

**FACTORS AFFECTING THE TEACHING OF TECHNICAL AND
VOCATIONAL SKILLS IN SECONDARY SCHOOLS IN UGANDA
A CASE OF WAKISO AND KAMPALA DISTRICTS.**

BY

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DECLARATION

I declare that to the best of my knowledge, this is my original work and has not been submitted for any award in any other university. No part of this work should be reproduced without permission from the author and Moi University.

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DEDICATION

This thesis is dedicated to my precious and loving who has been a strong pillar to me and my family who have given tremendous support in my life.

TABLE OF CONTENTS

DELARATION.....	ii
DECLARATION BY SUPERVISORS.....	ii
ACKNOWLEDGEMENT.....	iii
DEDICATION.....	iv
TABLE OF CONTENTS.....	v
APPENDICES.....	viii
LIST OF TABLES.....	ix
ABSTRACT.....	xi
LIST OF ABBREVIATIONS	xii
CHAPTER ONE.....	1
Introduction.....	1
1.1 Introduction.....	1
1.2 Background of the Study.....	2
1.3 Statement of the Problem.....	6
1.4 Purpose of the Study.....	6
1.5 Objectives of the Study.....	6
1.6 Research Question.....	7
1.7 Significance of the Study.....	8
1.8 Scope of the study.....	9
1.9 Limitations of the Study.....	9
1.10 Assumption of the Study.....	9
1.11 Conceptual Framework.....	10
1.12 Study of Variables.....	11
1.13 Operational Definition of Terms	14
1.14 Conclusion	15
CHAPTER TWO.....	17
Literature Review.....	1

2.1	Introduction.....	17
2.2	Quest for a Good Technical and Vocational Education.....	18
2.3	Government Policy towards the Teaching of Technical and Vocational Skills.....	19
2.4	Relevance of Secondary Education Curriculum.....	21
2.5	Relevance of National Teachers' College Curriculum to Secondary School Curriculum.....	28
2.6	The Competence of Teachers.....	30
2.7	Attitude towards Technical and Vocational Skills.....	34
2.8	Availability of Facilities at National Teachers' College and Secondary Schools.....	41
2.9	Conclusion.....	43
CHAPTER THREE.....		45
Research Design and Methodology.....		45
3.1	Introduction.....	45
3.2	Research Design.....	45
3.3	Study Area.....	45
3.4	The Target Population.....	46
3.5	Sampling.....	46
3.6	Sampling Procedure.....	48
3.7	Instruments of Data Collection.....	48
3.7.1	Questionnaire.....	48
3.7.2	Reliability of the Instrument.....	49
3.7.3	Validity of the Instrument.....	50
3.8	Procedure of Data Collection.....	50
3.9	Data Analysis.....	51
3.10	Conclusion.....	51
CHAPTER FOUR.....		52
Data Presentation, Analysis and Interpretation.....		52

4.1	Introduction.....	52
4.2	Demographic Data of Respondents.....	52
4.2.1	Respondents.....	52
4.2.2	Demographic Details of Respondents.....	54
4.3	Impact of Government Policies on the Teaching of Technical and Vocational Skills in Secondary School.....	57
4.4	Clarity of Curricula for Secondary Education and National Teachers' Colleges to the Teaching of Technical and Vocational Skills	61
4.5	The Influence of the Competence of Teachers of Technical and Vocational Education on the Teaching of Technical and Vocational Skills in Secondary Schools... ..	63
4.6	The Influence of Stakeholders on the Teaching of Technical and Vocational Skills in Secondary Schools.....	65
4.7	The Impact of Resources in the Training Environment on the Teaching of Technical and Vocational Schools.....	69
4.8	Summary.....	74
CHAPTER FIVE.....		76
Discussion, Conclusion and Recommendations.....		76
5.1	Introduction.....	76
5.2	Discussion of Results.....	76
5.2.1	The Impact of Government Policies on the Teaching of Technical and Vocational Skills in Secondary Schools.....	76
5.2.2	Clarity of Curricula for Secondary Education and National Teachers' Colleges to the Teaching of Technical Vocational Skills.....	78
5.2.3	The Influence of the Competency of Teachers of Technical and Vocational Education on the Teaching Technical and Vocational Skills in Secondary Schools.....	79
5.2.4	The Influence of the Attitude of Stakeholders (Tutors, Administrators, Teachers and Parents) on the Teaching of Technical and Vocational Skills in Secondary Schools.....	80

5.2.5	The Impact of Resources (Facilities, Tools and Equipment) in the Training Environment on the Teaching of Technical and Vocational Schools.....	81
5.3	Conclusion.....	82
5.4	Recommendations.....	82
5.5	Recommendation for Further Research.....	85
BIBLIOGRAPHY		86

APPENDICES

Appendix I	Research Area Map of Uganda
Appendix II	Letter of Introduction from Moi University
Appendix III	Letter of Introduction from Wakiso District
Appendix IV	Questionnaire for Policy Makers and Administrators
Appendix V	Questionnaire for Secondary School Head Teachers and Principals of NTCs
Appendix VI	Questionnaire for Secondary School Teachers and Tutors of NTCs

LIST OF TABLES

Table	Page
Table 1: Respondents by Category.....	47
Table 2: Reliability Coefficients of the Questionnaires.....	49
Table 3: Category of Respondents.....	53
Table 4: Gender and Work Experience of Respondents	54
Table 5: Titles and Institutions of Respondents	55
Table 6: Data on Technical and Vocational Specializations of Respondents.....	56
Table 7: Policy Makers' Responses on Special Government Policies to promote teaching of technical and Vocational skills in Secondary School	58
Table 8: Policy Makers' Responses on Plans for School Dropouts	58
Table 9: Policy Makers' Responses	59
Table 10: Head Teachers' and Principals' Responses.....	60
Table 11: Teachers and Tutors Responses.....	60
Table 12: Policy Makers' responses.....	61
Table 13: Head Teachers' and Principals' responses.....	62
Table 14: Teachers and Tutors' responses.....	62
Table 15: Institutions where Technical and Vocational Training was Acquired.....	63
Table 16: Whether the Ministry Of Education Has Enough Qualified Teachers to Teach Technical and Vocational Skills.....	64
Table 17: Policy makers' responses.....	65
Table 18: Head Teachers' and Principals' Responses.....	66
Table 19: Teachers and Tutors' Responses.....	67
Table 20: Head Teachers, Principals Views on Attitude of Parents and Teachers towards the Teaching of Technical and Vocational Education.....	69
Table 21: How Teachers Improvise.....	70
Table 22: Enough Facilities to Support the Teaching of Technical and Vocational Education.....	70
Table 23: Technical and Vocational Subjects to be Taught.....	72

Table 24 Respondents' Suggestions for Improving the Teaching of Technical and Vocational Skills in Secondary Schools.....	73
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ABSTRACT

The study explored the factors affecting the teaching of technical and vocational skills /subjects in secondary schools in Uganda. Since Uganda got independence in 1962, governments have put a number of policies in place aiming at promoting the teaching of technical and vocational skills/subjects in secondary schools in Uganda. One of the policy was to restructure the secondary education by creating general, comprehensive and vocational secondary schools in 1992. And also to vocationalise the entire education system and this was in 2000. Despite all the policies, the teaching of technical and vocational skills/subjects is not adequate. There fore the study sought to establish how the teaching of technical and vocational education may have been affected by, quality of teachers, availability of facilities and workshops, relevant curriculum, and the attitude of the general population towards technical and vocational skills. An exploratory survey design was used to collect data from the respondents. Both semi- structured questionnaires were used to collect data. A total of 100 respondents selected purposively participated in the study. Descriptive statistics that is frequency tables and percentages were used. A chi-square was also used to establish the significance of the findings in relation to the objectives. The Statistical Package Social Sciences (SPSS) was used to analyze data.

The findings of the study indicated that technical and vocational education in secondary schools still facing challenges. The policies put in place by government to promote technical education have remained on paper. Technical is still in a non priority position. Secondary schools and other tertiary institutions lack trained teachers, facilities, workshops, and funds for purchasing materials.

The researcher recommends the creation of a special task force to study reasons why technical and vocational education policies are not being implemented. The government and education institutions should work together to secure funding to train more technical and vocational teachers. A special policy to attract more teachers into technical and vocational education is also needed.

LIST OF ABBREVIATIONS

BTVET	-	Business, Technical, Vocational Education and Training
EFA	-	Education For All
IPS	-	Integrated Production Skills
ITEK	-	Institute of Teacher Education Kyambogo
KTI	-	Kampala Technical Institute
NCDC	-	National Curriculum Development Centre
NGOs	-	Non-Governmental Organizations
NTC	-	National Teacher's College
SS	-	Secondary Schools
SPSS	-	Statistical Package for Social Sciences
UNESCO	-	United Nations Education Scientific Cultural Organization
UPE	-	Universal Primary Education
UPK	-	Uganda Polytechnic Kyambogo
UPPET	-	Universal Post-Primary Education and Training
USE	-	Universal Secondary Education
UNISE	-	Uganda National Institute for Special Education

CHAPTER ONE

1.0 INTRODUCTION

1.1. Introduction

The study aimed at finding out factors affecting the teaching of technical and vocational skills in secondary schools in Uganda. The chapter gives the background to the study, showing that East African countries and Uganda in particular, have invested little in technical and vocational education compared to developed countries. The study also explores what has led to ineffective teaching of technical and vocational skills in secondary schools. The background also examines the measures the government has taken to improve technical and vocational education by vocationalising the entire education system of Uganda.

This chapter also highlights the statement of the problem. It further states the purpose of the study and the objectives of the study, clearly showing what the study has achieved.

The chapter also highlights the significance of the study, showing the benefits in innumerable ways. The scope of the study is given, showing the respondents that were selected from two districts of Wakiso and Kampala, those from the Ministry of Education and Sports, Teacher Training Colleges, and the Teachers from the selected secondary schools and the major issues that were explored in relation to the implementation of vocational education in Uganda. The Conceptual Framework is given, showing the relationships between variables; the independent, moderating and dependent variables. The operational definition of terms is finally given at the end of this chapter.

1.2. Background of the Study

Worldwide, countries like America, Russia, Britain, Germany, France, Japan, china, Canada, Italy, and others are referred to as developed countries and this is exemplified in advancement of technology and industrialization. These countries which are highly developed and also those seen developing very fast, for example Korea, give first priority to science and Technology and this was possible because of the set up of their education systems. An example is America which vocationalized its education system after realizing that Russia had explored the outer space by the Sputnik in October 1956. The Sputnik challenged the Americans and in 1958 they had to vocationalise their education system so that they could compete with Russia in exploring the space (<http://www.batnet.com/mfwrigt/sputnik.html>, 2007 downloaded on 26th, August, 2008).

African countries are also capable of developing very fast industrially, given the resources available, if they can genuinely invest in science and technology advancement, .Uganda is one of the developing countries in Africa, but it has limited emphasis on science and technology advancement, hence doing badly in the area of industrialization (Kajubi Report, 1989). This slow growth is partly as a result of the colonial oriented education system inclined more on literary education which produces job seekers who look forward only to white collar jobs, putting little emphasis on technical and vocational education (Kajubi Report, 1989).

In 1989, the government of Uganda realized that education system had not seriously addressed the science and technology skills, and had failed to meet the needs of society. Up to now, the country lacks highly skilled workforce and the unemployment rate is growing so fast as a result

of universal primary education, creating more and more job seekers yet it was advocating for industrialization and modernization of agriculture. So, in that year, the government appointed “The Education Review Commission” under the chairmanship of Professor Senteza Kajubi,(Government white paper,1992).

The Education Review Commission recommended the vocationalization of the education system right from Primary schools onwards. The aims of this were: -

- (i) To inculcate an appreciation of labour and the environment as a resource base.
- (ii) To develop the children’s ability in the use of hands and head and building a positive attitude towards manual work.
- (iii) To promote rational thinking and attitudinal change in favour of productive manual work.
- (iv) To stimulate interest among pupils in acquisition of basic skills ultimately leading to development of technological awareness in the masses,(Government white paper report,page, 78).

The committee recommended, the restructuring of secondary education to create comprehensive and vocational secondary schools. Comprehensive education would teach both academic and technical subjects while vocational schools would only teach vocational skills. The commission also suggested vocationalisation of the entire education system , which would be implemented by teaching practical academic and vocational skills at all levels of education(Nursery, Primary, secondary, tertiary, University) in Uganda. According to the commission, the intention of

vocationalisation and restructuring was to expand the general secondary curriculum to include a number of practical subjects that are vocational in nature with the aim of enhancing the transition of secondary school graduates into the world of work as well as opportunities for further training in relevant post-secondary training institutions (Government White Paper, 199

After the Government studied the Kajubi Report, it came up with a “White Paper” in 1992 in which it strongly agreed with the recommendations of the commission to vocationalize the entire education system of Uganda. In the bid to implement the recommendation, the Government introduced new subjects in Primary schools and one of them was the “Integrated Production skills (IPS). This was also to be introduced in secondary schools (Government White Paper, 1992; Education For National Integration and Development, 2001).

In 2000-2001, in his manifesto during campaigns, the president of Uganda his Excellency Yoweri Kaguta Museveni announced the introduction of community Polytechnics at each sub-county (Gombolola) to take care of the many primary school leavers and dropouts as the result of free primary education which was introduced in 1997 by the Ministry of Education. For the community Polytechnics to take off, there was need to have technical teachers and vocational instructors in place who would instruct in these community Polytechnics.

Towards the end of 2001, eleven community Polytechnic Instructors’ colleges were opened and 200 instructors were trained. But owing to the community Polytechnics delay in their taking off, the trained instructors were already many, hence the colleges could not survive for more

than two years. This led to the closure of ten Instructors' training colleges in 2003 with the retention of only one (Okello, 2005).

