximum teaching loads as compared to only 1(5.6%) who had below 25 lessons per week. This indicates that most teachers in the district are at full lesson load capacity and unable to take more lessons with increasing annual enrolments in the schools. This is because the MoE recommends a minimum load of 28 lessons which is quite high to enable a teacher adequately prepare for lessons and handle all other administrative roles in the

school, this may explain why head teachers have decided to employ teachers under BOM, so that teachers workload is reduced to a maximum of 30.

4.3.7 Students' age distribution

The students were asked to indicate their ages, their age distribution shown in figure 4.4.

Figure 4.4: Students' age distribution



The findings in figure 4.4 revealed that, 208(86.6%) of the students were aged between 17-20 years, which is the appropriate average age of form three students. The study targeted form three students since their age and duration was deemed appropriate for the study since form three students had stayed long enough in the schools hence were able to provide accurate information necessary for the study. Other students, 26(10.8%) were aged between 13-16 years could have probably started schooling at an earlier age than recommended and 6(2.6%) were aged between 21-24 years, who probably repeated classes, started schooling late or dropped out of school at a certain level of education before resuming hence variation in their ages.

4.3.8 Students' duration in the current school

The students were asked to indicate their duration in the current school, the findings are shown in Table 4.5.

Table 4.5: Students' duration in the current school

Number of years	F	Percent
3 years	234	97.5
4 years	6	2.5
Total	**240**	**100**

The study sought to establish the duration the students had spent in their current schools, from the findings in Table 4.5. Majority of the form three students 234(97.5%) had spent 3 years in their current school, only 6(2.5%) of the rest of the respondents had spent four years in their current school, the latter could be attributed to students who might have repeated classes due to poor performance or dropped out of school and rejoined hence stayed for four years hence taking longer period in school.

4.3.9 Number of streams in schools

The head teachers were asked to indicate the number of streams of their schools, the data is as shown in figure 4.5

Figure4.5: Number of streams

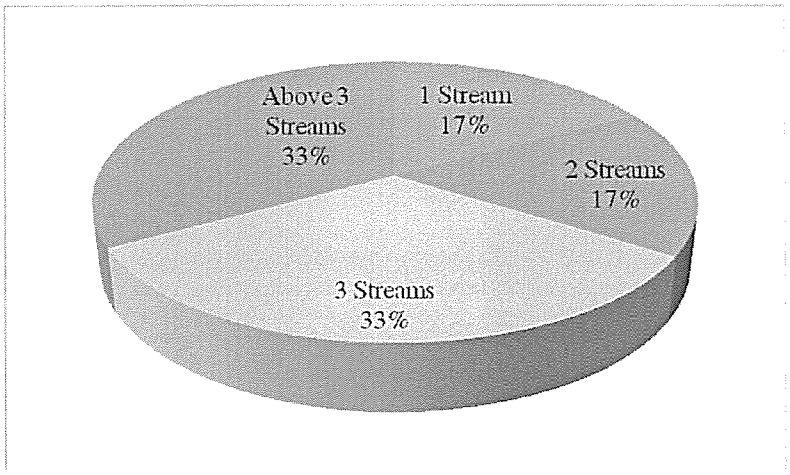


Figure 4.5 indicates that majority 4(66.6%) of FDSS have three and above streams, one and two streamed schools account for 16.7% each. These findings depict rapid expansion as a result of increased enrolment; thereby schools have large number of streams. The one and two streamed schools are new and were just established.

4.3.10 Average number of students per class

The head teachers were asked to indicate the average number of students per class, the findings shown in figure 4.6

