UGANDA MANAGEMENT INSTITUTE

ORGANISATIONAL FACTORS AFFECTING STUDENTS' RESEARCH OUTPUT AT A SELECTED TERTIARY INSTITUTION IN KABALE MUNICIPALITY

BY

JEHOIADA AMOOTI SERUGO

11/MIML/1/005

A RESEARCH DISSERTATION SUBMITTED TO THE SCHOOL OF MANAGEMENT SCIENCE IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER'S DEGREE IN INSTITUTIONAL MANAGEMENT AND LEADERSHIP OF UGANDA MANAGEMENT INSTITUTE

OCTOBER 2015

DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my original piece of work and has not previously in its entirety or part been submitted to any university for any degree

……. **……..**

JEHOIADA AMOOTI SERUGO **DATE**

APPROVAL

This dissertation has been submitted with our approval as supervisors:

SUPERVISORS:

…… **……**

DR. MARIA K. BARIFAIJO **DATE**

…… **……**

DR. GERALD KAGAMBIRWE KARYEIJA **DATE**

DEDICATION

With great pleasure and thanksgiving to God I hereby dedicate this great piece of academic work to my dear wife TREASURE and ALL our dear children and grand children whose prayers, advice and material support encouraged me to accomplish it.

May the Good Lord who gives without measure bless you abundantly.

ACKNOWLEDGEMENT

I wish to express my sincere thanks to various people who assisted me when conducting this study to completion.

First and foremost I am very grateful to my supervisors Dr. Maria K. Barifaijo and Dr. Gerald K. Karyeija who provided guidance in conducting the study.

Secondly I am very grateful to the Managing Director and Proprietor of the selected tertiary institution in Kabale municipality for the information provided on conceptual issues influencing the growth and success of the institution.

Thirdly I would like to thank all the informants particularly the Academic Registrar, Human Resource Manager, Librarian, lecturers and students for the information they provided regarding this study.

Last but not least I am very grateful to Ms Teddy Mbabazi for the secretarial assistance.

TABLE OF CONTENTS

DECLARATION ii
DEDICATION iv
ACKNOWLEDGEMENT v
ABSTRACT xi
CHAPTER ONE 1
INTRODUCTION 1
1.1 Introduction 1
1.2 Background to the study 1
1.2.1 Historical background 1
1.2.2 Theoretical background 3
1.2.3 Conceptual background 3
1.2.4 Contextual background 5
1.3 Statement of the problem 6
1.5 Objectives of the study 7
1.6 Research questions 7
1.7 Hypotheses of the study 8
1.8 Conceptual Framework 8
1.9 Significance of the study 10
1.10 Justification of the study 11
1.11 Scope of the study (Geographical, content and time scope) 11
1.11.1Geographical scope 11
1.11.2 Content scope 12
1.11.3 Time scope 12
1.12 Operational Definitions 12
CHAPTER TWO 13
LITERATURE REVIEW 13
2.1 Introduction 13
2.2 Theoretical Review 13
2.3 Literature review 13

2.3.1 Effective teaching and research output in higher education 14
2.3.2 Effective supervision and students' research output in higher education 18
2.3.3 Quality control and students' research output in higher education 20
2.3.4 Summary 22
CHAPTER THREE 24
METHODOLOGY 24
3.1 Introduction 24
3.2 Research Design 24
3.3 Study Population 25
3.4 Determination of the Sample size 25
3.5 Sampling techniques and procedure 26
3.6 Data Collection Methods 27
3.6.1 Questionnaire survey 27
3.6.2 Interviewing 27
3.6.3 Documentary review 28
3.7 Data collection instruments 28
3.7.1 Questionnaires 28
3.7.2 Interview-guides 28
3.7.3 Documentary checklist 29
3.8 Validity and reliability 29
3.8.1 Validity 29
3.8.2 Reliability 30
3.9 Procedure of data collection 31
3.10 Data analysis 31
3.10.1 Analysis of quantitative data 31
3.10.2 Regression analysis 32
3.10.3 Analysis of qualitative data 32
3.11 Measurements of variables 32
CHAPTER FOUR 33
PRESENTATION, ANALYSIS AND INTEPRETATION OF FINDINGS 33
4.1 Introduction 33