The closing of ten colleges in a span of two years was clear evidence that there was not enough planning for the implementation of the policy and this can be related to the high unemployment level, which arose from UPE graduates that was instituted without thorough preparation, (Okello, 2005). In 2002/2003, the National Curriculum Development center (NCDC) embarked on writing new curricula to include a subject called Integrated Production Skills (IPS) for primary and secondary schools. The curricula were successfully written, but were not effectively implemented. In 2004, Kyambogo University in conjunction with the department of Teacher Education of the Ministry of Education embarked on writing a new curriculum for Teachers' Training Colleges in order to produce teachers to teach IPS. Since 2000 to date, the vocationalization of the Education system has not yet been successful, due to lack of teachers competent enough to teach technical and vocational skills.

It's against this background that the researcher wishes to carry out a study to establish factors affecting the teaching of technical and vocational skills in secondary schools in Uganda.

1.3 Statement Of The Problem

Whereas the efforts made by the church missionaries in the eighteenth century in starting technical and vocational education in Uganda, and the colonial governments getting involved in the nineteenth century is acknowledged, one wonders why up to now the teaching of technical and vocational skills is still inadequate in Uganda compared to other academic subjects.

Since the Government started getting involved in the education system of Uganda in 1925, efforts have been made to introduce technical and vocational skills in secondary schools, but with little success, (Okello, 2005). Even after independence in 1962, further efforts were made to strengthen technical and vocational education in Uganda. The Government then restructured secondary school education by introducing vocational and comprehensive secondary schools,. As such, the researcher carried out a research to bring to light factors affecting the teaching of technical and vocational skills in secondary schools in Uganda.

1.4 Purpose of the Study

The purpose of the study was to establish factors affecting the teaching of technical and vocational skills in secondary schools in Uganda.

1.5 Objectives of the Study

The objectives of the study were as follows:-

1. To establish how the Government policy has influenced the teaching of technical and vocational skills/subjects in secondary schools.
2. To establish the relevance of the National Teachers' College curriculum to secondary technical education.
3. To investigate the competency of teachers teaching technical and vocational skills both in secondary schools and NTCs.
4. To find out how the attitudes of various stake holders influences the teaching of technical and vocational skills in secondary schools..

1. To establish availability of resources in teaching of technical and vocational skills in secondary schools and National Teachers' Colleges.

1.6 Research questions

The study was guided by the following research questions:

1. Does the government policy on technical and vocational education have an impact on the teaching of technical and vocational skills/subjects in secondary schools ?
2. Is the National Teachers' Colleges curriculum relevant to the teaching of technical and vocational skills?
3. Does the competency of teachers of technical and vocational education have an influence on the teaching of skills in secondary schools?
4. How does the attitude of the stake holders affect the teaching of technical and vocational skills?
5. Does the availability of resources have an impact on the teaching of technical and vocational skills in secondary schools and National Teachers' Colleges?

1.7. Significance of the Study

The findings of the study will be befinial in the following ways;

The Ministry of Education and Sports will get information on challenges experienced in teaching of technical and vocational skills/subjects in secondary schools and National Teachers' Colleges. This information may be used to evaluate policies regarding the teaching and learning of technical and vocational skills/subjects in secondary schools.

Head-teachers and Principals may use the findings to canvass support for technical and vocational education from workshops and industries in their vicinity and from the parents. The teachers and tutors may use the findings as a platform for airing out the challenges they face in the teaching technical and vocational skills/subjects.

The findings may also be used to educate parents about their role in supporting technical and vocational education in secondary schools in Uganda. This may even later result into effective technical and vocational education that will benefit their children who opt for those subjects.

Finally the whole nation may benefit from improved technical and vocational education as a result of a significant number of well trained students who will graduate from the programme. These students will reduce the level of unemployment when they become self employed.

1.8 Scope of the Study

There are many institutions that may offer technical and vocational education, but this study focused on secondary schools in Wakiso and Kampala districts. The respondents in the study were from the Ministry of Education and Sports that's to say policy makers, and department heads in the department of Teacher Education. Other respondents were head-teachers and teachers of the selected secondary schools, principals and tutors from the selected National Teachers' Colleges. Some members of staff of Kyambogo University and Makerere University were among the resourceful respondents.

1.9 Limitations of the Study

The study faced the following limitations:

- i. Because respondents were selected from two districts, the area was too big to cover, given the available resources. Therefore, respondents' inclusion was an experience about the research problem. Respondents who had been involved in the programme are the ones that were selected.
- ii. Due to time and financial constraints, it was not possible to select all the major stakeholders. This limited the sample size and generalisability of the findings.
- iii. The researcher failed to get sponsorship; hence he was limited to available finances.

1.10 Assumptions of the Study

The study was based on the following assumptions:

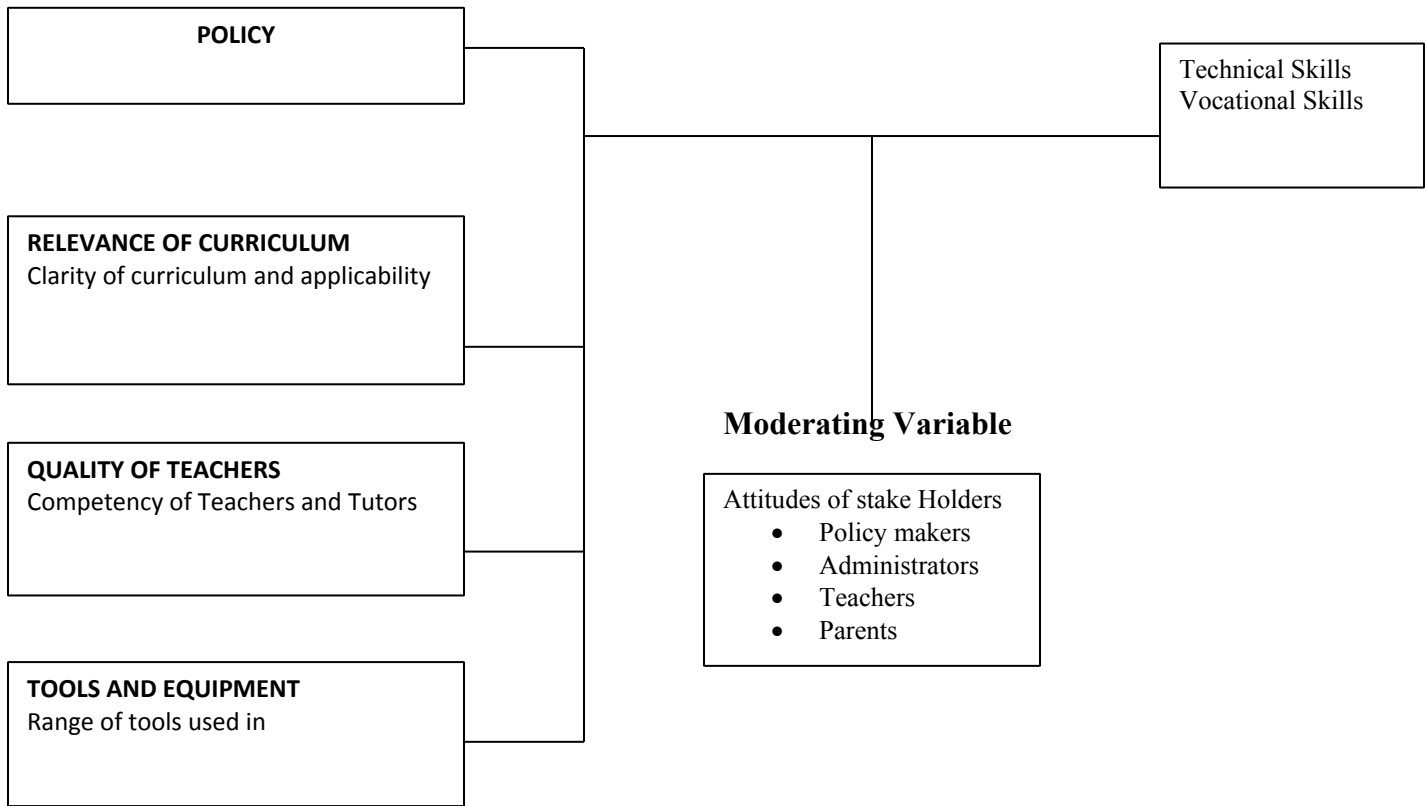
- i. That all respondents would be honest and respond positively to all the issues in questionnaires.
- ii. That all teacher training colleges have similar resources and training facilities.
- iii. That all secondary schools teaching technical and vocational skills/subjects had qualified teachers and similar facilities.
- iv. Positive attitude among stakeholders would lead to better technical and vocational education.
- v. Adequate resources in the schools will facilitate better educational programmes.

1.11 Conceptual framework

Relationship between Factors Affecting Teaching Of Technical And Vocational Skills In Secondary Schools

Independent Variables

Dependent Variable



The above conceptual framework is based on Gross et al (1971) and fullan(1992) suggestions on implementing a successful education innovation such as technical and vocational education. They say that, producing well equipped students with technical and vocational skills depends on: government policy towards technical and vocational skills, clarity of educational curriculum, competency of tutors and teachers, and availability of resources (workshops, tools and equipment).

1.12 Study Variables

The first variable was the government policy towards the teaching of technical and vocational skills

In order to produce citizens who are job makers and not job seekers, there should be government policies that promote the teaching of technical and vocational skills in secondary schools.

According to Kaloka, (2001) in his paper, “Education of the Head, Heart and Hand”, the education for national development should enable the citizens to become job makers as opposed to job seekers. The citizen should be capable of producing and manufacturing for home consumption and foreign market. He went on further to say that the national educational system that should encourage production and manufacture by all citizens is that of technical and vocational education.

The fact is, policies are good, like introduction of comprehensive and vocational secondary schools, Vocationalisation of entire education system and creation of universal secondary education, but they are not fully implemented. They have remained on paper.

Those to implement the policies are the; Ministry officials, National Curriculum Development Centre (NCDC), National Teachers Colleges and Teachers. Implementation would be possible but the attitude of policy makers matters, especially the political will. With positive attitude the policy must have provisions allowing for adequate funding, proper rating of subjects not making technical and vocational subjects optional, providing start-up tools and motivating teachers who choose to train as technical and vocational teachers. This would create students who are well equipped with technical and vocational skills. Where there is a political will, there is always away.

The second independent variable was relevance of the National Teachers' College and secondary School Curriculum

The National Curriculum Development Centre (NCDC) is responsible for developing the relevant curriculum for secondary schools. The curriculum should provide technical and vocational subjects which should be compulsory and provides hands on teaching and not theoretical teaching of skills. Also, the curriculum for NTCs should provide for the teaching of technical and vocational skills. In order to implement the curriculum, there has to be a policy allowing proper implementation by adequate funding of teacher training colleges and even students who choose to train as teachers for technical and vocational skills. A tutor is one of the persons responsible for implementing the NTC curriculum. Thus, this tutor should be proficient enough in technical and vocational skills and the institution should be well equipped with the necessary tools and equipment.

The third variable was the quality of the tutors and teachers of secondary schools.

A teacher is an important person in the implementation of the school curriculum. This teacher should be well equipped with technical and vocational skills. If the teacher is competent enough in technical and vocational skills, the students are also likely to end up well equipped with tangible technical and vocational skills.

Further more, there has to be positive attitude from the ministry, administrators and parents if the teacher is to effectively implement the curriculum. The ministry should fund the institutions adequately, provide necessary tools and equipment and motivate the teachers for technical and vocational skills. For the parents, if the teaching of technical and vocational skills is compulsory,

parents would develop a positive attitude and even be willing to support the institutions funding so that their children can acquire life long practical skills.

The fourth variable was the availability of tools and equipment in NTCs and secondary schools

The researcher wanted to establish whether NTCs and secondary schools are well equipped with basic tools and equipment to facilitate the teaching of technical and vocational skills. It was established that these institutions are inadequately equipped with tools and equipment and this hinders the effective teaching of the practical skills.

In the actual fact, the policy may be excellent, the curriculum appropriate, the tutors and teachers competent enough to teach practical skills, but the unavailability of tools or poor facilities will lead to insufficient teaching of technical and vocational skills. It is so because it is hard to direct practical skills where there are no workshop facilities.

Dependent variable

The dependent variable in the study was the end result of producing students who are well equipped with technical and vocational skills who are job makers but not job seekers. This can be directly affected by the stakeholder's attitudes. The stakeholders are the policy makers, administrators, tutors, teachers and parents. If their attitude is negative, it will affect the teaching of technical and vocational skills.

1.13 Operational Definition of Terms

Vocational Skills: Refers to skills one acquires in order to be able to produce articles that earn him / her living i.e. learning to do (Gray, etal, 1998).

Technical Skills: Refers to the skills one acquires but followed by understanding theories, the principles of how to do something. It also includes learning how produce articles / products to earn a living. Such skills include, automobile mechanic, welding , cosmetics, as well as the traditional crafts (Wonacott, 2000).

Integrated Production : A subject which covers various vocational skills in the areas like- Home economics art and craft, woodwork, entrepreneurship, metal work, motor mechanics and electricity.

Vocationalisation of Education : “Vocationalisation of education,” means to integrate science, technical, intermediate technology, business and agriculture with academic subjects. This is done by teaching courses such as computer studies or agriculture. Vocational education also includes efforts to improve the relevance of general education courses by including skills and knowledge for the world of work, or the inclusion of career-based guidance activities and field trips (Lauglo, 2005).

Vocational education is one that prepares learners for jobs that are based in practical activities, and totally related to a specific occupation or *vocation*, in which the learner participates. Vocational education might be classified as teaching procedural knowledge(Windham, 1992).

Technical education is one where the learner directly develops expertise in a particular group of techniques or technology. Technical education offers knowledge and practical skills and attitudes with more scientific theory to a learner (UNESCO, 2001).

Community Polytechnics - Refers to Village vocational institutions to be used by people in that particular area and only to acquire those skills relevant to that particular area by exploiting the environment around them.

Methodology : Looks at the relevant methods, facilities, tools and equipments and innovations to be used to impart the required skills.