Figure 6 4.6: Average number of students per class

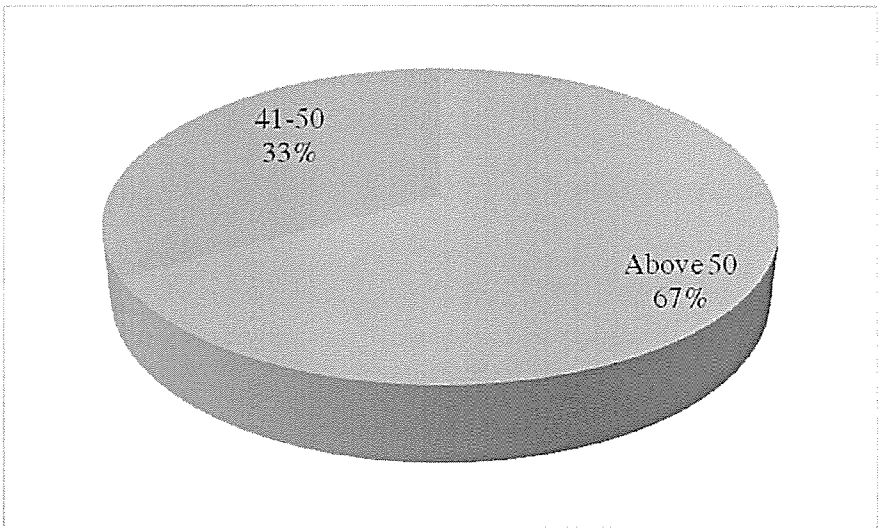


Figure 4.6 indicates that majority of the schools 4(66.7%) have above 50 students per class. The MoE recommends 35-40 students per class, this implies classrooms in the district are overpopulated with up to above 50 students per class. This depicted the rapid expansion of USE as a result of annual increase of enrolment rates due to increased transition rates from primary schools as a result of UPE. None of the schools meet the policy directive of 35-40 students per class since the rest of the schools 2(33.35) accommodate 41-50 students per class.

4.3.11 Schools' enrolment

The study investigated the trends in enrolment for the last five years, and the results shown in Table 4.6

Table 4.6: Schools' enrolment for the years 2009 – 2013

Year	Enrolment		Total
	Boys	Girls	
2014	764	920	**1684**
2015	1076	962	**2038**
2016	12431052		**2295**
2017	12861028		**2314**
2018	1335	1084	**2419**

4.4 Influence of availability of TLM on students' performance in mathematics in UCE

To establish the influence of availability of TLM on performance in mathematics in UCE in USE, the respondents were asked to respond to statements that sought to answer the same. This section discusses the responses of the respondents from data gathered. For example the head teachers and teachers were asked to indicate the availability of TLM in their schools.

Textbook : pupil ratio

Further the head teachers were asked to indicate the pupil/ text book ratio in three compulsory subjects and the results provided in Table 4.10

Table4.10: Textbook: pupil ratio

Subject	Ratio	Frequency	Percent
Maths	1:01	1	16.7
	1:03	5	83.3
English	1:01	1	16.7
	1:02	1	16.7

Table 4.10 indicates that the extent of sharing textbooks is quite minimal in the three compulsory subjects, with the highest number of students sharing books are 3 at 83.3% in mathematics, 66.7% in English and 83.3% in Kiswahili. A few schools (2) allocated one book per student in mathematics and English only.

The findings of the study indicate that the schools investment on text books was adequate, this probably was due to the fact that the government funding through USE policy was channeled to provision of TLM. Also most schools gave priority to the core subjects, mathematics, English and Kiswahili, maybe because in the core subjects assignments are given after every lesson. When instructional material are lacking or inadequate the teaching/ learning process is compromised and this inevitably is reflected in low academic achievement, high dropout rates, problem behaviors, poor teacher motivation and unmet educational goals (Hassan, 2000).

Textbooks, set books, teachers' guides and models are essential in implementation of the curriculum. Textbooks and set books ensure that students can do their private reading, complete assignments in time and conduct group discussions. Textbooks and set books can also be used as reference materials to supplement the teachers' instruction. Teachers' guides give the teachers direction on how to introduce and deliver content in various subject areas. Models make the lessons meaningful and enhance students' understanding of concepts. Existence of discussion groups means that the students are provided with opportunities to learn from one another, peer instruction and express themselves and may improve their academic performance in mathematics. Inadequacy in use of calculators means that the learners borrow from one another thus they are slow in completing assignments and some may end up copying from their classmates. Inadequacy of resources in the library and agriculture room means that learning gaps may occur in these subject areas resulting in low mean grades in national examinations. Reference books enhance the students reading material hence not restricted to a few classroom textbooks thus broaden their knowledge and improve performance.