4.2 Response Rate 33
4.3 Demographical data 34
4.3.1 Gender 34
4.3.1 Age of the respondents 34
4.3.2 Education level 35
4.3.3 Hierarchy in the organisation 36
4.4 Empirical findings on organisational factors affecting students' research output at the selected tertiary institution in Kabale municipality 37
4.4.1 To establish the effect of teaching on students' research output at the selected tertiary institution in Kabale municipality 37
4.4.2 To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality 40
4.4.3 To investigate the effect of quality control on students' research output at the at the selected tertiary institution in Kabale municipality 42
4.5 Hypothesis testing 43
CHAPTER FIVE 49
SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS 49
5.1 Introduction 49
5.2 Objective one: To establish the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality 49
5.3 Objective Two: To find out the effect of supervision on students' research output at the at the selected tertiary institution in Kabale municipality 49
5.4 Objective Three: To investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality 50
5.5 Discussion of the findings 50
5.5.1 Objective one: To establish the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality 50
5.5.2 Objective Two: To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality 54
5.5.3 Objective Three: To investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality 57
5.6 Conclusions 59
5.6.1 To establish the effect of teaching on students' research output at the selected tertiary institution in Kabale municipality 59

5.6.2 To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality 59
5.6.3 To investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality 60
5.7 Recommendations 60
5.7.1 To establish the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality 60
5.7.2 To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality 60
5.7.3 To investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality 61
5.8 Limitations of the study 61
5.9 Contributions of the study 61
5.10 Further Research should be done on 63
REFERENCES 64
APPENDIX A: RESEARCH INSTRUMENTS 69
APPENDIX B: TABLES 80
APPENDIX C: FIGURES 100

LIST OF FIGURES

Fig. 1: A cause-effect conceptual framework…….. 9

ABSTRACT

This study was about organisational factors affecting students' research output at the selected tertiary institution in Kabale municipality. The objectives were to establish the effect of teaching on students' research output; to find out the effect of supervision on students' research output; and to investigate the effect of the quality control on students' research projects at the selected tertiary institution in Kabale municipality. A cross-sectional design was used. Data was collected using questionnaires, interview-guides from a population sample of 72 respondents. Quantitative data was analyzed statistically using the Pierson Product Moment Correlation Coefficient formula and Spearman Rank Order Correlation Coefficient with the help of SPSS, while qualitative data was analysed using content analysis strategy. It was found out that each of the three variables had a positive moderate effect on students' research output given by Spearman's correlation coefficient, whereby teaching was 0.625; supervision was 0.496, and quality control mechanisms was 0.509. It was concluded that teaching significantly affects the students' research performance at the institution; supervision significantly affects students' research outputs at the institution; quality control mechanisms significantly affect students' research outputs at the institution.

Regarding the first objective, it was recommended that the college should integrate part-time teaching into the recommended rage of 20% - 50% by the NCHE; train lecturers in professional skills as instructors; shift from pure pedagogy which is teacher-centred to interactive andragogy which is learner-centred; encourage lecturers and students to apply the available ICT facilities while teaching research methods.

For the second objective, it was also recommended that the institution should establish a more conducive academic culture through more effective leadership in which the principal serves as a change agent; train supervisors in various supervision styles; gradually shift from supervisor-centred to student-centred supervision styles; monitor regularly the way students are supervised in research.

Finally for the third objective, it was recommended that the institution should establish a comprehensive quality assurance policy framework pointing out both internal and external quality control mechanisms for research as similar institutions in the country have done.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

In the current situation where scholarship in higher educational institutions is generally infected by widespread plagiarism, inadequate instruction, hasty supervision and lack of quality assurance, it is feared that scholarly academic research in particular may disappear (Mamdani 2013). It was in response to this scenario that this study was conducted focusing on the 'organisational factors affecting students' research output at a selected tertiary institution in Kabale district where a similar problem was identified. The independent variable was 'organisational factors', while dependent was 'students' research output.' 'Organisational factors' were measured in form of 'teaching, supervision, and quality control', while "students' research output" were measured in form of writing, typesetting, and marking research proposals and reports. This chapter is the introduction to the study, describing the background to the study and stating the problem, purpose, objectives, research questions, hypotheses, significance, justification, scope of the study, and operational definitions.

1.2 Background to the study

1.2.1 Historical background

Research is a systematic attempt to obtain answers to meaningful questions about phenomena or events through the application of scientific procedures (Koul 1997). It began informally in time immemorial when man began searching the environment for food, shelter and clothing for survival. 'Basic research' extends knowledge in an academic area, while 'applied research' helps in solving identified problems in the community such as developing

a new vaccine for a new disease affecting society (Sharma 2000). Formal research was initiated in the 11th century by mediaeval universities which also evolved from the former Catholic Church schools known as 'Studia Generali' continuing the interest in learning promoted by monasteries. They were study guilds comprising teachers (Latin: '*magistrorum'*) disseminating knowledge, and learners (Latin: '*scholarium*') who dedicated themselves to the search for knowledge for its sake to develop their minds. Hence the name 'university' evolved from the Latin expression 'universitas magistrorum et scholarium' referring to the "community of teachers and scholars" as the whole body engaged in higher branches of learning at a particular place, purposely to train professionals, conduct scientific investigation, improve society, and teach critical thinking and research (Encyclopedia Britannica 2006).