1.13 Conclusion

In this chapter the efforts that have been attempted so far to implement technical and vocation education in the world and Uganda in particular have been highlighted. The chapter has shown that whereas efforts have been made to teach technical and vocational skills in secondary schools, there are still challenges. These challenges relate to government policies, relevance of the NTC curriculum to the secondary school technical education, adequate and competent teachers. Other challenges relate to the attitude of stakeholders towards technical and vocational education and availability of tools and equipment in NTCs and secondary schools.

Therefore, the study sought to establish whether government policies influence the teaching of practical skills, the relevance of NTC curriculum to the teaching of secondary school technical education. Others were to investigate the quality and adequacy of teachers for technical and vocational skills, find out the attitude of stakeholders and to establish the availability of tools and equipment in NTCs and secondary schools. The chapter has also indicated how the findings will benefit technical and vocational education. The scope and limitations of the study are indicated. The study assumed that, all NTCs and secondary schools have similar training facilities and well trained teachers in technical and vocational skills. The conceptual framework gives the

relationship between the factors affecting the teaching of technical and vocational skills and the competence of students leaving secondary schools.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The implementation of vocational and technical education in Uganda is an educational change that was initiated by the educational review commission of 1989. However the success of any change depends on a number of factors. According to Gross et al(1971) the factors that influence the implementation of an education innovation are : (1) clarity of the curriculum, (2) adequacy of teachers' skills, (3) availability of instructional materials(resources and facilities), (4) management support at institution and national level, (5) attitude of stake holders. In addition , Fullan and Stigelbauer (1991) suggest that a successful education innovation goes through four stages which are initiation, implementation, continuation and outcome. They suggest that the success of implementation depends on stake holders competency, attitudes, quality of resources, curriculum clarity, and supportive government policies.

The literature review below is based on the above observations and explores the following themes;

1. Quest for a good technical and vocational education.
2. Government policy towards the teaching of technical and vocational skills.
3. Relevance of secondary education curriculum
4. Relevance of National Teachers' College curriculum.
5. The competency of teachers for technical and vocational skills.
6. Attitude towards the teaching of technical and vocational skills in secondary schools.
7. Availability of facilities in secondary schools and National Teachers' College.

2.2 Quest For A Good Technical and Vocational Education

A good education is of importance in every person's life because it prepares the individual to cope successfully with the demands of society. A good education should equip the individual with academic and technical skills that are essential for increasing his/her livelihood by having gainful employment and self-reliance. These skills include: ability to read and write, do arithmetic, relate well with other people and also do research in subjects of interest (Ssekamwa,1997).

In his book, "Education for Self- Reliance," Julius Nyerere, (1977), says that the purpose of education is to transmit from one generation to the next the accumulated wisdom and knowledge of the society and to prepare the young people for their future membership in the society and their active participation in its development.

According to Byaruhanga in his dissertation(2005), entitled “Challenges in the implementation of the Universal Primary Education(UPE) programme; A case of Mbarara Municipality, urges that ;

“Good education imparts useful skills that increase productivity, promote healthy living makes people easier to mobilize and nurtures democratic values, p. 34”

In his book ,“Education for Self Reliance”, Julius Nyerere(1977) says that the purpose of education is to transmit from one generation to the next the accumulated wisdom and knowledge of the society and to prepare the young people for their future membership in the society and their active participation in its development.

There is no doubt that the type of education that equips a person with both knowledge and skills is the best especially in developing countries. This is because, it is the appropriate education since , students learn to make things with their hands for a living. Vocational education may also benefit students with low socioeconomic backgrounds because investing in such education is comparatively inexpensive when contrasted with four year university training. There fore , the answer to quest for an excellent education should be the vocationalisation of the education system as recommendation by Kajubi (1989) . This can be achieved by integrating technical and business education with academic education in order to fulfill the objectives of producing skilled persons capable of earning a living independently (Gray,1988).

2.3 Government Policy towards The Teaching Of Technical And Vocational Skills

Since independence(1962), there have been some positive policies towards the teaching of technical and vocational skills in secondary schools, though there have been some forces against the implementation of the policies.

The talk about the need for introducing practical subjects in schools started after independence. In his policy proposals for Uganda educational needs, the president then, Obote, lamented that the training youth gets at school does not cater for self-employment nor does it give them an incentive to start something on their own, (Sifuna and Karugu, 1988). So this marked the beginning of thinking on the lines of quest for a good technical education. The authorities started thinking in the areas of curriculum reform. In January 1963, a commission under the chairmanship of professor E.B. Castle was appointed to report on education in Uganda (Sifuna and Karugu, 1988). While the commission was writing the report there were subject panels busy revising syllabuses. The secondary school syllabus also went under revision and it was completed in 1967. Some of the subjects included in the curriculum were practical and commercial subjects (Sifuna and Karungu, 1988).

In 1974, in the bid to strengthen the need to include vocational subjects uniformly in all schools, the National Curriculum Development Centre (NCDC) was established in order to help among other things, in the design of the curriculum for vocational education in primary and secondary schools. It was mandated with the responsibility of designing the curriculum at all levels of education except universities (Government White Paper, 1992).

The NCDC moved very fast and developed the syllabus which was piloted in Mengo secondary school. It started off well, but due to the 1979 war against Amin government, the 3rd president of Uganda, the institution got a set back, because people did havoc in looting institutions and workshops. The government that took over from Amin did not consider much continuing with

the policy of vocational education in secondary education. But Mengo secondary school went on limping and up to now it is one of the few secondary schools offering technical and vocational skills/subjects(Okello,2005).

Following the Kajubi report, the government in 2001 implemented the recommendation of vocationalising the entire education system at three education levels; primary, secondary, and tertiary. That is integrating technical and vocational subjects with academic subjects. Also in the 2006/2007 financial year, the government introduced free secondary education - Universal Secondary Education (USE). The main intention was to attract students to join secondary schools offering technical and vocational skills,(White Paper 1992). The government also introduced a universal post primary education and training (UPPET) programme with the intention of enhancing The universal; primary education(UPE). The minister of education and sports in her message on the centenary celebrations of Mityana secondary and Junior school ,Namirembe Bitamazire said that :

“It is imperative to develop human resource through education. Education is a primary strategy to the development process and a tool to alleviate poverty. It is was particularly against this back ground that the government made a commitment to provide UPE in 1997 and later UPPET aiming at sustainability of UPE an promotion of both intellectual and technical skills training critical to economic growth, social transformation and improving people’s lives(Mityana SS Centenary Magazine, 19-09-2009, issue No 1, p.4)”

Finally on this, a look at all the policies of government after independence shows that there has been a will to emphasize the teaching of technical and vocational skills in secondary schools. The only problem has been non implementation (Shiundu and Omulando, 1992)

2.4 Relevance Of Secondary Education Curriculum

Technology becomes a more prevalent part of the education culture with each passing year. Schools cannot ignore the impact of technology and the changing face of curriculum. Those who have done research on how technology will affect secondary schools, see vast changes occurring. Symonds (2000) asserts that the high school will look much different in 2018; it will be “High Tech High” (p.190). Furthermore, Bennett (2002) addresses the actual changes that must take place for technology usage to make a difference in curriculum design and start the alteration to Symonds “High Tech High.” Bennett suggests changes in the roles of teachers, students, and computers. Students would interact collaboratively with teachers and technology (Mwiria, 2005).

In the education system a curriculum is a every important document, which must be very effective if the products of that particular curriculum are to benefit the community or will meet the needs of the society. So a curriculum can be defined as a document outlining the subjects and any other activities to be done in a course or a programme in an education institution in a given period. A curriculum is also said to be the learning which is planned and guided by the school whether in group or individually inside or outside the school(Shiundu and Omulando,1992).

Whatever the definition is, the components of the curriculum are:-

- i. Goals, aims and objectives.

- ii. Content/ subjects - syllabus.
- iii. Learning experiences and methods
- iv. Evaluation, (Shiundu and Omulando, 1992)

Attitudes toward technology used within the school setting are an important and often overlooked component of successful curriculum integration of technology. Much of the research done on technology integration assumes that once appropriate technological tools are in place in the classroom, students, teachers, and parents will overwhelmingly support the change toward a technologically based curriculum (Tolmie,2001).

Since the colonial period, there have been changes in the secondary education curriculum as it is evidenced by the different education committees and commissions, which recommended secondary education curriculum to include technical subjects like, hand-craft, carpentry, woodwork, shoe making, brick making, agriculture and building. In 1953, the colonial office in London through the advice of Dr. Harlow, technical workshops were set up at nearly every primary school and some few junior secondary schools to facilitate the teaching of the skills.

After the independence of the three East African countries, Tanzania, Kenya and Uganda, there was a need for reviewing the secondary schools curriculum. And since independence a debate has been going on among the three countries whether the curriculum of the formal school system should be literary or practical. This has been largely due to the problem of unemployment among school leavers (Sifuna and Karugu, 1988). So the three countries set two main objectives which were expected to be fulfilled by the education systems after independence. These were:-

1. Producing future manpower with the technical skills and knowledge.
2. Inculcating values which contribute to the enrichment of people's lives and that were essential to the maintenance of a cohesive economic productivity (Sifuna and Karugu, 1988, P.).

In the 1960s, the three countries embarked on a massive expansion of secondary schools, and as a result after a while, they experienced a severe high rate of unemployment of secondary school leavers. The three countries attributed this to the type of education they inherited at independence as the cause for the high rate of unemployment. The three countries saw that the solution to the problem should be to change the secondary school curriculum so that it becomes relevant to the predominantly agricultural economies of east Africa (Sifuna and Karugu, 1988).

In this regard, Uganda set up a national curriculum development centre (NCDC) in 1974 so that it could help in bringing changes in the education system to make it more utilitarian. So, work has been going on with the NCDC making changes in the education system of Uganda at various education levels, primary, secondary, technical, vocational and other tertiary institutions (NCDC, 2000).

The recent major reform of the secondary school education system was the vocationalisation of the education system. In 1989, the government appointed a commission, "The Education Policy Review Commission," under the chairmanship of Prof. Sentaza Kajubi. The task was to review the education system of Uganda. In its report which was named "Kajubi report 1989", which was ready in 1991, one of its major recommendations was vocationalisation of the education system

of Uganda. When you borrow a leaf from the East African countries you will find out that they are also in the same line of vocationalising their secondary education(Government white Paper Report, 1992).

For instance, in Kenya, according to Kilemi Mwiria, in his Paper on Vocationalisation of Secondary Education in Kenya, 2002, the 1981 Presidential Working Party recommended among other recommendations the enrichment of the secondary school curriculum with technical subjects. And this led to inclusion of vocational subjects in the secondary school curriculum. And in the formal education today, technical and vocational subjects are included in the curriculum.

The education review commission arrived at this recommendation after realizing that, education at all levels has become too academic and theoretically oriented. As a result, the students completing primary, general secondary and even higher education are hardly capable of coping with practical problems and doing things with their own hands. They look forward to white-collar jobs and are ill-prepared for earning livelihood by working or making things by hand. They have no applied knowledge and skills, which they can use to become independent productive members of the society. (Kajubi Report, 1989).

The Kajubi commission developed specific aims and objectives for secondary education, which would bring vocationalisation.

- i. Enabling individuals to acquire and develop knowledge and an understanding of emerging needs of society and the economy.
- ii. Providing up-to-date comprehensive knowledge in theoretical and practical aspects of innovative production. Modern management methods in the field of commerce and industry and their application in the context of socio-economic development of Uganda.
- iii. Enabling individuals to develop basic scientific, technological, technical, agricultural and commercial skills required for self-employment.
- iv. Laying the information for further education;
- v. Enabling the individual to apply acquired skills in solving problems of the community.
- vi. Instilling positive attitudes towards productive work, (page 58).

A careful study of these objectives shows that they were aiming at promoting an effective teaching of technical and vocational skills in secondary schools. And indeed if these objectives can be realized and the education system is vocationalized, the products of the system would be able to lead a self-sustaining livelihood and to be productive members of the society after leaving school. This is so because they will have acquired some tangible technical and vocational skills (Gray, 1988).

In 2001, the government proposed the vocationalization of the education system. The government through the Ministry of Education and Sports introduced new subjects in primary and secondary education, and one of them is Intergraded Production Skills (IPS). Thereafter, the National Curriculum Development Centre (NCDC) embarked on the task of developing new curricula for both primary and secondary education. For primary the IPS subject was supposed to integrate, agriculture, home economics, commerce, business and simple technology.

For secondary the IPS subject would include – basic science (for arts students) or social studies (for science students) and any one vocational subject from these areas: - technical studies (wood work, metal work, technical drawing), home economics, business studies, agriculture and art and craft,(White paper, 1992).

The president, Yoweri Museveni, in his speech at the “International Youth Day” celebrations on the 12th August 2009, he challenged the Ministry of Education and Sports about the relevance of the curriculum, that it does not allow school leavers to create jobs. He also challenged the universities of running many programmes which do not create jobs but creates job seekers. He advised the Ministry to think of revisiting the education system. The theme of the day was, “Youth Unemployment is a challenge for all.” He therefore urged students to also choose marketable courses like, sciences, the service industry and modernized farming, (The New Vision, 13/08/2009). When the president’s speech is analysed, it is evident that, teaching of technical and vocational skills is the answer to the reduction of unemployment.

The Minister of education and Sports of Uganda, Namirembe Bitamazire, calls for more practical skills. And she asked Managers of Universities to develop practical courses aimed at developing employment creators rather than job seekers. She further went on to say that government is in process of reviewing the education curriculum enable institutions train personnel that match the market labour demands, as well as creative candidates ready to employ themselves. Furthermore she said that the government needs to review the whole education system to help us orient our students with ideas leading them to survive in the competitive world. A system to avoid the issue of reciting and cramming (The Monitor, 22-04-2009, p.17).