4.6 Influence of adequacy of human resources on students' performance in mathematics in UCE

The study sought to establish the adequacy of teachers employed in the district. A factor such as employment status of teachers, and enrolment for in service training was used to determine extent of human resource availability in the district.

Average number of teachers employed per school in the district

Head teachers were asked to indicate the employment status of teachers in their schools, and the averages are tabulated in Table 4.15

Table4.15: Average number of teachers employed per school in the district

Employment status	Average No. of teachers
TSC	16
BOM	5
Volunteers	2
Total	**23**

Table 4.15 indicates that the average number of teachers employed by TSC and BOM per school is 16 and 5 respectively. There are 2 volunteer teachers on average per school in the district. These findings indicate that the district is understaffed hence the BOM intervened by employing more teachers to cater for the shortage. The ministry of education recommends a minimum of 28 lessons per teacher per week. The teachers indicated to be teaching 25-30 lessons per week, meaning the teaching shortage has been eased by the BOMs effort to employ more teachers to cater for the short fall in various departments. However there may be glaring imbalances in staffing in the various departments in schools, such that some departments may be over staffed while others are under staffed. On the other hand with increasing annual enrolment rates, the government need to plan and project teacher requirements for schools since currently the burden of paying teachers under BOM is left to parents under the USE program. This gross lack of teachers may impact negatively on students' performance.

Teachers' responses on enrolment for in service training

Extent of resource utilization	Responses %

The study sought to find out the enrolment of teachers for in service training, the results provided in figure 4.7.

Figure 7: Figure 4.7: Teachers' responses on enrolment for in service training

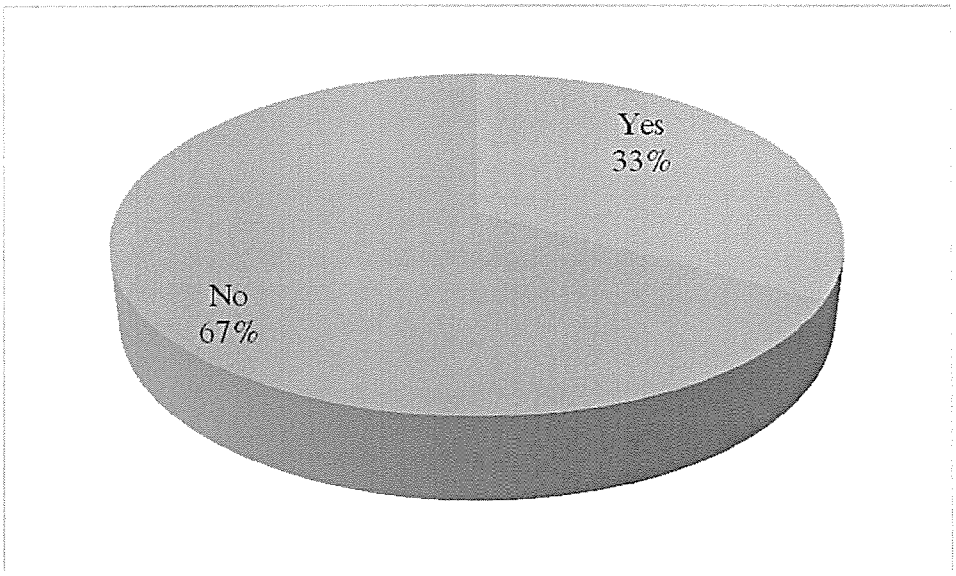


Figure 4.7 indicates that only 6(33.3%) had enrolled for in service training programmes, 12(67.3%) were of the contrary opinion. These results can probably be attributed to the fact that most schools in the district may not have opportunities for training due to busy school and teaching schedules also most teachers have family responsibilities which may not permit them to enroll for training due to unavailability of time and resources, hence missing out on opportunities that would improve the teachers skills and consequently having a negative influence on students' performance in mathematics.