While in the 18th and 19th centuries universities concentrated on basic research and publication basing on the German Humboldtian tradition which aimed at forwarding research and training researchers (Alum 1995), from the 20th century they refocused on applied research as well after realizing that certain questions in society remained unanswered. It enabled them discover new knowledge and skills for the benefit of society. Some universities such as Harvard, Stanford, Berkeley, and Michigan now concentrate on research only (Alum 1995). Since then universities and colleges have become depositories of knowledge from research for community service (Bongyeirwe 2002).

Basic research in particular is very essential for the academic life, function and administration of higher educational institutions. It enables students to develop critical reasoning skills, understand classroom studies, participate in higher degree programmes, and continue long into one's professional career. It enables professionals to keep abreast with the latest developments in their fields of specialization, nurture and equip the scholarly

community to rethink intellectually and institutionally its function in the local and global society. It guides institutional management in decision-making by providing correct information (Alum 1995; Mamdani 2011). In Uganda, all higher educational institutions are required to engage in the three principal functions of teaching, research and community service. Research remains central because it fosters the scholarly, scientific, philosophical and critical approaches of intellectuals to the solution of practical problems of man as well as their creative contributions to the Arts and Sciences (Government White Paper 1992).

1.2.2 Theoretical background

This study was based on the systems theory which states that every organization is a social system, consisting a structure, people, task, technology and environment. These are interrelated and interdependent subsystems forming a unitary whole such that the functioning of one affects in varying degrees another and eventually the whole system (Gupta 1998). There are two types of social systems: an open one and a closed one. The functioning of an open system is influenced by environmental factors (Figures 2 and 3). This was the most appropriate theory because it depicted the selected tertiary institution in Kabale as a social system whose students' research programme is a process with inputs of students, lecturers and academic infrastructure; the conversion process entails planning, organising and reporting', leading to outputs of finished research reports, and graduates.

1.2.3 Conceptual background

Research is a systematic process of obtaining answers to meaningful questions about phenomena or events through the application of scientific procedures (Koul 1997). The major concepts in this definition are 'research, systematic process, scientific procedures'.

The term ‘research’ originated from the Old French term "*recerchier*" as a compound word from "re" and "cerchier" or "sercher" meaning to 'search'. It evolved through Middle French as "recherche", meaning "to go about seeking", and now in English it is a compound of ‘re’ and ‘search’ where ‘re’ means ‘again and again’ or ‘over and over’, while ‘search’ means ‘to look for’. Together they form the term ‘research’ literary meaning ‘to look for something again and again, or over and over (Sharma 2000).’

‘Systematic process’ means doing something step by step such as selecting a topic; focusing research questions; designing the study; collecting, analysing and interpreting the data and writing a report such that the process can even be replicated (Neuman 2007). ‘Scientific process’ means a systematic, controlled, empirical and critical mode of inquiry leading to the development of theory and testing of substantive hypotheses deduced from theory (Amin 2005). Therefore research is the process of searching for a solution to identified problem through a series of steps involving control, empirical evidence and critical analysis of the findings.

In this study particularly, the major concepts were ‘research teaching, research supervision, quality control and research output’. Research teaching is an interactive process between the teacher and the learner through which the teacher enables the learner to acquire the basic knowledge and skills commonly known as research methods, of conducting research. Research supervision is the next interactive process through which the teacher oversees the way the student conducts the study. Quality control is the process of ensuring that the research work produced by the students conforms to the predetermined specifications or criteria by the institution (Harvey 2004). Then research output is the scholarly work produced by the students through a rigous process rigorous in which the design which is

internally and externally valid, is based on reliable data sources, and uses appropriate analytical methods which are meaningful in practical and statistical terms (Mahmood 2011).

1.2.4 Contextual background

Ideally, the purpose of conducting basic research in higher educational institutions is to enable students develop critical reasoning skills, understand classroom studies, participate in higher degree programmes, and continue long into one's professional career. It leads to the development of new knowledge to solve problems encountered in specific academic areas thereby partially fulfilling the requirements for their academic awards (n.a).

This requires effective teaching of research methods through modern methods that focus on student-centred learning (Zeiger 2013), supervise their work through the modern approach that enhances supervisor-support and student-autonomy (MacKoegh 2013); guide them in writing scholarly research proposals and reports, and mark the work analytically basing on institutional quality control guidelines such as the marking guide (Makerere University 2007).