According to the researcher, these are positive ideas in the direction but such good ideas remain on paper and not implemented. Therefore there is need to compulsorily teach technical and vocational skills right from primary and secondary education. Finally, the researcher believes that the move towards making the curriculum for secondary schools relevant has been positive but the snag remains the implementation.

2.5 Relevance Of National Teachers' College Curriculum To Secondary School Curriculum

After discussing the quest for a good education, is the curriculum of the National Teachers' Colleges good enough to enable the tutor to produce a teacher who can confidently teach technical and vocational skills in secondary schools? The curriculum for NTCs should be relevant in order to produce a tutor competent in technical and vocational skills, who in return will produce a well equipped secondary school teacher with technical and vocational skills (Ankiewicz, et al., 2000). Before technical education can fully take off in secondary schools, changes must occur, Policy makers must explore issues dealing with teacher training and

securing equitable student access to technology. Technology must be part of the total curriculum, which means that teachers must be equipped with the skill necessary to effectively integrate technology in their classes.

The quality of education of any country depends on the quality of its teachers (). And according to Kajubi report, (1989) in Uganda the education system has not been able to produce the necessary number of trained teachers for numerous reasons. There are many untrained or licensed teachers teaching in schools. For example , the report indicates that in 1988, 40% of the secondary school teachers were untrained or under trained. The commission went on to reveal that the problem of shortage of trained teachers at various levels of education has become worse due to the failure of teacher training institutions to attract capable and interested students (Kajubi Report,1989).

To this problem we can also add that some students who join teacher training colleges sometimes have weak passes. Other students join teacher training colleges as a last resort and others join teaching profession as a stepping-stone. This is true because in the past years the teachers' pay has been inadequate leading many to leave the profession for green pastures like joining politics and Non Government Organisations (NGOs).

The commission then generated specific aims and objectives together with some recommendations in the bid to improve on the curriculum of national teachers training colleges. The commission developed four specific objectives but only one can be highlighted here for illustration purposes:

The second objective was to produce qualified and specialized teachers for languages, vocational and technical subjects (Kajubi Report, 1989). The commission continues to say that, in order to attain the aims and objectives, the current system of training of secondary school teachers be improved and brought in tune with the changes being proposed in the structure of secondary education.

To answer the call for improving on the curriculum for teacher training colleges, the department of teacher education and development studies of Kyambogo university in conjunction with the department of teacher education of the ministry of education and sports in 2005 embarked on developing a new curriculum for teacher training colleges in order to produce competent teachers who can teach the new subject, Integrated Production Skills (IPS) in both, primary and secondary schools. The question which remains lingering in ones mind is, are there well trained tutors in teacher training colleges to handle technical and vocational skills?

2.6 The Quality Of Teachers

A teacher is a trained and qualified professional who facilitates the acquisition of knowledge and skills Hilliard (1971) agreed that teaching as a profession requires a person who is learned and deals with organized knowledge as his business. Siberman (1973) gave a similar observation that “a teacher must of necessity be highly educated and should know what he has to teach”. In his recommendation, he pointed out that, “the teacher must be equipped with practical skills and methodology and should be conversant with the education theory.

The quality of education of any country depends to a large extent on the quality of its teachers. No education system can succeed without having adequately trained and motivated teachers. Teachers play a key role in proper implementation of various education policies and programmes (Kajubi report 1989). Diem (2000) maintains that few teachers actually use computers themselves due to a lack of support and little free time to learn the often-complicated operation of technological devices. According to (Diem, 2000, p. 495), technical support for teachers needs immediate improvement because, “teachers who are supported are less likely to feel threatened and develop more positive attitudes toward technology, and teachers who are supported are more likely to become proficient users of technology in the classroom” (Diem, 2000, p. 495).

Teachers must have the tools to engage students effectively, using technology. In order to achieve the proper training in technology integration, schools must make in-service relevant and recurring (Corcoran, 1999). “A country without a force of well trained technical teachers is like a bird trying to fly without wings, because a well skilled work force is the backbone of a nation. You can not have a skilled workforce unless you have well trained technical teachers (Brochure of KAL Institute of Technical Teachers’ Education, 2000).

The teaching of technical and vocational skills in literary schools has suffered a set back right from the colonial period, immediately after independence, and even to-date in this century. The main reason is the quality of the teachers who are not well trained to match with the technology of today. For example in Kenya , though vocational education has have been successful, they were not able to introduce new courses due to lack of qualified teachers(Kilime,2002). The government could vocational education has been successful in Kenya schools could not introduce

the new vocational courses in the curriculum as they lacked basic resources including teachers qualified to teach these subjects.

However, the de La War commission 1937 gave guidelines to the Uganda protectorate government that, technical education should be run as it is in Britain by attaching workshops to junior secondary schools to teach wood work and metal work to boys and kitchen work, sewing and laundry to girls (Ssekamwa, 1997).

This advice was not taken because the governor then, Sir Philip Mitchell had not yet developed interest in the teaching of practical skills in secondary schools. He preferred hand-work to continue being taught to pupils than giving them a full dose of practical skills. In 1951, things changed for the better in the area of teaching practical skills. Four recommendations were made and implemented.

The four recommendations were:-

1. Settings up a workshop at nearly every primary school and at a few junior secondary schools, depending on the availability of teachers capable of teaching some carpentry.
2. Establishing of technical schools but under the names of rural trade schools, farm schools for boys and home craft centers for girls. These were to be post- primary village art craft school to be for two years.
3. Upgrading the technical schools to junior secondary technical schools. Those to be upgraded were: Elgon technical schools, St. Joseph's technical school Kisubi, Arua technical school, Lira Technical School, Soroti Technical School, Fort Portal Technical School, Kahaya School, and Kabala Technical School.

4. To upgrade Kampala Technical Institute (KTI) at Nakawa to a higher status of a Senior Secondary Technical School, (Ssekamwa ,1977).

The first recommendation was a very good move, but the question still emerge that, who are to teach in these workshops? However, the workshops served their purpose. Those near primary schools produced traditional handwork and other old-time African crafts while those at junior secondary schools The problem was that there were no particular teachers trained to teach practical skills. The artisans were the ones doing the teaching and even the teachers who could teach also had no proper methodology of teaching practical skills. This was undermining the quality of the teachers, implying that whoever was imparting skills lacked the proper methodology of imparting skills. The situation was probably saved when the Uganda government opened teachers' training college which would fill the gap (ITEA, 1997).

In 1952, again the government set up a committee to report on African education, which was chaired by Sir Bernard de Bunsen who later became the principal of Makerere College. The committee didn't want to recommend Uganda to establish an institute of education on the lines of the British pattern as it was the case in Kenya after the recommendation made by the Binn's study group in 1951, (Sifuna and Karungu, 1988). Instead the committee recommended the setting up of central teachers' college which was expected to be a constituent member of the East African Institute of Education. In an attempt to implement his recommendation, the Uganda government opened the Kyambogo Teachers' College which was expected to become an institute of education later, (Sifuna and Karugu,1988).

In 1986 it became an institute and was renamed Institute of Teacher Education Kyambogo (ITEK). But it is believed that, the training of teachers to teach technical and vocational skills started in the 1950s.

Summing up the issue of quality teachers with appropriate methods of teaching practical skills, reference is made to the Government Whiter paper 1992 on “Education for National Integration and Development.” The 1989 Education Policy Review Commission stated that, the role of a trained teacher is to inspire in the learner the desire to learn and develop his/ her ability to acquire knowledge, and desirable skills. This meant to help the learner participate effectively in public life and national development. Government should therefore realize that well trained teachers have a significant role to play in forging effective links between the institution and the community. This is important in positively influencing national development programmes and in preparing the manpower that is essential for national development.”

2.7 Attitude towards Technical and Vocational Skills

An attitude, is described as positive or negative degree of affect associated with a certain subject. According to this point of view attitude towards technical and vocational education is just a positive or negative emotional disposition toward technical and vocational education (McLeod, 1992; Fischbein and Ajzen, 1974). This implies that ‘positive attitude’ means ‘positive’ emotional disposition, and ‘negative attitude’ means ‘negative’ emotional disposition. According to Alexiou, et al.(2000), positive attitudes towards technical education are influenced by the amount and quality of technical and equipment in workshops. Students, teachers and parents will like technical education if technical schools have good equipment. This is because availability of equipment motives study which eventually results into positive attitudes.

An attitude has three components: an emotional response, beliefs regarding the subject and behaviour towards the subject (Di Martino & Zan, 2001, 2003). From this point of view an individual's attitude towards technical and vocational education is defined in a more articulated way by the emotions that he/she associates with technical and vocational education (which, however, have a positive or negative value), by the beliefs that the individual has regarding technical and vocational education, and by how he/she behaves (Hart, 1989). If we choose this point of view, a negative attitude is not only an attitude characterized by a negative emotional disposition ("I don't like technical education"), but also an attitude characterized by an incorrect view of the discipline, (i.e. a vision of the discipline that is not shared among experts). This multi-faceted definition was adopted in this study, where attitude "represents an emotional reaction to an object, to beliefs about the object, or to behaviour towards the object". So, this review uses distinct constructs to assess attitudes: affects (feelings towards technical and vocational education); cognition (perceptions and information regarding technical and vocational education); and behavioural intentions and actions with respect to technical and vocational education, and perceived behavioural).

According to Awake (2006), there is a negative attitude towards vocational and technical education in some parts of the world. For example in Finland skilled labourers who have completed basic vocational training, such as carpenters, plumbers, welders, bricklayers, mechanics, and nurses were desperately needed. This was because emphasis had been put on higher education. The education system in Finland was producing doctors and masters of Arts and sciences. Vocational training was not highly valued.

In a recent comment by Mugema(2004) a veteran electrical technician, indicated that Ugandans have a negative attitude towards technical and vocational education. He therefore advised that parents need to change this attitude and encourage their children to take technical careers that assure self employment.

The prevailing attitude of students, teachers, parents, policy makers and the society in Uganda towards the teaching of technical and vocational skills can be traced as far back as the colonial period and immediately after independence. During the colonial period, the Protectorate Government never wanted to get involved in teaching practical skills in primary and secondary schools. That notwithstanding, even it took them long to be involved in education system in Uganda.

By 1925, missionaries had built many technical schools to be able to train many skilled people for construction work and for making of furniture for the missions. The department of education almost discouraged the efforts of the missionaries in their promotion of technical education. Because the department had given a negative impression to pupils and the society that technical education was for pupils who are not capable of going on well with academic subjects, more or less implying that such education was for failures.

As missionaries were the ones running both literary education and technical education before the government got involved, they had full control of the education system, operating primary and secondary schools. The early literary schools started by missionaries were Namilyango College by Mill Hill Fathers in 1902, Mengo High school in 1903, Gayaza High school in 1905, Kings

College Budo in 1906, Kisubi St. Mary's School in 1906, and Kamuli secondary school in the same year 1906 (Okello, 2005).

These schools were the foundation of training those who would take up white collar jobs, like clerks, and interpreters. But at a later stage, they found themselves giving students some knowledge in technical and vocational skills. The teachers who were manning the practical skills were those who had some training in technical trades from technical schools.

A good example was Mr. Weather Head, who was the headmaster of King's college Budo. From September 1912 having attended a course in hand-craft, advocated for teachers in his school who knew technical skills to relieve him and take over the hand-craft class (Okello, 2005).

The issue of technical education seemed to have gained some importance to the missionaries, although they lacked finance to indulge themselves in this expensive venture. However, most of the missionaries stressed the need of training Africans in handwork or call it manual work in order to cope with village life and to be productive citizens. They were emphasizing agriculture, woodwork, black-smith, brickwork, shoe repair e.t.c.

In Kenya, according to Kilemi (2002) , vocational courses (subjects) are more expensive to teach than the sciences and other academic subjects. Likewise, it is expensive to train technical teachers and even to retain them. The higher costs are due to the building and equipping of workshops and more expensive books (Paper on Vocationalization of Secondary Education in Kenya, (2002).

When you compare the two, the literary (academic) education and technical education, the academic education was meant to produce people for white-collar jobs, of course to work in urban settings and technical education to produce people for manual work, to work in village (rural) settings, (Ssekamwa, 1997). This created negative attitude towards the learning of technical and vocational skills. Because earlier on, right from the inception of technical education, the feeling was that it was meant for failures, and it was dirty work. So people of high class during the time, like chiefs never wanted their sons to go for "dirty work." The son of Sir Apollo Kagawa said, "*The chiefs send their boys to schools not to learn how to drive bullock wagons and to look after cattle, but they learn to be fitted for posts of high standing* (Ssekamwa, 1997, p).

This negative attitude towards technical education could be blamed on the missionaries themselves because they had no clear policy on technical education whereas it was not the case with academic education. They wanted to build technical education on the lines of Britain yet the general attitude in Britain about technical education was negative. Because the British had that desire of ruling the colonies in Africa, they had a feeling that, "*the ruler-ship of the world was not vested in the hands of the technical people but in the hands of those who went through the literary (academic) education,*" (Ssekamwa, 1997, p.99). The truth is that, colonialism brought much of the leadership skills as opposed to technical and vocationalized skills.

In 1925, the colonial government in London recommended that technical education (practical skills), should be offered in four ways;

1. Through government workshops on an apprenticeship basis.
2. Through special instructional workshops on a production basis.
3. Through properly instituted technical schools.
4. Through primary schools where village crafts would have to be taught (Ssekamwa, 1977, p.123).

The policy came when the protectorate government had just got involved in the running of the education system. But at that time there were no trained African teachers who would teach practical skills to pupils, because the training of teachers started in the 1950s. Those who were to teach were the ones who had acquired indigenous technical skills and artisans who were graduates of technical schools.

In 1930, there was an education reform with the aim of reducing on literacy education. This was to create two sections of schools; the Middle and Central schools. The middle schools were purely meant for literacy (academic) subjects. The central schools were running a practical course combining subjects in agriculture, carpentry, pottery, iron work, brick making, building and typing. To attract pupils to these schools, the fees were made lower than that of middle schools, but still the numbers were low, because of the earlier conceived perception that technical education was for failures.