	5	4	3	2	1
Usage of facilities in the laboratory	3(16.7)	7(38.9)	3(16.7)	2(11.1)	3(16.7)
Usage of facilities in the library	4(22.2)	4(22.2)	1(5.6)	3(16.7)	6(33.3)
Usage of facilities in the agriculture room	2(11.1)	3(16.7)	4(22.2)	1(5.6)	8(44.4)
Usage of field for co-curricular learning	5(27.8)	2(11.1)	4(22.2)	5(27.8)	2(11.1)
Usage of the reference books in teaching	8(44.4)	3(16.7)	4(22.2)	2(11.10	1(5.6)
Usage of the set books in teaching	7(38.9)	3(16.7)	1(5.6)	2(11.1)	5(27.8)
Usage of the text books in the teaching	8(44.4)	7(38.9)	-	3(16.7)	-
Usage of the teachers guide in teaching	4(22.2)	8(44.4)	3(16.7)	3(16.7)	-
Usage of the models in teaching	3(16.7)	4(22.2)	6(33.3)	4(22.20	1(5.6)
Usage of the resource persons	1(5.6)	4(22.2)	3(16.7)	8(44.4)	2(11.1)
Usage of the excursions/field trips	1(5.6)	2(11.1)	5(27.8)	6(33.3)	4(22.2)
Usage of the calculators in teaching	2(11.1)	6(33.3)	4(22.2)	3(16.7)	3(16.7)
Usage of the internet in teaching	3(16.7)	4(22.2)	3(16.7)	5(27.8)	3(16.7)
Usage of the charts in teaching	4(22.2)	8(44.4)	2(11.1)	4(22.2)	-
Usage of the recreational facilities	1(5.6)	4(22.20	3(16.70	6(33.3)	4(22.2)
Use of the discussion groups in teaching	9(50)	8(44.4)	1(5.6)	-	-

4.7 Extent of utilization of TLR in USE

The study investigated the extent of utilization of resources in schools. This included all the TLR that is; TLM, physical facilities and human resources

Teachers' responses on extent of resource utilization

The study investigated the extent of utilization of teaching learning resources in schools, by being asked whether they made use of the TLR. The teachers were provided with statements on a rating of 1 to 5. Such that 1 represented strongly disagree, 2 disagree, 3 neutral, 4 agree and 5 strongly agree. The percentages of these responses were computed and are provided in Table 4.16

Table 4.16: Teachers' responses on extent of resource utilization

Legend: 5- strongly agree, 4-agree, 3-neutral, 2-disagree, 1-agree Table 4.16 indicated that teacher respondents strongly agreed on the use of the following; 8(44.4%) used textbooks in teaching, 7(38.9%) used set books, 8(44.4%) used reference books, 9(50%) used discussion groups; Books, set books, textbooks, teachers' guides, models, calculators, charts and teaching aids, are an essential requirement for coverage of the syllabus in preparation for national examinations. They also enhance revision and completion of assignments. Therefore academic achievement cannot be attained unless there is proper and extensive use of these books. Only 7(38.9%) agreed on use of laboratory facilities,

8(44.4%) on use of teachers' guides, 6(33.3%) on use of calculators and 8(44.4%) used charts.

Thirty three percent strongly disagreed on using library facilities, 8(44.4%) as well on use of agriculture room, 27.8% disagreed on the use of playfield, and 5(27.8%) disagreed to be using internet in teaching and learning, these teachers responses indicate that there was minimal use of these facilities. This implies that text books are widely used in teaching and learning in USEs.

The dismal use of facilities in the laboratory, agriculture room and computer room may be attributed to the fact that these rooms are poorly equipped and therefore teachers may find them to have little relevance in improving the mode of lesson delivery. Again most schools

have put their priorities in purchase of textbooks, set books and teachers' guides at the expense of other instructional materials. Grant (1978) asserts that teaching and learning cannot be effective without adequate and relevant use of instructional materials. According to Abimbade (1997) instructional resources in teaching and learning make students to learn more and retain better what they have been taught and that it also promotes and sustains students' interest. It also allows the learners to discover themselves and their abilities and consequently provides them with an opportunity to realize their full potential.

The study investigated the extent of use of resource persons. The responses of the teachers were 8(44.4 %) disagreed on use of resource persons. In schools, resources persons usually included UCE examiners, motivational speakers and counsellors. The examiners equip the learners with skills to answer questions in national examinations while the motivational speakers are largely meant to guide the students on methods of study, developmental challenges, discipline, drug and substance abuse, relationships, among others. Resource persons play a key role in helping schools achieve their goals, in particular academic achievement.