Much as the selected tertiary institution in Kabale appears well staffed to teach research methods and supervise students' research projects, and has some quality control mechanisms like the syllabus and marking guide (Prospectus 2013), students' research output basing on the Research Moderation Report 2010 – 2011, and Research Supervision Report 2011 – 2012 work is still unscholarly affecting more than 90% of the candidates. They show a great deal plagiarism, technical errors, and unprofessional assessment indicating lack of proper teaching, supervision and reporting. Isn't it a contravention of the expected standards for a rigorous research design which is internally and externally valid, reliable data sources, and use of appropriate analytical methods which are meaningful in practical and statistical terms

(Mahmood 2011)? Above all, does it promote the desired critical reasoning skills and extension of new knowledge expected through basic research (n.a, n.d)?

On the contrary, it implies that there are some organisational factors within the institutional set up responsible for these anomalies which are not yet known, making some students pass even when they may have failed, and vice versa. If this scenario is left unaddressed, the whole essence of research education through this institution will be lost eventually. Plagiarism alone which is unethical, will seriously undermine the value of students' research output, their academic qualifications, the work of the colleagues and standards of the institution, and create far-reaching consequences in future to the institution (Oxford University (n.a, n.d). As there was no systematic study showing the organisational factors responsible for this scenario, this study was therefore intended to investigate them. It focused on ways teaching, supervision, learning and other quality control mechanisms in this institution affect students' ability to plan, organise and report research projects scholarly. It was conducted at a selected tertiary institution in Kabale Municipality where the problem was identified, hereby kept anonymous.

1.3 Statement of the problem

Whereas the institution had five qualified staff to teach research methods and supervise students' research projects, and basic quality control mechanisms like the syllabus and marking-guide (Prospectus 2013), students' research output was not a scholarly enough because of plagiarism, technical errors, and unprofessional assessment. These indicated that there was a problem of inadequate research teaching, supervision and quality control (Moderation Report 2010 – 2011, and Supervision Report 2011 – 2012). Plagiarism alone is a serious issue that undermines the value of students' research output, their academic

qualifications and creates far-reaching consequences (Oxford University (n.a, n.d) if it is not addressed now.

As there was no systematic study showing the organisational factors responsible for this scenario, this study was conducted to investigate ways teaching, supervision, and quality control in this institution affect students' ability to plan, organise and report research projects scholarly. It was conducted at the selected institution in Kabale Municipality where the problem was identified.

1.4 Purpose of the study

To find out organisational factors in terms teaching research methods, supervision and quality control mechanisms affecting the quality of students' research output at the selected tertiary institution in Kabale municipality.

1.5 Objectives of the study

1. To establish the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality.
2. To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality.
3. To investigate the effect of the quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality.

1.6 Research questions

1. What is the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality?
2. What is the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality?

3. What is the effect of the quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality?

1.7 Hypotheses of the study

1. Teaching research methods has a significant effect on students' research output at the selected tertiary institution in Kabale municipality.
2. Supervision has a significant effect on students' research output at the selected tertiary institution in Kabale municipality.
3. Quality control mechanisms have a significant effect on students' research output at the selected tertiary institution in Kabale municipality.

1.8 Conceptual Framework

There are many conceptual frameworks applied in research such as the cause-effect, stages in a process, and hierarchical relationships, (Fisher 2007). This study was based on the cause-effect conceptual framework because it would depict ways organisational factors as independent variables affect students' research output, as illustrated in Fig. 1 below:

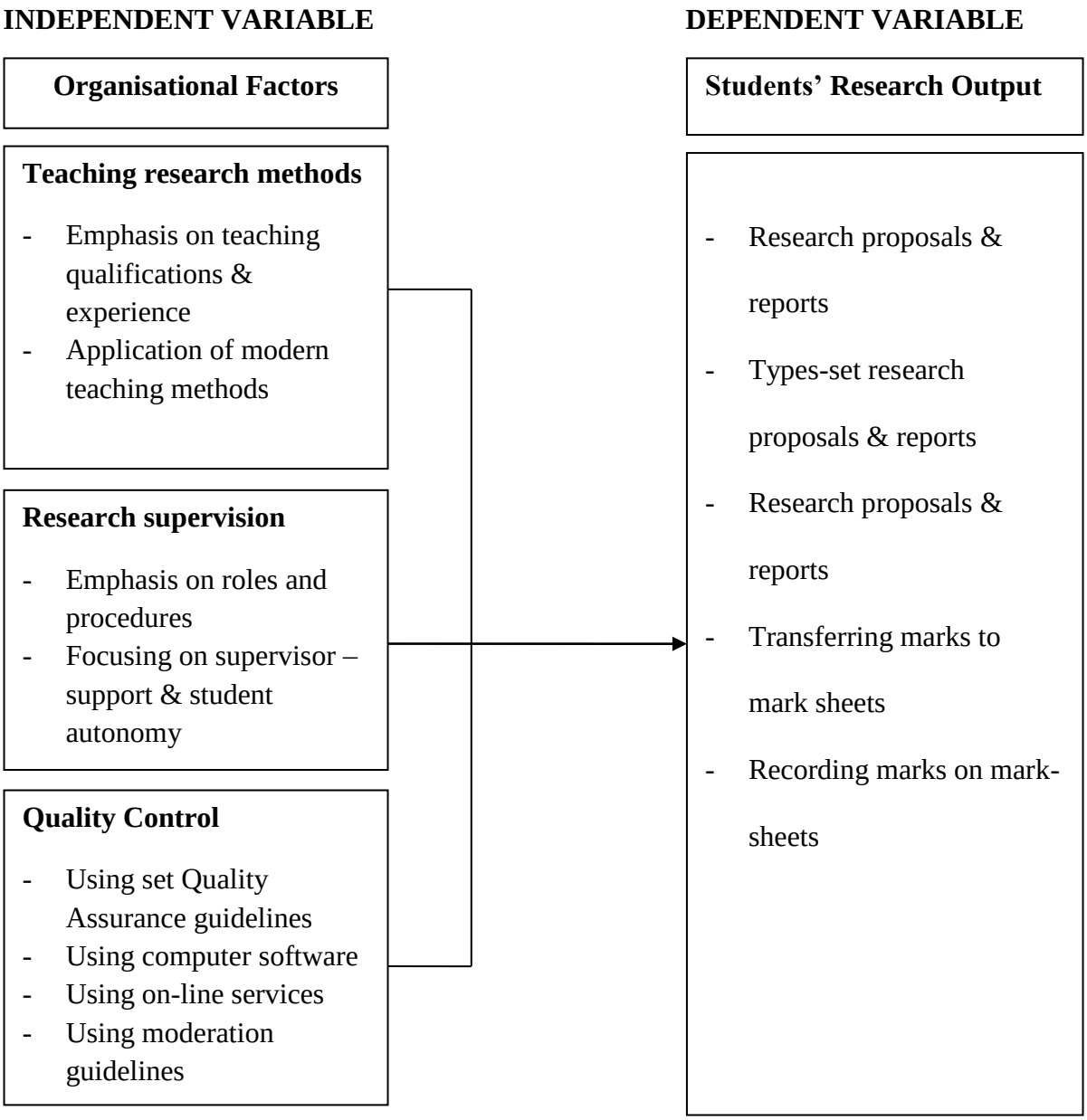

Fig. 1: A cause-effect conceptual framework

Source: Adapted from Fisher Colin (2007) 2nd Edition, p.127

This conceptual framework illustrates the effect of organisational factors on students' research output in institutions of higher learning. This is through teaching, supervision, and use of various quality controls, as follows:

Teaching: effective teaching based on lecturers' professional qualifications, experience and competence in applying modern teaching methods has a significant effect on students' academic output. The interaction of these two variables will enable the achievement of the first objective of the study.

Supervision: effective supervision by applying modern supervision approaches has a significant effect on students' academic output. The interaction of these two variables will also help in achieving the second objective of this study.

Quality control: the effective application of traditional roles, procedures, and guidelines, but also of modern computer software, and online services have a significant effect on students' academic achievement. The interaction of these two variables will help in achieving the third objective of this study.

1.9 Significance of the study

The results of this study will enable the management of the selected tertiary institution in Kabale municipality first and foremost, and sister tertiary institutions to realise ways in which teaching, supervision and quality control affect students' research output in the institution, while the recommendations will reveal ways of improving the same inputs in these colleges.

Secondly, the same results will enable educational administrators in-charge of the academic awards in the Uganda Examinations Board, Makerere University Business School, and the Management of the National Council for Higher Education in-charge of quality assurance to realise what is causing the decline in academic standards in tertiary institutions generally, and at the selected tertiary institution in Kabale municipality in particular and formulate

better basing on the study recommendations regarding the conduct of academic research in these institutions.

Finally this study will produce new knowledge on improving scholarly academic research in higher educational institutions which will be of interest to future researchers in this academic field.