This was even made worse by the governor then, Sir Philip Mitchell in 1935, whose interest was in academic education to produce Ugandans who could take up junior administrative jobs

(Ssekamwa, 1977). So the central schools collapsed. After the collapse of the central schools, the training of practical skills remained in technical schools and the handwork subject offered in primary schools.

The closure of central schools was unfortunate because pupils or graduates of central schools would have been very useful in society and would have been self-reliant because of the skills gained. Even the policy makers had negative attitude towards teaching of practical skills and this was directly fighting the quest for a good education. Another cause of negative attitude was that the technical and vocational subjects were not examinable at that time. At least today technical and vocational subjects are examinable by the Uganda National Examinations Board but not compulsory. The current attitude towards technical and vocational education in Uganda can be summarized by Mulumba's(1966, P.22) *“Comments Parents’ and education administrators’ attitudes favoured academic more than technical, vocational education and training. An academic tradition was so biased in favour of arts that any person connected to technical training was regarded as intellectually inferior. Capable people were supposed to study philosophy, economics, administration and such noble subjects. Those with less brain power were suppose to go for technical training”*.

2.8 Availability Of Facilities At National Teachers Colleges And Secondary Schools

According to Bloom's Taxonomy, there are three main learning domains, the Cognitive, Affective and Psychomotor domains. And with modern education in quest for a good education, the three must be integrated so that students can learn knowledge, feeling and doing. The cognitive domain is for knowing, the affective domain is for feeling and attitudes and the psychomotor domain for doing or physical action. And any experience in which a student

participates has a degree of knowing, feeling and doing. So the three should be integrated during the teaching-learning process and during the training of teachers and tutors if quality is to be realized.

According to Sifuna and Karugu(1988), vocational training is designed to teach the knowledge, skills and attitudes required for proficiency in a certain job or task.

In reality, when you talk of teaching the proposed subjects, the integrated production skills (IPS) which include:- home economics, agriculture, woodwork, metal work, business, commerce, electricity and others, there is no way one can avoid having the necessary facilities in place, like workshops with the necessary basic tools and machinery. During the colonial period some good policies were made and which also can be applicable today.

In 1951, Dr. Harlow, the Assistant Technical Education Adviser to the colonial office in London was sent to Uganda by the colonial office to study what meaningful steps to be taken in the area of teaching practical skills. As a result of his visit to Uganda, DR. Harlow advised the colonial office in London that the four developments in technical education as they were recommended by the 1952 de Bunsen education committee be implemented. And one of the recommendations was, “setting up of workshops at nearly every junior secondary school depending on the availability of teachers capable of teaching some carpentry (Ssekamwa, 1999).” This was implemented and it worked very well for sometime until other factors failed it, especially the negative attitude and the lack of trained teachers for practical skills.

If technical and vocational skills are to be taught adequately, some of the recommendations made by the Kajubi report, 1989 should be implemented, though teaching practical skills is an expensive venture. Some of the recommendations of the commission were:-

- i. Government should renovate, repair and replace buildings and equipment the teachers training college as a matter of priority.
- ii. The NTCs and universities should continue to offer general course for all students who enter the teacher training programmes.
- iii. One of the NTCs should be converted in a specialized teachers' college for only training those to teach technical and vocational skills/subjects.

Presently some NTCs and secondary schools lack sufficient facilities to adequately facilitate the teaching of technical and vocational skills in Uganda as clearly was put by government that, “there is lack of serious treatment of vocational subjects at secondary level, and that facilities and equipment for teaching science and vocational subjects are seriously inadequate” (Government White Paper, 1992), In a study done by Kunguvu (2000), to assess the quality of available facilities in secondary schools teaching technical and vocation education, it was found that resources, and facilities in these schools were not adequate. The few machinery were not adequate. He concluded that this may lead to reduced interest and efficiency in technical education among teachers. According to Kilemi(2002), All the vocational subjects with the exception of the business studies courses need workshop facilities for teaching the practical aspects of the curriculum. In almost all cases, the cost of setting these workshops up and equipping them is higher than that of similar facilities for the sciences. In a recent comment by the chief of Uganda National Examinations Board, Mathew Bukenya, lack of facilities in schools that teach technical and science was the major cause of failure at O’level, (Businge, 2009).

2.9 Conclusion

This chapter reviewed literature about the factors affecting the teaching of technical and vocational skills/subjects in secondary schools. The review has indicated that in order for technical and vocational education to succeed, government policies have to be supportive, the government has to fund training of teachers, equip technical education institutions, motivate technical teachers and put in place appropriate technical education guidelines. The technical education NTC and secondary school curricula have to be relevant to the teaching of technical and vocational skills. The attitude of teachers, parents, and students towards technical education has to be positive, in order to enable effective teaching. The attitude of technical education policy makers should be supportive to technical and vocational education. It is also important for facilities in NTCs and secondary schools to maintain and effectively use technical and vocational education equipment .

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 introduction

This chapter presents the plan of action that was followed to conduct the study. It describes the study design, the study area, the population and the respondents. The chapter also shows the sampling procedures, the instruments for data collection, the procedure for data collection and the methods for data analysis.

3.2 Research Design

The study was based on an exploratory- survey design. This design was appropriate because the study needed a cross section of data from a number of respondents (Trochim,2006).. Also according to (Mugenda & Mugenda, 1999). , a survey would enable quick and reliable data collection in a short period of time. The study explored the factors affecting the teaching of technical and vocational skills in secondary schools in Uganda. The study used quantitative and qualitative approaches. The study collected in-depth responses, opinions and views of the respondents about the research problem.

3.3 Study Area

The study was conducted in selected secondary schools which teach technical and vocational skills/subjects in Wakiso and Kampala districts, Uganda. Secondary schools were both government aided and privately owned. The Ministry of Education and Sports, and National Teachers' Colleges in Uganda ,were part of the study area.

3.4 The Target Population

Target population refers to population from which a sample is taken. It is important that the population taken is a representative of the entire population of the study area,(Kombo and Tromp, 2006 p76). In this study the target population included officials from the Ministry of Education and Sports who are the policy makers, principals and tutors of National Teachers Colleges, head teachers of selected secondary schools and teachers who teach technical and vocational skills/subjects.

3.5 Sampling

From the target population, the sampling focused on respondents who have the required information about the research problem. These came from the Ministry of Education and Sports, National Teachers' Colleges, and from the selected secondary schools which have technical and vocational education. From the Ministry, the Minister, Permanent Secretary, Commissioners for general and comprehensive education, Commissioners and staff members from department of teacher education were purposively sampled. The Principals and tutors from NTCs were included among the respondents. The table below shows the categories and number of respondents from each area.

Table 1: Respondents by category

MINISTRY OF EDUCATION	Population	Sample
Commissioner General Education Secondary	1	1
Commissioner Comprehensive Secondary Education	1	1
Commissioner Teacher Education Department	1	1

Commissioner Business, Technical, Vocational Education and Training	4	2
Some staff members of Teacher Education Department	8	5
NATIONAL TEACHERS COLLEGES (NTCs)		
Principals	5	2
Tutors	42	16
WAKISO DISTRICT		
Head teachers of selected secondary schools	14	6
Teachers of Technical and Vocational Skills	60	39
KAMPALA DISTRICT		
Head teachers of selected secondary schools	21	5
Teachers of selected secondary schools	42	24
TOTAL:	208	100

As shown in the table above, a total of 100 respondents participated in the study. Ten percent(10%) were policy makers from the ministry of education, 14% were from National Teachers' Colleges and the majority 74% was from secondary schools

3.6 Sampling Procedure

Multi-stage sampling was used. The categories of respondents were selected purposively. This was appropriate to get respondents rich in information. Then after selecting categories, individual respondents were selected randomly from each category. This was done in order to give all the elements in the population an equal chance of being among the samples. The respondents were found in their places of work.

3.7 Instruments of Data Collection

The researcher used questionnaires to collect data. The questionnaires had open-ended and closed questions. The instruments were developed by the researcher according to the research questions and the main themes of the study. The instruments were evaluated and approved by the supervisors. The reliability of the instruments was established in a pilot study that was done before using it to collect the final data. The trial sample consisted of 20 respondents (3 policy makers 6 heads, 2 principals, 4 tutors and 5 teachers).

3.7.1 Questionnaire

The researcher-constructed questionnaires were based on the research objectives and administered them to the respondents. Questionnaires were used because, they are free from researcher's bias, they allow respondents to answer in their own words when open-ended, they give enough time to the respondent to go through the responses given, and can reach as many respondents as possible. The method also enables researcher to sample respondents who are not easy to approach if it is to be face-to-face interview (Ary et al, 2002). Since my study was exploratory, the questionnaire had more open-ended questions than closed ended ones.

3.7.2 Reliability of the instrument

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda and Mugenda, 2003). The data was entered in Statistical Package for Social Sciences (SPSS), and a Cronbach alpha test of reliability was measured. As alpha correlation coefficient greater 0.5 (Amin, 2005), was targeted in order to regard the

instrument as reliable enough for research purposes. The table below shows the reliability coefficients of each of the three questionnaires.

Table 2: Reliability coefficient of the questionnaires N=100

Section	No of items	Alpha coefficient
Policy Makers	22	0.83
Head teachers and principals	33	0.79
Teachers and Tutors	27	0.87

As shown in the table above, the reliability coefficient for policy makers was 0.83, head teachers and principals was 0.79, while that of teachers and tutors was 0.887. All the coefficients of the three instruments were well above 0.5, the value required for research purposes.

3.7.3 Validity of the instrument

Validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study (Mugenda and Mugenda, 2003). Validity therefore, has to do with how accurately the data obtained in the study represents the variables of the study. The face validity of the instrument was established by the supervisors. Face validity is a level at which the instrument items appear to be related to the research questions (Amin, 2005). All the items in the instrument were evaluated and found to be related to the research objectives. Other types of validity such (construct, predictive, concurrent) could not be established because of time constraints. Therefore, it can be argued that the instrument had both content and face validity.

3.8 Procedure of Data Collection

In data collection, the researcher contacted the respondents using the letter of authority from the university. Questionnaires were delivered to the respondents physically to their work places. The researcher explained the purpose of the study and its benefits to technical and vocational education and requested them to provide accurate data. The researcher assured the respondents of confidentiality of their responses. Respondents were given an allowance of one week to complete the instrument. The completed instruments were collected after a week and considered for analysis.

3.9 Data Analysis

Data analysis involved editing coding presenting and analysis of data. The researcher carefully scrutinized the collected questionnaires to ensure that all questionnaire items were fully completed. Data was accurate and consistent with the research objectives. The second step was coding. Themes were developed in line with the objectives and then responses were placed under these themes. This preliminary data summary made it easy to enter data into SPSS and made analysis efficient. Then data was entered into SPSS (Statistical Package of Social Sciences) for further analysis. In case of closed questions, frequency tables and percentages were calculated. In regard to the questions that require respondents to show the extent to which they agreed or disagreed with the statements on the major research questions, a percentage of agreement and disagreement was calculated out of 100%. Respondents agreed with a statement the percentage was higher than 50. The more the statements with percentages higher than 50, the more the percentage of agreement and vice versa.

In case of open-ended questions, the frequency of responses and the percentage were calculated. Responses with higher frequency were taken to be more significant.

3.9 Conclusion

In this chapter, the researcher described the research design which was an exploratory survey design. The study area from which the target population was expected included selected secondary schools, ministry of education and sports, and National Teachers' Colleges. The size of the sample and the sampling procedure were described. The researcher also explained the nature of instruments and procedure of the data collection. The reasons for the methods selected were given and the data analysis was explained.

CHAPTER FOUR

DATA PRESENTATION , ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the findings of the study that explored the factors affecting the teaching of technical and vocational skills in secondary schools in Uganda. The study explored the clarity of present curricula for secondary education and National Teachers' Colleges in the teaching of technical and vocational skills. It established the influence of the competency of teachers of

technical and vocational education on the teaching of technical and vocational skills secondary schools. It explored the influence of the attitude of the stakeholders on the teaching of technical and vocational skills in secondary schools. Finally, the study assessed the influence of facilities and equipment in the training environment on the teaching of technical and vocational skills.

Descriptive statistics were used to present and analyze data. The tables constructed show the most frequent responses and percentage of frequency on the major themes of the study. A number of demographic variables of respondents that were thought would influence the validity of findings were studied and are presented first.

4.2 Demographic Data of respondents

4.2 1 Respondents

Respondents included policy makers, heads of institutions and schools, teachers and lecturers of institutions,

Table 3: Category of respondents (N =100)

Category	Number	Reason for inclusion
Policy makers	10	Make, supervise and implement policies

Head teachers, principals	20	Implement policies
Teachers and Tutors	70	Implement and evaluate policies
Total	100	

As indicated in the Table 3 above, a total of 100 respondents participated in the study. Among policy makers, were Deputy Directors qualifications standards, Commissioner secondary education. Commissioner business education, Commissioner primary teacher education, Commissioner technical education, Director Business education and Deputy Director industrial training. The above officials are the ones responsible for making policies governing the teaching of technical and vocational education both at primary, secondary and tertiary level. So they had a deeper understanding of the research problem.

The category of head teachers and Principals included head teachers and deputies of secondary schools that teach vocational and technical education. It also included Principals and deputies of tertiary institutions which train technical education teachers for secondary schools, technical schools and primary schools. The category of teachers and tutors, included teachers of technical and vocational subjects both at, secondary and tertiary level.