On the extent of use of excursion/field trip the study found out that the responses of the teachers were 6(33.3%) disagreed on use of field trips and recreational facilities. This could be partly due to the fact that most schools do not have buses; hence excursions would entail hiring some means of transport which would be too expensive. The high cost of fuel witnessed in the past few years is also making travelling expensive even for those schools that own buses or vans. Excursions and field trips involve a lot of time in terms of preparation and actual study which may interfere with the formal school timetable. Excursions and field trips enhance learning because they make classroom learning real and break monotony and create interest. This agrees with the findings of Oyeniran (2003) who observed that students learn best if they are given the opportunity to see and to make observation of what they are taught.

CHAPTER FIVE
SUMMARY OF THE STUDY, CONCLUSION ANDRECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings of the study, conclusions and recommendations arrived at. It also gives suggestions for further studies.

5.2 Summary of the study

The study was to assess the influence of TLR on students' performance in UCE in USE in Jinja District, Walukuba County, Uganda. The research objectives were: To determine how availability of teaching and learning materials used in USEs in Jinja district affect students' performance in mathematics in UCE, to establish how adequacy of human resource influence students' performance in UCE in USE in Jinja district and to assess extent of resource utilization and its effect on students' performance in mathematics in UCE in USE in Jinja district.

The study employed descriptive research design. The target population included head teachers, class teachers and students in the entire Jinja District. The sample size consisted of a total of 264 respondents; 6 head teachers, 18 class teachers and 240 students. The researcher employed self administered questionnaires to gather data for the study. There were three sets of questionnaires; head teachers, class teachers and students. Findings revealed that;

USE has improved student enrollment in the schools, this is seen in the steady increase in enrolment rates over the past five years, and has also increased provision and adequacy of TLR in the schools as reported by the majority

5(83.3%) of head teachers.

The findings revealed that latrines/ toilets are available in all the schools as indicated by 100% of the head teachers, teachers and students. Classrooms, laboratory and playground facilities are available as indicated by 238(99.2%), 197(82.1%) and 195(81.2%) respectively by the student respondents. The facilities least available are libraries cited by

60(25%) and dining facilities cited by 43(17.9%), the findings implies that USE has contributed to an overstretch on the school facilities. The researcher observed that even though some facilities like classrooms and laboratories existed they were small and ill equipped to appropriately serve the purposes for which they were built.

The respondents who strongly agreed on adequacy of chairs and tables in the staffroom were 4(66.6%) for the head teachers and 7(38.9%) for the teachers, indicating that majority of the respondents agreed that the number of chairs and tables were adequate. When asked about the adequacy of chairs and desks in the classrooms, only 1(16.7%) of the head teachers and 2(11.1%) of the teacher respondents strongly agreed on their adequacy, implying the desks in school are not enough for the learners. On capacity and equipment in the laboratory and agriculture room the head teachers and teachers who strongly agreed on their adequacy were a mere: 1(16.7%) and 0.0% respectively, meaning the facilities in the laboratories and agriculture rooms are quite inadequate. These results indicated that the schools did not prioritize issues that seem not to be directly related to tuition.

A greater proportion of the teachers and students reported that USE has affected syllabus coverage hence contributed to poor performance in the schools. USE is a clear indication to have contributed to congestion in the day secondary schools. Majority of the students cited missed examinations as a result of lack of school fees, 158(65.8%) on the other hand objected that there is improved performance of students in examinations. The introduction of Free Secondary Education enhanced students' access to secondary education. However the increased access was not commensurate to the number of teachers available in schools.

The study revealed employment of 5 extra teachers as on average per school as
BOM teachers and each school admitting 2 volunteers to help with the teaching workload. This translates to a total of extra 42 teachers in the district not provided for by USE. There was an increase in teachers' workloads as a result of free secondary education. The teachers were not able to do their work adequately due to high enrolment of students and overcrowded classes. Administration of internal examinations in the day secondary schools is also seen to be difficult

as a result of increased number of students making most of the schools only being able to sit for internal examination once in a term.