1.10 Justification of the study

It has been observed above that students' research output at the selected tertiary institution in Kabale municipality is of low scholarly standards enabling students to pass when they may have failed to accomplish the research projects by themselves. If this scenario is left unaddressed, the essence of basic research at the college and similar institutions in the country will be lost eventually. Therefore this study was conducted to discover new knowledge about the organisational factors affecting the quality of students' research output at this institution and recommend ways of improving this academic undertaking.

1.11 Scope of the study (Geographical, content and time scope)

1.11.1Geographical scope

This study was conducted at the main campus of the selected tertiary institution in Kabale municipality, Uganda where the researcher moderated students' research work and discovered a problem of widespread unscholarly research out which needed to be addressed. This institution is located two kilometres from the Central Post Office in the Southern Division of the municipality. However, it has been left anonymous because the findings may affect student-intake in future, pose questions regarding the credibility of the qualifications obtained by its graduates and eventually lead the researcher into trouble.

1.11.2 Content scope

This study was generally concerned with the management of academic research in higher educational institutions. It was focused on investigating organisational factors affecting students' research work at the selected tertiary institution in Kabale municipality where this problem was identified.

1.11.3 Time scope

This study was limited to students' research conducted in the four-year academic period of 2010 – 2013 when moderation was done and serious anomalies in academic scholarship were identified. It was focused on the finalist classes of Diploma in Business Studies and Diploma in Business Administration programmes taught at the college. Most of them were awarded Diploma qualifications by the institution itself, while a few are awarded by Makerere University Business School.

1.12 Operational Definitions

The following terms were used in this study according to these meanings:

Control mechanisms refer to methods of managing variables in a desirable way.

Research output refers to research results documented in form of research proposals and reports as contributions to knowledge.

Research supervision refers to a special responsibility of overseeing by a lecturer over the performance of the student.

Teaching is an interpersonal influence aimed at changing the behaviour potential of another person.

Quality control is the process of ensuring compliance with standards and procedures set to maintain and enhance quality by using of techniques and activities that compare actual quality performance with goals and define appropriate action in response to a shortfall.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is the review of the literature related to the study about 'organisational factors affecting students' research output at the selected tertiary institution in Kabale municipality'. It focuses on the theoretical review, literature review and a summary.

2.2 Theoretical Review

This study was based on the systems theory which states that every organization is a complex socio-technical system, consisting of interrelated and interdependent subsystems in form of structure, people, task, culture, technology, etc forming a unitary whole (fig. 3). The functioning of one subsystem affects in varying degrees another and eventually the whole system, and that an open system relates with its environment through inputs and outputs (McAuley et al 2007; Guatam et al 2007, and Agarwal 2009). The main concepts are 'wholeness', 'interrelatedness' and 'interdependence' depicting organisational structure, functioning, and relationship with the environment. These depicted ways research teaching, supervision and quality control are structured, and functionally interrelated, interdependent, and affect students' research output at the selected tertiary institution in Kabale municipality.

2.3 Literature review

This review was generally based on the land-mark study in Comparative Education by Coombs (1985) who discloses that the quality of education largely depends on effective teaching, learning, and the academic environment.

2.3.1 Effective teaching and research output in higher education

Effective teaching does not mean being perfect or presenting a wonderful performance in class, but the process of bringing out the best in the learners by encouraging them to think for themselves rather than feeding them with answers (Kyriacou 1996, Craig 2010, Koenig n.d; Ukessays, n.a, n.d). However, achieving it is controversial among scholars.

Some studies by Ketchum and Queen (2008), Kumar (2011), Eikermann (2012), Mollman (2013) and Silvestri (2014) reveal that effective teaching can only be done by teachers who are professionally trained, with expert knowledge in their disciplines, high experience and who use classical teaching methods of lecturing, demonstration and personal assignments. They argue that professional training enables such teachers to give scholarly instruction and expert knowledge because no one can teach effectively what one does not know; high experience which enables them to learn many new things with which to help their students achieve their goals; and the lecturing is the most effective and efficient in presenting knowledge precisely and logically. Therefore they recommend that teaching in higher educational institutions should be done by only by professionally qualified teachers with Masters and PhD degrees. Felder, Prince, and Bucknell (2006) point out that this is the traditional pedagogical mode of delivery which has dominated higher education for centuries. It is based on the philosophy of positivism which regards absolute knowledge as an objective reality existing independently of human perception. The role of the teacher is to transmit this knowledge to the students naturally through lecturing while the students are expected to absorb it. It implies that the teacher is the foundation of effective teaching. This perspective is supported by field studies in USA where the National Council for Accreditation of Teacher Education (NCATE 2013) found out that teacher preparation,

knowledge of the subject matter and teaching experience were the leading factors for teacher effectiveness and in Nigeria where a study about teachers' quality as correlates of students' academic performance in Biology revealed that professionally qualified teachers enhance students' academic performance in the subject (Akinfe, Olofinniyi and Fashiku 2012). The Ugandan government too subscribes to the same view observing that the quality of education of any country depends largely on the quality of its teachers (Ministry of Education and Sports 1989) and by policy all teachers, instructors and lecturers in higher educational institutions in the country should have high academic and professional qualifications of masters and PhD degrees (National Council for Higher Education 2005).