4.2.2 Demographic details of respondents

Table 4: Gender and work experience of respondents

Category	Gender	Frequency	Percentage	Mean Working Experience
	Male	7	(60%)	

Policy makers				8
	Female	5	(40%)	
	Male	1	(50%)	
Principals				17
	Female	1	(50%)	
	Male	8	(72%)	
Head Teachers				17
	Female	3	(28%)	
	Male	8	(50%)	
Tutors				13
	Female	8	(50%)	
	Male	43	(73%)	
Teachers				13
	Female	16	(27%)	

As indicated in the table above, among policy makers, 60% were male while 40% were female. In regard to principals and deputies, 50% were male while 50% were female. As far as head teachers and deputies were concerned, 72% were male while 28% were female. As far as tutors are concerned, 50% were male while 50% were female. In the case of teachers, the male were 73% while the female were 27%. Male respondents were more than the female because the researcher experienced a challenge of balancing respondents because ,technical and vocational careers have been traditional regarded as being for men. Despite this anomaly, at least 30% of all respondents were female, so feminist views were represented. Each category of respondents

indicated the number of years they had worked in their positions. This was done to measure respondents' knowledge of issues regarding technical and vocational education. As shown in the table above, policy makers had an average of 8 years experience, heads and principals 17 years and teachers and tutors 12.8 years.

Table 5: Titles and Institutions of respondents

Category	Title	frequency	Percentage	Institution
Policy makers	Director	3	(45%)	Ministry
	Commissioner	5	(55%)	Ministry
Principals	Principals and deputies	2	(22%)	NTC
Head teachers	Head Teachers and Deputies	11	(78%)	Secondary school
Tutors	Lecturer	16	(14%)	NTC
Teachers	Teacher	63	(86%)	Secondary school

As shown in the Table 5, respondents had adequate knowledge of the research problem because of the responsibilities they held and the institutions they belong. Tittles in the ministry of education usually represent experience. The higher the title, the more experience the person has in the specific responsibility. In the case of policy makers, 45% were directors of departments related to technical education while 55% were commissioners of these departments. Policy makers held some of the highest administrative and policy making responsibilities in technical

and vocational education. So they were able to give reliable data. As far as the heads and principals are concerned, 83% were from secondary school teaching vocational and technical skills while 22% were administrators of institutions that train and teach technical and vocational education teachers. In the case of teachers and tutors, 86% were teachers of technical and vocational skills in secondary schools while 14% were tutors in teacher training and technical colleges. Therefore the sample had a reasonable representation of respondents who were concerned with the research problem and had in- depth understanding of it.

Table 6: Data on Technical and Vocational Specializations

Category	
Policy makers	Technical education(34%), Vocational Education(28%), science education(24), Engineering(14%)

Head teachers, Principals	Agriculture(22%), Mechanical Engineering(22%), Home Economics(22%), Business studies(16%), Electrical and electronics engineering(5.6%), Building engineering(5.6%), Science education(7%)
Teachers and Tutors	Art and Design (12.9%), Agriculture (22.9%), Business studies (12.9%), Home Economics (10%), Carpentry and Joinery (5.7%), technical drawing (5.7%), others (Mechanical Engineering, Electrical and electronics engineering, Metal Work, Clothing and textile technology, Music Education, Science Education, Information Technology, Food and nutrition) (15%)

The Table above shows the technical and vocational field of respondents. As far as policy makers are concerned, their specialization spanned across four fields. The majority (34%) had specialized technical education. In the case of heads and principals, their specialization spanned across 7 fields, the majority being agriculture (22%), mechanical (22%) and Home economics (22%). As far as teachers and tutors are concerned, their specialization spanned across 15 fields. The majority was agriculture (22.9%), art and design (12%) and Business studies (12.9%). This implies that the findings are more representative since respondents came from a cross section of technical fields

4. 3. Impact of Government Policies on the Teaching of Technical and Vocational Skills in Secondary Schools

The first objective of the study was to establish the impact of government policies on the teaching of technical and vocational skills in secondary schools. The researcher first presents the current status on the teaching of vocational education in secondary schools in Uganda. The findings revealed that out of 918 secondary schools in Uganda, only 36 (4%) teach vocational and technical skills. The respondents also indicated that there is no special funding given by government to promote technical and vocational education. In regard to support given by local governments, the respondents revealed that no support in form of funding and materials is given. Policy makers mentioned some special policies that the government has put in place to promote technical and vocational education as shown below.

Table 7: Policy Makers’ responses on Special Government Policies to promote teaching of technical and Vocational skills in secondary school

Special Policies	Frequency	Percentage
UPPET program	2	20
EFA (Education for All)	3	30

UPE (Universal Primary Educ.) and USE (Universal Secondary Education).	1	10
Vocationalisation of education	1	10
BTVET, policy enacted in 2008	3	30
Total	10	100

The policies that were implemented as a result of the , President’s announcement in his manifesto during presidential campaign in 2000-2001 were, UPPET (20%), EFA(30%), Universal Primary Education (UPE) and Universal Secondary Education (USE) (10%), Vocationalisation of education system (10%) , Business Technical Vocational Education and Training (BTVET) (30%).

Table 8: Policy Makers’ responses on Plans for School drop outs

Plans for Secondary school drop outs	Frequency	Percentage
Establish and equip polytechnics	2	20
Establish and equip technical Institutions	3	30
Implement business and tech, voc education.	5	50
Total	10	100

In regard to plans for school drop outs, the government planned to establish and equip polytechnics (20%), establish more technical institutions (30%) and implement business and technical education curriculum in primary and secondary schools (50%).

Respondents' views on whether government policies have had an impact on the teaching of technical and vocational education were explored. The views are indicated in the tables below.

Table 9: Policy Makers' Responses

Response	Agree (%)	Disagree (%)
The government has put clear policies to promote the teaching of technical and vocational skills in SS	82	18
The ministry of education has difficulties in implementing technical and vocational education policies	64	36
Policies have had an Impact on the teaching of technical and vocational skills in Uganda	46	54

Table 10: Heads and Principals' Responses

Response	Agree(%)	Disagree (%)
The government has put clear policies to promote the teaching of technical and vocational skills in SS	72	28

The ministry of education has difficulties in implementing technical and vocational education policies	61	39
Policies have had an Impact on the teaching of technical and vocational skills in Uganda	50	50

Table 11: Teachers and Tutors Responses

Response	Agree (%)	Disagree (%)
The government has put clear policies to promote the teaching of technical and vocational skills in SS	52	48
The ministry of education has difficulties in implementing technical and vocational education policies	46	54
Policies have had an Impact on the teaching of technical and vocational skills in Uganda	69	31

As indicated in the Tables 9,10 and 11 above, the government has put in place clear policies to promote the teaching of technical and vocational skills in Secondary Schools, 82% of policy makers agreed, 72 % of heads and principles agreed and 52% of the teachers and tutors agreed. As far as the ministry of education having difficulties in implementing technical and vocational education policies, 64% of the policy makers agreed, and 61% of heads and principals agreed and only 46% of teachers and tutors agreed. In regard to whether Policies have had an Impact on the teaching of technical and vocational skills in Uganda, 46% of policy makers agreed, 50% of heads and principals agreed and 69 % of teachers and tutors agreed.

4. 4 Clarity of curricula for secondary education and National Teachers’

Colleges to the teaching of technical and vocational skills

The second objective of the study was to establish the clarity of curricula for secondary education and National Teachers’ Colleges to the teaching of technical and vocational skills. The findings are shown below.

Table 12: Policy makers’ responses

Response	Agree (%)	Disagree (%)
The secondary school curriculum is responsive to the teaching of technical and vocational skills	23	77
The present NTC curriculum meets the challenges of producing teachers who can adequately teach technical and vocational skills in secondary schools	52	48

Table 13: Heads and Principals’ responses

Response	Agree (%)	Disagree (%)
The secondary school curriculum is responsive to the teaching of technical and vocational skills	39	61
The present NTC curriculum meets the challenges of producing teachers who can adequately teach technical and vocational skills in secondary schools	56	44

Table 14: Teachers and Tutors' responses

Response	Agree (%)	Disagree (%)
The secondary school curriculum is responsive to the teaching of technical and vocational skills	38	62
The present NTC curriculum meets the challenges of producing teachers who can adequately teach technical and vocational skills in secondary schools	43	57

In the Tables 12, 13 and 14 above, respondents indicated the relevance of the NTC and secondary school curriculum in meeting the needs of teaching vocational and technical skills in

secondary schools. The findings reveal that 77% of policy makers, 61% of heads and principals and 62 % of teachers and tutors disagree that the secondary school curriculum is responsive to the teaching of technical and vocational skills. In regard to whether the present NTC curriculum meets the challenges of producing teachers who can adequately teach technical and vocational skills in secondary schools, 52% of policy makers agreed, 56% of heads and principals agreed and only 43% of teachers and tutors agreed.

4. 5 The Influence of the Competency of Teachers of Technical and Vocational Education on the Teaching of Technical and Vocational Skills Secondary Schools

The third objective of the study was to establish the influence of the competency of teachers on the teaching of technical and vocational skills in secondary schools. The teachers indicated the institutions where they trained from and their qualifications in the Table 15 below.

Table 15: Institution where technical and vocational training was acquired

Institution	Frequency	Percent
NTC	20	28.6
University	45	64.3

Technical college	2	2.9
Personal experience	3	4.3
Total	70	100.0

In the table above, teachers and tutors indicated the institutions where they had their technical and vocational education. The majority had it from university 45 (64%), the rest got from NTC 20 (28.6%), technical college 2 (2.9%) and 3 some few from personal experience (4.3%). Therefore the findings show that respondents had got training from reputable institution and so their teaching would be very effective. Head teachers also indicated the number technical and vocational education teachers they have. On average, each school had 7 teachers ranging from 2 to 14. The Table 16 below indicates respondents' view of the quality and quantity of technical and vocational education teachers in secondary schools.

Table 16: Whether the ministry of education has enough qualified teachers to teach Technical and vocational skills

Category	Agree (%)	Disagree (%)
Policy makers	20	80
Head teachers Principals	15	85
Teachers and Tutors	30	70

As indicated in Table 16 above, respondents disagreed that the ministry of education has enough teachers to teach technical and vocational skills. The policy makers by 80%, head and principals by 85% while teachers and tutors by 70%. This implies that the teaching of technical and vocational skills is not effective.

4.6 The Influence of The Stake Holders on the Teaching of Technical and Vocational Skills in Secondary Schools

The fourth objective of the study was to establish the influence of the attitude of the stake holders (tutors, administrators, and teachers) on the teaching of technical and vocational skills in secondary schools.

Table 17: Policy makers' responses

Response	Agree (%)	Disagree (%)
It is necessary to teach technical and vocational skills in secondary schools	80	20
Technical and vocational education is the vehicle for	45	55

industrial development and modernization		
Policy makers have very poor attitude towards the teaching of technical and vocational skills	72	28
The parents of this school/NTC support us in the teaching of technical and vocational skills	48	52
Prior knowledge of technical and vocational skills at secondary school level influences the same at post secondary level	65	35
whites have influenced most people to believe that technical and vocational skills were meant for academic failure	82	18

Table 18: Heads and Principals' responses

Response	Agree (%)	Disagree (%)
It is necessary to teach technical and vocational skills in secondary schools	83	17
Technical and vocational education is the vehicle for industrial development and modernisation	44	56
Policy makers have very poor attitude towards the teaching of technical and vocational skills	71	29
The parents of this school/NTC support us in the teaching of technical and vocational skills	50	50

Prior knowledge of technical and vocational skills at secondary school level influences the same at post secondary level	67	33
Whites have influenced most people to believe that technical and vocational skills were meant for academic failure	84	16

Table 19: Teachers and Tutors' responses

Response	Agree (%)	Disagree (%)
It is necessary to teach technical and vocational skills in secondary schools	70	30
Technical and vocational education is the vehicle for industrial development and modernization	47	53
Policy makers have very poor attitude towards the teaching of technical and vocational skills	81	19
The parents of this school/NTC support us in the teaching of technical and vocational skills	49	51
Prior knowledge of technical and vocational skills at secondary school level influences the same at post	70	30

secondary level		
Whites have influenced most people to believe that technical and vocational skills were meant for academic failure	81	19

Respondents in Tables 17, 18 and 19, indicated the attitude of policy makers, heads, teachers, tutors and parents on technical and vocational education. With regard to whether it is necessary to teach technical and vocational skills in secondary schools, 80% of policy makers agreed, 83% of heads and principals agreed and 70% of teachers and tutors also agreed. As far as technical and vocational education being a vehicle for industrial development and modernisation in Uganda, only 45% of policy makers agreed, 44% of head teachers and principals and 47% of teachers and tutors. With regard to whether Policy makers have a very poor attitude towards the teaching of technical and vocational skills, 72% of policy makers agreed, 71% of heads and principals and 81% of teachers and tutors.

The respondents also indicated the extent to which parents support the teaching of technical and vocational skills, 48% of policy makers agreed and 50% of heads and principals agreed and 49% of teachers and tutors also agreed. With regard to whether prior knowledge of technical and vocational skills at secondary school level influences the same at post secondary level, 65% of policy makers agreed, 67% of heads and principals agreed and 70% of teachers and tutors also agreed. As far as whether whites have influenced most people to believe that technical and vocational skills were meant for academic failure, 82% of policy makers agreed, 84% of heads and principals agreed and 81% of teachers and tutors also agreed.

Head teachers were asked to indicate their view of the attitude and support of parents and teachers to technical and vocational education. The views are shown in the table below.

Table 20: Head Teachers, Principals Views of Attitude of Parents and Teachers towards Technical and Vocational Education

Attitude	Parents		Teachers and Tutors	
	Frequency	%	Frequency	%
Very Supportive	9	50.0	13	72.2
Some what supportive	8	44.4	5	27.8
Not supportive at all	1	5.6	18	100.0
Total	18	100.0		

As indicated in Table 20 above, head teacher felt that the parents were supportive (94%) and teachers as well as tutors (100%). The heads revealed(100%9 that parents were supportive because they paid tuition which was used to purchase relevant materials and equipment.

4.7 The Impact of Resources in the Training Environment on the Teaching of Technical and Vocational Skills

The fourth objective of the study was to establish the impact of resources (facilities and equipment) in the training environment on the teaching of technical and vocational skills. The teachers and tutors were asked to indicate whether their Institutions provide appropriate facilities and materials for technical and vocational education the majority (87%) said yes, but the provisions were not adequate. So, teachers were forced to improvise through the methods below.