The study also established that most teachers in the district has B. Ed level of academic qualification and 16(88.9%) of the head teacher and teacher respondents had B.Ed level of education, none of the teacher respondents had masters level of education, but only 2(33.3%) of head teachers. The diploma level of education had only 2(11.1%) of the teacher respondents. The research found that only 6(33.3%) of teachers had enrolled for in-service training programmes, 12(66.7%) were of the contrary opinion, indicating that most teachers were missing out on trainings that would boost their performance hence boost students performance as well.
An analysis into the teaching and learning materials imply that majority of the teacher respondents strongly agreed that TLM were adequate except for reference guides, use of field trips, resource persons, and use of computers in teaching and learning. This was corroborated by 3(50%) of head teachers who agreed that teaching materials such as manilas and chalk were adequate, agreed on adequacy of teachers guides and reference books and were neutral on use of field trips and use of computers for teaching and learning.

TLR are of no use unless effectively utilized, the study shows that teacher respondents strongly agreed on the use of the available TLM especially 8(44.4%) used textbooks in teaching, 7(38.9%) used set books, 8(44.4%) used reference books, 9(50%) used discussion groups; Only 7(38.9%) agreed on use of laboratory facilities, 8(44.4%) on use of teachers' guides, 6(33.3%) on use of calculators and 8(44.4%) used charts. Although the teachers disagreed to use certain facilities which the study found out to be unavailable in most schools, they include facilities in the libraries, agriculture room, disagreed on use of playfield, resource persons, field trips, internet and recreational facilities.

5.3 Conclusion

From this study it is clear that USE is a fruitful and worthy programme since has increased access to secondary education to most students who miss opportunities in boarding secondary schools. From the study it's also clear that TLM are available, except physical facilities are inadequate, small and in poor condition, inadequate recreational facilities and gross lack of human resources. An analysis of physical facilities shows an over stretch. Teachers further indicated that facilities had a negative influence on performance of students in mathematics in USE. Teaching and learning materials tend to be adequate and minimally shared especially in the compulsory subjects, human resources is also a serious concern, since enrolment in the schools increase yearly leading to inadequate curriculum supervision and implementation in schools. The study also established that the funds released by the government to Uganda certificate of education were inadequate, and was also not released on time, cited by 4(66.7%) of the schools head teacher respondents forcing schools to procure goods on credit or shelve some projects and this resulted to charging levies on parents to meet purchase of certain school resources.

5.4 Recommendations

Based on the findings, analysis and conclusions of the study, the following recommendations were made;

The government should allocate more funds to equip physical facilities in schools which are either inadequate or completely lacking, also more funds should be allocated to equip schools with resource persons, field trips and excursions, internet facilities and recreational facilities, to avert charging parents' levies for these resources. Also specific subject rooms like agriculture room including laboratories should be equipped to enhance effective teaching and learning.

TSC should employ more teachers to cater for the enormous teacher shortage, in service training programmes should also be initiated to address manpower needs as a result of changing times to enable teachers embrace use and access to computers and the internet and provision of e-materials. Where the internet is unavailable, unreliable or unaffordable,

the development of local school networks and the provision of e-materials to schools on compact disks (CDs/ flash disks can support e-learning via school servers and networks.
The directorate of quality Assurance and Standards within the ministry of education should be more empowered with resources to enable them carry out their advisory work more effectively in schools. It is expected that their regular visits to school would be beneficial to schools as through their guidance schools would be able to maintain the expected standards for effective learning to take place, this would assist principals as well to ensure all TLR are utilized effectively

Head teachers should involve all education stakeholders to aid in school development programmes and projects. The schools should also initiate income generating projects to subsidize government funding.

The researcher recommends that the government should build more schools to meet the rising yearly enrolment surges to avoid overcrowding of physical facilities, stretch of teaching and learning materials and overworking of available teachers which in turn would compromise the quality of USE.

Motivational programs should be put in place for schools managers, teachers and students so as to encourage them and maintain their focus on their roles and contribution towards effective and efficient education programmes.

5.5 Areas for further research

The researcher suggests that;

i. The study was conducted in Walukuba County, a similar study should be done in other counties to establish status of TLR vis a vis performance, and study also extended to boarding schools.
ii. A study can be conducted on methods of improvising TLM and models in schools
iii. A study on Integration of ICT and e-learning to complement human resources

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION TO RESPONDENTS

Masetee Jonah
Kampala international University
P.O. Box 20000, Kampala.