However the researcher basing studies by Kyriacou (1996), Craig (2010), Koenig (n.d) and Ukessays, (n.a, n.d) observes that much as the above studies emphasize the importance of teacher-qualifications, experience and competence as basic requirements for effective teaching, they do not show how the same variables enable students to think for themselves and do their best. On the contrary they portray what qualifies a teacher to teach effectively in class. Yet as already noted above, effective teaching is not simply the teacher being perfect or presenting a wonderful performance in class, but bringing out the best in the learners by encouraging them to think for themselves rather than feeding them with answers. Therefore subsequent studies contradict this view. A study on teacher-quality and student achievement (n.a 2008) found out that there are effective teachers who lack some of these qualities, just as there are ineffective teachers who have all of them. Similarly another study in Niger and Guinea about the impact of teacher-training on students' performance revealed that professional skills alone cannot cause all the desired changes in the learner because other environmental factors such as pay, working conditions, class size interfere with the way

teachers fulfill their responsibilities in class (Ukessays 2003 – 2014). Furthermore Zuzovsky (2003) in Israel and Rice (2010) in USA reporting from other studies reveal that the real impact of experience is strongest during the first few years of teaching after which it declines, hence challenge the underlying assumption that regards more teaching experience as promoting effectiveness and therefore more is better. Above all, Kyriacou (1996) and Craig (2010) point out that there are other variables to consider in effective teaching. They are context variables such as the teachers' academic ability, subject difficulty, and institutional policies; process variables like the teacher's enthusiasm, rapport, instructional media; and product variables focusing on the desired outcomes of increased knowledge, skills, interest in the subject, motivation, academic self-confidence and autonomy (Fig. 6). These critics show that much as professionalism is basic for effective teaching, it is effectual only in combination with other environmental factors.

The above traditional mode of delivery is also criticised by other scholars. Raj (2014) criticises lecturing as an outdated pedagogical mode of delivery that encourages passive learning by not motivating students to participate actively in class. Kariuki, Kibete, Mungiria and Chuka (2012) in the study about the factors contributing to students' poor performance in mathematics in the Kenyan Certificate of Secondary Education found out that lecturing turns students into passive learners in class. Micheletti (2010), Meador (2013) and Kotelnikov (n.d) applying Freire's concept of the pedagogy of the oppressed criticise this mode of delivery as a mere banking approach in teaching which turns students into passive learners. Hence they urge teachers to think outside the box by breaking free from routine and become creative in teaching because students are not expected to learn in the same way. Felder, et al (2006), Koenig (n.d) and Bagilidde (2009) advocate for a change to the learner-centred teaching known as andragogy based on the modern philosophy of

constructivism which ensures that students participate actively in learning by constructing and reconstructing their own knowledge through experience. It requires inductive teaching methods such as case studies; collaborative learning; cooperative teaching; discovery-based learning; hands-on-training; inquiry-based learning; problem-based learning and project-based learning.

More specifically, Aguado (n.d), Koenig (n.d), and Ball & Pelco (2006) argue that research is most effectively taught through hands-on, cooperative and e-learning methods. Several field studies support this perspective. At the University of North Albama, 'learning by doing' in research enables students to gain a practical knowledge of data collection, analysis using statistical software, and writing up results (Aguado n.d). At the College of William and Mary, student-developed research projects provide active-learning experiences, motivation and first-hand challenges in literature review, formulating research hypotheses, designing their own studies, and making their own methodological decisions than simply reading from a textbook (Ball and Pelco 2006). At the University of Lucian in Romania, e-learning via the internet has been found to be effective and efficient for distance education (Borza, Beju, and Brindasu n.d.).

While the above studies showed that effective teaching of research methods is effectively achieved through the modern student-centred methods including hands-on, cooperative and e-learning methods, there was no study showing the variables influencing students' research output at the institution in Kabale Municipality. This was issue the research investigated first.