Table 21: How Teachers Improvise

Methods	Frequency	Percent
Share costs of buying with students	8	11.4
Borrow from workshops near by	5	7.1
No need	44	62.9
Use materials from local environment	11	15.7
Reduce frequency of practical work	2	2.9
Total	70	100.0

As indicated in the Table 21 above, the majority (62.9%) of teachers said there was no need to improvise, 11.4 % shared costs with students and 15% used material from the environment.

Table 22: Enough facilities to support the teaching of technical education

Category	Agree (%)	Disagree (%)
Policy makers	36	64
Head teachers, principals	43	57
Teachers and Tutors	58	42

As indicated in the Table 22 above, policy makers (64%) and 57% of heads and principals disagreed that schools and NTCs have enough facilities to support the teaching of technical education and this has affected the teaching of vocational and technical education. However 58% of teachers and tutors said they have enough facilities.

Other findings

The respondents were asked to suggest the technical and vocational subjects that should be taught. The responses are shown in table 23 below.

Table 23: Technical and Vocational Subjects to be Taught

Policy makers		Heads and Principals		Teachers and tutors	
Subject	%	Subject	%	Subject	%
Computer skills	10	Business studies	5.6	Business studies	11.4
Mechanical engineering	22.2	Agriculture	11.1	Agriculture	8.6
Entrepreneurship	22.2	Electrical and electronics engineering	16.7	Mechanical Engineering	11.4
Carpentry	11.1	Home Economics	27.8	Electrical and electronics engineering	11.4
Electricity and electronics	11.1	Building engineering	5.6	Home Economics	14.3
Home economics	11.1	Solar technology	16.7	Carpentry and	7.1

				Joinery	
		Rain water harvesting	11.1	Solar technology	7.1
		Film production	5.6	Film and multi-media production	4.3
				Metal work	7.1
				Information technology	8.6
				power and energy engineering	1.4
				Food and Nutrition	2.9
				Cloth and textile technology	4.3

For the case of policy makers the most important subjects to be taught were mechanical engineering (22.2%), entrepreneurship (22.2%), computer skills (11.1%) and home economics (11.1%). The heads and principals suggested that home economic (27.8%), electrical and electronics engineering (16.7%), solar technology (16.7%). Teachers and tutors suggested that home economics (14.3%), business studies (11.4%), mechanical engineering (11.1%).

Table 24: Respondents' Suggestions for Improving the Teaching of Technical and Vocational Skills in Secondary Schools

Policy makers		Heads and Principals		Teachers and tutors	
Subject	%	Subject	%	Subject	%
Increase support for technical	22.2	Increase funding for technical subjects	16.7	Increase funding for technical subjects	18.6
Government to put in place policies that promote technical and voc	11.1	Train More and better teachers	11.1	Train More and better teachers	10.0
Employ teachers with Cert. technical teacher education.	11.1	Promote positive attitudes towards technical education	11.1	Promote positive attitudes towards technical education	7.1

Segment secondary education into academic, comprehensive and vocational education	22.2	Make primary and secondary curriculum more practical	33.3	Make curriculum more practical	20.0
Provide Continuity of T.E to University	22.2	Equip workshops with modern tools	16.7	Equip tech and secondary schools with modern equipment	35.7
		Make two tech/voc subjects compulsory	11.1	Admit brilliant and interested students	7.1
				Introduce advanced courses in technical and vocational studies	1.4

4.8 Summary

This chapter has presented the findings of the study that explored the factors affecting the teaching of technical and vocational skills in secondary schools. The findings have revealed that, the government has put in place good policies to support technical and vocational education but are not fully implemented, only remained on paper. Some these policies are the vocationalisation of the entire education system and the restructuring of secondary education to create comprehensive and vocational secondary schools. The has also started community polytechnics. There is need to implement all these policies. In regard to the relevance of NTC and secondary school curricula, the findings revealed that both curricula do not support the teaching of technical and vocational skills. As far as the quality of teachers is concerned, the findings indicated that the ministry of education does not have enough teachers and those available are not well trained to teach technical and vocational skills.

The study has also shown that, the majority of the stakeholders have a negative attitude towards the teaching of technical and vocational skills. They have not fully supported the implementation of vocational education. Some still think that vocational skills are for the academically weak students. In the few schools where vocational education exists, teachers do not effectively teach these skills. This leads to students leaving secondary education without being equipped with employable vocational skills. Lastly, the findings have revealed that NTCs do not have adequate facilities, tools and equipment tools, findings revealed that to facilitate the teaching of practical skills. While, secondary schools seem to have enough tools and equipment, they are not being effectively used because some teachers do not have skills to use them. The respondents advised that technical subjects like, electrical and electronics, solar technology, business studies, film

production, food and nutrition and mechanical engineering should be strongly emphasized in secondary schools.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a discussion, conclusion and recommendations of a study that explored the impact of government policies on the teaching of technical and vocational skills in secondary schools. It discusses the relevance of present curricula for secondary education and National Teachers' Colleges to the teaching of technical and vocational skills. It measures the influence of the quality of teachers of technical and vocational education on the teaching of technical and vocational skills in secondary schools. It explores the influence of the attitude of the tutors, administrators, teachers on the teaching of technical and vocational skills in secondary schools and assesses the impact of facilities and equipment in the training environment on the teaching of technical and vocational skills. A discussion of the findings is presented first.

5.2 Discussion of Results

5.2.1 The impact government policies on the teaching of technical and vocational

Skills in secondary schools

The first objective of the study was to establish the impact of government policies on the teaching of technical and vocational skills in secondary schools. According to According to Gross et al(1971) success implementation of technical education is dependent on the level

government support. Government support is in terms of initiating curriculum change, policies on teacher training and availing resources. The findings revealed that few secondary schools (4%) teach technical and vocational skills. There is no special funding given by government to promote technical and vocational education. And no support in form of funding and materials is given by local governments. Since facilities, equipment and materials used in technical and vocational education are very expensive, schools can not afford to acquire them without government help (Kajubi, 1989). According to Kilemi (2001), the higher costs of technical and vocational education are due to the high cost of buildings and equipping of workshops and buy books. These are so important in having quality education. However, most schools and colleges can't afford them. This means that most secondary schools that teach technical and vocational skills do not have appropriate equipment. So some times they teach skills theoretically. Theoretical technical and vocational education can't be effective. Students do not master practical skills.

Though the government has put good polices like, UPPET, restructuring secondary education to create comprehensive and vocational secondary schools, vocationsalisation of the entire education system and BTVET has nice plans with regard to school drop outs. And also establishing and equipping polytechnics and implementing business and technical education curriculum in primary and secondary schools. These may not succeed without the government funding technical education in secondary schools. It implies that plans will continue to remain on paper and may never have any impact on technical and vocational education.

Despite the fact that, respondents agreed that the government has put clear policies to promote the teaching of technical and vocational skills in Secondary Schools, they revealed that the ministry of education is having difficulties in implementing technical and vocational education policies. So these policies are only having a minimal impact on the teaching of technical and vocational skills in secondary schools (Sifuna and Karugu, 1988). It only implemented policies that may improve technical and vocational education. However, putting policies into practice seems to be a weakness of the policy makers from the ministry of education who have not funded the vocational education institutions adequately.

5.2.2 Clarity of Curricula for Secondary Education and National

Teachers' Colleges to the Teaching of Technical and Vocational Skills

The second objective of the study was to establish the clarity of present curricula for secondary education and National Teachers' Colleges to the teaching of technical and vocational skills. According to Gross et al.(1971, Fullan and Stigelbauer (1991) technical education can be successfully implemented when there is relevant, appropriate and clear curricula at all levels of education. The findings reveal that all respondents agree that the secondary school curriculum is not responsive to the teaching of technical and vocational skills. And the present NTC curriculum does not fully meet the challenges of producing teachers who can adequately teach technical and vocational skills in secondary schools. This implies that there is need for a curriculum change both at teacher training level and secondary school level. Practical elements need to be included so that technical education is relevant to Uganda's needs. The reasons given were that the teaching of technical and vocational skills/subjects is so theoretical. The schools and teacher training colleges are not equipped with modern facilities and still use old technology.

5.2.3 The Influence of The Competency of Teachers of Technical and Vocational Education on the Teaching of Technical and Vocational Skills in Secondary Schools

The third objective of the study was to establish the influence of the competency of teachers of technical and vocational education on the teaching of technical and vocational skills in secondary schools. Literature has indicated that one of the major challenges facing technical education in Africa is lack of qualified trainers (Windham, 1992). The findings reveal that technical and vocational education teachers in secondary schools are still very few. On average, each of the sampled schools has 7 teachers, ranging from 2 to 14. Some schools have so few while others may be having just enough. Though the findings revealed that the majority had got training from a university and so may have degrees, the quality of teaching is still poor. This is most likely due to lack of facilities in schools and the theoretical nature of training that was acquired by the trainers.

Respondents admitted that the quality and quantity of technical and vocational education teachers in secondary schools is not very good and it has affected the quality of teaching. Head teachers who employ and supervise the teachers teaching technical and vocational skills/subjects revealed that they prefer to use NTC teachers because they were more practical and humble (Okello, 2005). This implies that the majority of technical and vocational education teachers who are university graduates may not be very practical. They may be mainly imparting theoretical knowledge which is easily forgotten by students (Whiter paper, 1992).

5.2.4 The Influence of the Attitude of stakeholders (the Tutors, Administrators, Teachers and Parents) on the Teaching of Technical and Vocational Skills in Secondary Schools

The fourth objective of the study was to establish the influence of the attitude of the tutors, administrators, teachers, and parents on the teaching of technical and vocational skills in secondary schools. According to Gross et al (1971) positive attitudes of stake holders towards technical education lead to successful implementation of the programme. Respondents indicated that technical and vocational skills are important in a persons' life. However they did not believe that Technical and vocational education is a vehicle for industrial development and modernisation in Uganda. With regard to whether Policy makers have a very poor attitude towards the teaching of technical and vocational skills all respondents agreed. Respondents also indicated that parents' support to the teaching of technical and vocational skills is still inadequate. Therefore, the findings show that the general attitude of different stake holders on technical and vocational education is still poor.

Respondents agreed that this attitude has been partly contributed by whites who influenced most people to believe that technical and vocational skills were meant for academic failures. This view was supported by teachers and tutors who said that their colleagues who teach academic courses tend to say that technical education is for weak students and sometimes discourage brilliant students from opting for them (Sifuna and Karugu, 1988). This implies that the issues of attitude are still a very big challenge to technical and vocational education. This finding agrees with Ssekamwa, (1997) who said that ruler-ship of the world was not vested in the hands of the technical people but in the hands of those who went through the literary (academic) education. Since many people may prefer to have ruler-ship or prestigious careers are not likely to opt for

technical education. That is why many students continue with academic subjects all through secondary and higher education, even to universities. They eventually end up being job- seekers rather than being job creators.

5.2.5 The Impact of Resources (Facilities, Tools and Equipment) in the Training Environment on the Teaching of Technical and Vocational Skills

The fifth objective of the study was to establish the impact of facilities and equipment in the training environment on the teaching of technical and vocational skills.

According to UNESCO / ILOs (2002) quality technical education is largely dependent on the availability of modern resources like workshops, tools and equipment. This is still a serious challenge in Uganda. Though teachers said that schools provide the facilities and materials they need in the teaching, the provisions were not adequate. So teachers are forced to improvise by sharing costs with students and collecting materials from the environment. And principals disagreed that schools and NTCs have enough facilities to support the teaching of technical education and this has affected the teaching of technical and vocational skills/subjects. In fact they indicated that the few they had were donations and were not even able to maintain them. According to Sifuna and Karugu (1988), technical education can not be successful without facilities, materials and equipment. Subjects like home economics, agriculture, woodwork, metal work are so practical that they can not be taught theoretically.

5.3 Conclusion

Technical and Vocational education in secondary schools is still facing real challenges. The policies that were put in place by government to promote it have remained on paper. Technical education is still in none priority position. Schools and tertiary institutions lack trained teachers, facilities, workshops and funds for purchasing materials. The few functioning secondary schools in technical and vocational skills are not well staffed. Many useful technical and vocational subjects like film production, videography, hair styling, interior and exterior design are still left out. Some parents and teachers still feel that technical and vocational education is for the less intelligent students. These challenges have negatively affected the teaching of technical and vocational skills/subjects in secondary schools.

5.4 Recommendations

In view of the findings, the researcher recommends as follows;

1. Policies

Technical and vocational education policies are very good, but have remained on paper. The ministry of education should institute a special task force to explore why these policies are not being implemented. There is need to study why technical and vocational education is placed in none priority position by both schools and the government. It may also be necessary to limit the teaching of some vocational courses to a few well-equipped schools.

2. Teachers

Ministry of Education and Sports lacks trained teachers. This is most likely due to lack of funds to support this training. The researcher therefore recommends that there is need for the Ministry of Education to secure funds to equip NTCs with modern facilities and train more technical and vocational education teachers. A special policy to attract more teachers into technical and

vocational education is important. This policy may involve a special allowance for teacher trainees in higher institutions of learning, and a salary bonus for teachers of technical and vocational skill/subjects. Upgrading of teachers' skills on a regular basis, preferably every end of term holiday is important. Reference books and students' text books should also be purchased and stocked in libraries. In-service training of teachers and regular advice by school inspectors should contribute to enhancing their ability to introduce new knowledge and to improvise in the absence of adequate learning/teaching facilities.

Since it is expensive to train a technical teacher and to retain him/her, the researcher recommends that, a fully equipped NTC with facilities, tools, workshops, and equipment should be established to only train teachers for technical and vocational skills/subjects. This institution should have all categories of technical and vocational skills training.