Dear Respondents,

RE: RESEARCH PROJECT FOR AN UNDERGRADUATE DEGREE PROGRAMME

I am an undergraduate student pursuing a Bachelor's degree in science with Education at Kampala international University. I am conducting a research for my final year project, which is a requirement of the degree programme.

This questionnaire is designed to gather information on **the influence of teaching and learning resources on students' Uganda Certificate of education in Jinja District.**

Your school has been selected to be part of my study sample. Kindly provide information to all questionnaire items.

All information will be treated with utmost confidentiality.
For this reason DO NOT write your name on this questionnaire.
Thanks in advance

Yours Sincerely,

Masetee Jonah
1163-07184-08243

APPENDIX II: QUESTIONNAIRE FOR HEAD TEACHERS

The information given in this questionnaire will be treated with strict confidentiality.

Instructions

Please tick appropriately in box [□] corresponding to your choices for structured questions.

Write the answers to the open ended questions in the spaces provided.Please tick [□] the response that most closely approximates your opinion about the statements for questions consisting of statements scaling 1 to 5 as below.

5 Strongly Agree 4 Agree 3 Neutral 2 Disagree 1 Strongly Disagree

Section A: Background information

1. Indicate your gender Male [ ] Female [ ]
2. For how long have you served as a head teacher in this school?

   Under one year [ ] 1-3 years [ ]

   4-6 years [ ] 7-9 years [ ]

   Over 9 [ ]
3. What is your highest academic qualification?

   P.hD [ ] M. Ed [ ]

   B. Ed [ ] B. Sc [ ]

   Dip. Ed [ ] Any other, please specify ___
4. Indicate the number of streams in your school

   1 [ ] 2 [ ] 3 [ ] above 3 [ ]

5. Give the number of teachers in your school as follows

   TSC _____ Volunteers _____ B.O.M _____
6. What is the average number of lessons that a teacher in your school is allocated per week? Below 18 [ ] 19-24 [ ] 25-30 [ ] above 30 [ ] 7.Indicate the enrolment in your school in the following years

Year	Enrolment		Total
	Boys	Girls	
2013			
2014			
2015			
2016			
2017			

Section B: Availability of Resources & School mean score

9. What are the textbook/pupil ratios for each of the following subjects in your school?

Subject	Number of Pupils per text book
Mathematics	
English	
Kiswahili	

10. Give the number of students with UCE mean score in the years provided in the table below.

Year	Mean Index				Total
	0-4.0	4.1-6.0	6.1-9.0	9.1 and above	
2009					
2010					
2011					
2012					
2013					

Concept of USE

11. a) Does the government disburse USE funds in time? Yes[ ] No[ ]

    b) If Yes, how has it affected your school? .....

12. Do you consider USE policy to have contributed to adequate provision of teaching and learning resources? Yes [ ] No [ ]

13. a) Has the provision of USE led to increase in provision of teaching and learning resources? Yes [ ] No [ ]b) If yes, to what extent? .....

14. What is the average number of students per class in your school?

    30-40 [ ] 41-50 [ ] above 50 [ ]

15. Do you have any suggestions on the provision of TLR?

    .....

16. Do you think availability of teaching and learning resources (TLR) influences school performance in UCE? Yes [ ] No [ ]

    (b) If Yes, how.....

THANK YOU FOR YOUR COOPERATION

APPENDIX III: QUESTIONNAIRE FOR TEACHERS

The information given in this questionnaire will be treated with strict confidentiality.

Instructions

Please tick appropriately in box [□] corresponding to your choices for structured questions.

Write the answers to the open ended questions in the spaces provided. Please tick [□] the response that most closely approximates your opinion about the statements for questions consisting of statements scaling 1 to 5 as below.