3. Facilities and Equipment and Materials

Since NTCs and secondary schools are not well equipped, the researcher recommends that, government should apportion a significant part of the national budget to support technical and vocation education. This money will be used to purchase relevant tools and equipment. In addition the government can secure donor funds, initiate fundraising drives, and encourage parents, and NGOs to donate both funds and equipment to meet the requirements and standards for technical and vocational education. Teachers can also be given special training for making and improving simple technical and vocational education tools and equipment using locally available materials, especially scrap. At the school level, the opportunities for cost saving through a

more cost-efficient use of available time, physical and human resources within and across schools should be explored.

4. Attitude towards Technical and Vocational Education

The attitude of the general Ugandan population towards technical and vocation education is still negative. As a way of improving the attitude the researcher recommends that, government can start sponsoring students who choose to take technical and vocational subjects at secondary schools and tertiary institutions. The remuneration for technical and vocational teachers can be increased to surpass the average teacher salary by a half, so as to make it rewarding to teach those skills/subjects. The government can start admitting brilliant students to the programs.

5.5 Recommendations for Further research

1. The researcher recommends that further research be carried out on the challenges the Uganda government is facing in implementing the very good policies it has drafted on the teaching of technical and vocational education in Uganda.
2. There is need to survey the quality of technical and vocational education facilities and equipment in secondary schools and teacher training institutions so as to establish what is available, what is missing and how the institutions are coping with this inadequacy.

3. There is also need to revisit the present curricula for NTCs and secondary schools and find out what should be included in order to make them relevant to the teaching of technical and vocational skills.

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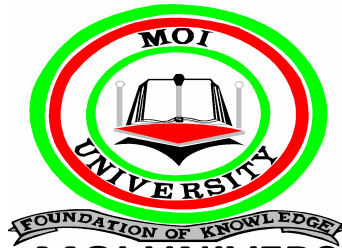
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MOI UNIVERSITY
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DEPARTMENT OF TECHNOLOGY EDUCATION
(KENYA)

***RESEARCH QUESTIONNAIRE FOR ADMINISTRATORS AND LECTURERS IN
UNIVERSITIES TRAINING TEACHERS FOR TECHNICAL /VOCATIONAL
SKILLS/SUBJECTS.***

Dear Respondent,

I am Mukasa John Ddungu-Kafuluma a student of Moi University Kenya in the School of Education, department of Technology Education. I am conducting a study entitled **“Factors Affecting the Teaching of Technical and Vocational Skills/Subjects in Secondary Schools in Uganda.” A case study, Secondary Schools in Wakiso District.**

The purpose of this letter/note is to request you to participate in this research by answering the questions in this questionnaire for the good of our country.

This research is purely academic, and the responses will be used for that purpose. Therefore, I assure you that all the information collected for this study shall be treated with confidentiality. **Please feel free not to indicate your name on this questionnaire.**

Thank you in advance.

INSTRUCTIONS

- You are requested to respond positively to the questions you are able to answer. And your answer will mean a lot to this research study.
- There are two sections A and B.
- Where you feel that the space provided for the answer is not enough, you may write the answer on a separate paper.

SECTION A

Biographical Data of Respondent.

1. Sex.....
2. Occupation.....
3. Title.....
4. Institution.....
5. Number of years in your occupation.....
6. Your Technical / Vocational specialization (If applicable)

SECTION B

The responses are ranked as follows:

1. **Strongly Agree.**
2. **Agree.**
3. **Uncertain.**
4. **Disagree.**
5. **Strongly Disagree.**

Please TICK (✓) the most appropriate response to each question. Put the tick in the box that corresponds to the responses given above. Where need be, justify/elaborate your response.

1	2	3	4	5
✓				

Example;

Technical and Vocational Skills/Subjects are useless to primary school pupils.

Justification:

Because children are still young to be subjected to manual work.

1	2	3	4	5

1. It is necessary to teach Technical and Vocational Skills in secondary schools.

1	2	3	4	5
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2. Since Independence governments have put **clear policies** in place that promote the teaching of Technical and Vocational Skills /Subjects in Secondary Schools.

1	2	3	4	5

3. These policies have made an influence/ impact in the teaching of Technical and Vocational Skills/ Subjects in Government Secondary Schools in Uganda.

1	2	3	4	5

4. The Ministry of Education and Sports have difficulties in implementing these policies.

1	2	3	4	5

5. The Ministry of Education and Sports has enough teachers to teach Technical and Vocational Skills in government Secondary Schools.

1	2	3	4	5

6. The present Secondary School curriculum is responsive to the teaching of Technical and Vocational Skills in Secondary Schools.

1	2	3	4	5

7. The National Teachers Colleges curriculum meets the challenges of producing teachers who can adequately teach Technical and Vocational Skills in Secondary Schools.

1	2	3	4	5

8. The secondary schools are equipped with the necessary facilities to teach Technical and Vocational Skills.

1	2	3	4	5

9. The policy makers have very low attitude towards the teaching of Technical and Vocational Skills.

1	2	3	4	5

10. Technical and Vocational Education is the Vehicle for Industrial growth and Modernisation.

1	2	3	4	5

11. Before and After Independence, the Whites made people to believe that Technical and Vocational Education was meant for the failures. Many people consider Technical and Vocational Education to be for failures.

1	2	3	4	5

12. Prior knowledge of Technical and Vocational skills at secondary school level influences the choice of the same at post-secondary institutions.

FACTUAL QUESTIONS:

13. In which year did this University start to train **teachers** for Technical and Vocational Skills/Subjects?.....

14. Which Technical and Vocational Skills / Subjects do you offer in your department in this University?.....
.....
.....
.....

15. Where do your products work / teach after training?.....
.....
.....

16. Which Technical and Vocational Skills / Subjects would you like to be taught in secondary schools in Uganda?

.....

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.....

17. Does the Government give you special/extra funding for training **teachers** for Technical and Vocational Skills/Subjects?

(a). If "Yes", how much per year?.....

18. Does the University Authorities give you special/extra funding for training **teachers** for Technical and Vocational Skills/Subjects?
.....

(a). If " Yes", how much per year?.....

19. Where there is NO any special/extra funding from the Government and even from the University authorities, how do you manage to train **teachers** for Technical and Vocational Skills/Subjects?.....
.....
.....

20. What has been the performance of your student teachers for
Technical/Vocational Skills/Subjects since 1998?

YEAR	1 st CLASS	2 ND CLASS UPPER	2 ND CLASS LOWER	PASS	FAILURES
1998					
1999					
2000					
2001					
2002					
2003					
2004					
2005					
2006					
2007					

21. Which are the some of the clear policies that aim at the promoting the **teaching** of Technical and Vocational Skills/Subjects in secondary schools put in place by the Governments since Independence?

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22. What do you think can be done to improve on the **Training** of **teachers** for Technical/Vocational Skills/Subjects in Uganda?

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Thank you for participating in this study.
MAY GOD BLEES YOU

SECTION B

Please TICK () the most appropriate answer and justify your answer/ response here required. Where you are required to write the response, please do write.

1. What is the name of your school?

.....
.....

2. When was this school started?

.....

3. When did you join this school as a Head-teacher?

.....

4. When were the Technical and Vocational Skills/Subjects started in this school?

.....

5. It started with which Technical and Vocational Skills/Subjects?

.....
.....
.....
.....
.....

6. Since then has the number of Technical and Vocational Skills/Subjects increased or reduced?

.....

7. What/Which are the Technical and Vocational Skills/Subjects do you offer at the moment?

.....
.....

.....
.....
.....
.....

8(a). In your opinion, is it of any use to teach Technical and Vocational Skills/Subjects to secondary school students?

Yes No I don't know

(b). Please support your response by elaboration.

.....
.....
.....
.....
.....

9. Which Technical and Vocational Skills/Subjects would you like/need to be offered/taught in secondary schools in Uganda?

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.....
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.....
.....
.....

10(a). Has the Government put in place clear policies to promote the teaching of Technical and Vocational Skills/Subjects in secondary schools in Uganda since the Independence?

Yes No I don't know

(b). If "Yes," which are these policies? List them.

.....
.....
.....
.....
.....
.....
.....

11a). Has the Ministry of Education and Sports been able to implement some of these policies?

Yes No I don't know

(b). If “Yes,” which are the policies so far been implemented?

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.....

12. Which are the Technical and Vocational Skills/Subjects taught in the Government secondary schools in Uganda?

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.....
.....
.....
.....
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.....
.....

13. Are these Skills /Subjects examinable by UNEB?

Yes No I don/t know

14(a). Which Technical/Vocational Subject is usually well done?

.....
.....

(b). The one which is usually poorly done?

.....
.....

1. In your opinion, why has the Ministry failed to implement the policies that aim at promoting Technical and Vocational Skills/Subjects in Government secondary schools?

.....
.....
.....
.....

16(a). Does the present secondary school curriculum relevant to the teaching of Technical and Vocational Skills/Subjects?

Yes No I don't know

(b). Please support your response by elaboration.

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.....
.....
.....

16(a). Which Technical and Vocational Skills/Subjects do you offer at O' level?

.....
.....
.....
.....
.....
.....

(b). Which Technical and Vocational Skills/Subjects do you offer at A' level?

.....
.....
.....
.....

17(a). Did you do any Technical or Vocational Skill/Subject at O' level and A' Level yourself?

Yes

No

I don't know

(b). If "Yes," which ones at O' level?

.....
.....
.....
.....
.....

(c). Which ones at A'level?

.....
.....
.....
.....
.....
.....

18(a). Do you participate in teaching?

Yes

No

(b). If "Yes," which Technical and Vocational Skills/Subjects do you teach?

.....
.....
.....
.....

19. In your opinion, does the teaching of Technical and Vocational Skills/Subjects require highly skilled teachers?

Yes

No

I don't know

20. How many teachers for Technical and Vocational Skills/Subjects do you have in this school? Name them and their specialization.

NOTE: Do not write their real names. Choose any funny names or you can use letters e.g A , B , C ,D etc.

.....
.....
.....
.....
.....
.....

21. What is the highest Technical/Vocational qualification of each teacher.

NOTE: Use the names or letters that you have used in question 20.

e.g A.....Diploma in Technological

B.....B.ed in Technological

C.....Masters in Food Technology

.....
.....
.....
.....
.....
.....

22. How do you rate the teachers who qualify from National Teachers Colleges?

Are they competent enough to teach Technical and Vocational Skills/Subjects?

.....
.....
.....

23. How do you compare teachers from Universities and National Teachers Colleges as far as teaching Technical and Vocational Skills/Subjects is concerned?

.....
.....
.....
.....
.....

24. In your opinion what is the attitude of the Ministry of Education and Sports towards the teaching of Technical and Vocational Skills/Subjects in secondary schools?

.....
.....
.....

25. What is the attitude of all the teachers in your school towards the teaching of Technical and Vocational Skills/Subjects?

.....
.....

26. What is the attitude of between other teachers towards teachers for Technical and Vocational Skills/Subjects

.....
.....
.....

27. What is the attitude of the students toward the Technical and Vocational Skills/Subjects in this school?

.....
.....

28. What is the behavior between students who do Technical Subjects and other students?

.....
.....
.....

29. Do the parents want their children to learn Technical and Vocational Skills/Subjects

Yes No I don't know

30. How have the parents come in to support the school in the teaching of Technical and Vocational Skills/ Subjects?

.....
.....
.....

.....
.....
31(a). Do you have workshops for the Technical and Vocational Skills/Subjects you offer in this school?

Yes No

(b). If "No," how do the teachers manage to teach the Technical and Vocational Skills/Subjects adequately?
.....
.....
.....

32(a). Do you have enough tools and equipment for the Technical and Vocational Skills/Subjects you offer in this school?

Yes No I don't know

(b). If "No," how the teachers manage to adequately teach the Technical and Vocational Skills/Subjects?
.....
.....
.....

33. Can you list the tools and equipment available in the school for teaching the Technical and Vocational Skills/Subjects you offer.
.....
.....

NOTE: For this question, preferably you can use a separate for each Technical subject.

34. Can you list the tools and equipment you would need in your school to enable your teachers to adequately teach Technical and Vocational Skills/Subjects?

NOTE: For this question also you can use separate paper to answer it exhaustively.
.....
.....

35. Would you need to add more Technical and Vocational Skills/Subjects to the ones you offer currently?

Yes No

If "Yes," List them.
.....
.....
.....

36(a). Are there some private workshops in the vicinity of the school?

Yes

No

I don't know

(b). If "Yes," have you ever tried to explore for working relationships with such workshops?

Yes

No

37. Hope it is the Government which funds your school to enable you run the Technical and Vocational Skills/Subjects?

Yes

No

If "Yes," how much do you receive each year?

38. Is the funding from Government adequate to enable you run the Technical and Vocational Skills/Subjects you offer?

Yes

No

I don't know

If "No," how much would you need each year?

39. Apart from the Government funding, what other sources of funding do you have to enable you run the Technical and Vocational Skills/Subject you offer?

40. In your opinion, why are Technical and Vocational Skills/Subjects a not taught in all Government secondary schools in Uganda?

41. In your opinion, has the Ministry of Education and Sports done enough to promote the teaching of Technical and Vocational Skills/Subjects in the Government secondary schools in Uganda?

Yes

No

I don't knows

Please support your response by elaboration.

42. What would be your advice to the Government if the teaching of Technical

Skills/Subjects are to be adequately taught in Government secondary schools?

.....

.....

.....

.....

43. Before and after Independence, the Whites made people to believe/think that ,Technical and Vocational Education was meant for the failures. Students/Pupils who are not academically upright. Do you think that the society in Uganda today still consider Technical and Vocational Skills to be for failures?

Yes No I don't know

Please, you can support your response by elaboration.

.....

.....

.....

.....

44. What has been the performance of your students in UNEB examinations in Technical/Vocational subjects since 1990?

YEAR	DISTICTIONS	CREDITS	PASSES	FAILURES
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				

2005				
2006				

2007

45. What is your comment on these results?

.....

.....

.....

.....

Thank you for participating in the study.
MAY GOD BLEES YOU