5 Strongly Agree 4 Agree 3 Neutral 2 Disagree 1 Strongly Disagree

SECTION A: Background Information, Teacher's Qualifications and workload Information

1. What is your gender? Male [ ] Female [ ]
2. What are your teaching subjects? Languages [ ] Technicals [ ]
   Humanities [ ] Sciences [ ]
3. What is your highest academic qualification?
   M.Ed [ ] B.Ed [ ] B. Sc [ ] Dip. Ed [ ] others (specify).....
4. How many years of teaching experience do you have?
   0 – 5 years [ ] 6 – 10 years [ ] 11 – 15 years [ ] Over 15 years [ ]
5. How many lessons do you teach per week? Below 18 [ ] 19-24 [ ]
   25-30 [ ] above 30 [ ]
6. (i) Have you ever enrolled in an in service training programme in the past one year? Yes [ ] No [ ]
   (ii) If yes, did you find the training relevant to your career? Yes [ ] No [ ]

SECTION B: Availability of Resources

7.Use (5 Strongly Agree 4 Agree 3 Neutral 2 Disagree 1 Strongly Disagree)

	Physical facilities	5	4	3	2	1
1	The number of tables and chairs in the staffroom is adequate					
2	The number of desks and chairs in the classrooms are adequate					
3	The capacity and resources in the library are adequate for the number of students in the school					
4	The capacity and equipment in the laboratory is adequate for the number of students in the school					
5	The facilities in the home science/agriculture room are adequate for the number of students in the school					
6	The number of latrines/toilets in the school are adequate for the number of students in the school					
7	The number of offices allocated are adequate for the departments in the school					
8	The capacity of the dining hall is adequate for the number of students in the school					
9	The size of the play ground is adequate for the number of students in the school					
10	The water supply to the school is reliable					
11	The supply of power to the school is reliable					
	Teaching and learning materials (TLM)					
12	The number of reference books in the school are adequate					
13	The number of teachers guide in the school are adequate					
14	Teaching resources such as manilas, dusters, chalk, models, charts, are adequate					
15	Use of resource persons in the school is frequent					
16	Use of field trips/excursions in the school is frequent					
17	Use of computers in teaching and learning is common					
18	Students have adequate number of calculators					
19	Books and equipment storage facilities in the school are adequate					

Extent of Resource Utilization

8.Use (5 Strongly Agree 4 Agree 3 Neutral 2 Disagree 1 Strongly Disagree)

		5	4	3	2	1
1	I make use of the facilities in the laboratory in teaching					
2	I make use of the facilities in the library in teaching					
3	I make use of the facilities in the agriculture/ home science/ computer room in teaching					
6	I make use of the play field to enhance co-curricular learning					
7	I make use of the reference books in teaching					
8	I make use of the set books in my teaching					
9	I make use of the text books in the teaching of subjects					
10	I make use of the teachers guide in teaching					
11	I make use of the models in teaching					
12	I make use of the resource persons in teaching					
13	I make use of the excursions/field trips in teaching					
14	I make use of the calculators in teaching					
15	I make use of the internet in teaching					
16	I make use of the charts in teaching					
17	I make use of the recreational facilities to entertain students					
18	I make use of the discussion groups teaching					

9. Do you consider USE policy to have contributed to adequate provision of teaching and learning resources? Yes [ ] No [ ]
10. a) Has the provision of USE led to increase in provision of teaching and learning resources? Yes[ ] No[ ] b) If yes, to what extent? .....
11. Do you have any suggestions on the provision of TLR? .....
12. Do you think availability of teaching and learning resources (TLR) influences school performance in mathematics in UCE? Yes [ ] No [ ]

    (b) If Yes, how.....

Thank you for your cooperation

Physical facilities

9. Please indicate the presence, condition and size of the following facilities

			Good 1 Fair 2 Poor 3	Big 1 (Accommodate adequately) Average 2 Small 3 (Inadequate)
Item	Present	Absent	Condition	Size
Library				
Laboratories				
Classrooms				
Agriculture				
Dining				
Latrines/ toilets				
Playground				

10. Is there a provision to consult your teacher after class when you do not fully understand a concept taught in class? Yes [ ] No [ ]

    b). If Yes, how often? Always [ ] Not Always [ ]

11. What grade do you expect in mathematics in UCE?

12. Do you think the provision of USE has improved performance of students in UCE? Yes [ ] No [ ]

13. Do you think availability of teaching and learning resources influences school performance in UCE? Yes [ ] No [ ]

    (b) If Yes, how.....

THANK YOU FOR YOUR COOPERATION