2.3.2 Effective supervision and students' research output in higher education

Research supervision is a special responsibility assigned to a lecturer to oversee a student's research leading to writing a scholarly research paper (London Deanery 2013; Carpenter, J. and Webb, C. n.d). However the way this is achieved is still controversial basing on the available studies.

Studies at Otago (2004), Oxford (2008), Exeter (2013), Victoria (2013), and Aston (2014) universities reveal the traditional view that effective research supervision is influenced by the support from the supervisor, institution and the student. The supervisor is the major source of such support through basic instruction, helping the student in planning the structure of the study, directing the student to appropriate sources of information, establishing meeting schedules, providing timely constructive feedback and encouraging the student to accomplish the work in time (Otago 2004). Therefore the institution provides a facilitating academic environment through well trained, qualified and experienced supervisors, policies and procedure such as the Code of Good Practice, and structural facilities like computers for use in research. The student complies with the guidance of the supervisor and institutional policies and procedures (Oxford Humanities Division 2008, Exeter 2013). At Makerere University (2007), a supervisor is seen as the mentor, research manager and counselor to the student who is expected to comply only.

Noort (2013) supports this view pointing out that students should expect regular, high quality advice, support and direction in their quest for academic excellence. The study at Walter Sisulu University revealed that 75% of the students were dissatisfied with supervisors' feedback, transfer and insufficient knowledge of the relevant fields. It recommended, inter alia, training of supervisors in research methodology and the

management of supervisor-student relationship (Wadesango and Machingambi 2011). These studies show that successful research output is contingent upon the level of support from the supervisor and in the context of this research. They imply that this support is the main organisational factor affecting students' research output in higher education.

However, other studies give a contra view. Gatfield (2005) criticizes the above supervision approach as pastoral because it makes the student heavily dependent on the support of the supervisor without motivating him to undertake and accomplish research on his own. Hence he proposes a contractual supervision style in which the student is highly motivated and able to take direction and act on his own initiative while the supervisor administers direction and exercises good management and interpersonal relationships. MacKoeg (2006) also criticizes the same approach as being direct-active focusing on what the supervisor does without enabling the student to conduct research on his own. Quoting other studies including Rowley and Flack (2004) and Stefani et al (2004), he points out that traditionally such supervision has been discredited because it portrays the supervisor as, inter alia, more of a subject expert; gatekeeper of academic standards; resource person and advisor; 'midwife' of the dissertation; director, project manager, shaper; scaffolder and supporter. He recommends the use of an indirect-passive supervision paradigm in which the supervisor arranges meetings, and adopt a listening, nondirective approach, waiting for students to think things through and solve their own problems as the most appropriate for undergraduate supervision because it establishes a balance between support and autonomy thereby enabling the student to do research more independently. This paradigm is implemented at Victoria University, Melbourne in Australia (2013) where supervisors provide academic support to their students

by helping them develop the required knowledge and skills to achieve the highest standard of research.

However, while the above studies indicate that effective research supervision is achieved through the modern style that provides for supervisor-support on one hand and enhances researcher-autonomy and independence as well so that the student can initiate and accomplish a study largely on his own, no study indicates whether the selected tertiary institution in Kabale municipality applies that style. This was another issue which the researcher had to find out.

2.3.3 Quality control and students' research output in higher education

Quality control is a process of ensuring that an output in form of a product or service conforms to a predetermined specification and complies with set criteria for maintaining and enhancing quality (NCHE 2014). In research particularly, the criteria for a standard scholarly research is whether the study has internal and external validity, is based on reliable sources of data, uses appropriate analytical methods which are meaningful in practical and statistical terms and has been completed in time (Mahmood 2011).

Some studies reveal many higher educational institutions world-wide have established internal and external quality control mechanisms to enable research students produce scholarly work. The University of Exeter (2013), Aston University (2014), London Deanery (2013), Makerere University (2007) and Uganda Management Institute (UMI 2011) have established quality assurance policy frameworks as internal quality control mechanisms. These consist of codes of good practice with rules and procedures through which supervisors provide clear intellectual leadership and precise guidance enabling students to produce excellent work by themselves. Applying these mechanisms enables students to plan their

research work, search for relevant literature, apply appropriate research methods, use instrumental data management techniques and are directed to particular training programmes and modules to achieve academic excellence (Noort 2013) and to have integrity by avoiding malpractices like plagiarism and fraud. The same mechanisms establish appropriate steps of dealing with such misconduct. Furthermore Batte and Kreme (n.d), Berry (n.d), Extracool (2011), Omkar (2011) and Allen (2014) reveal that modern ICTs are now being used to ensure that students' research output is more scholarly because of their speed, accuracy and efficiency in data collection, presentation and analysis. They include use of the internet in searching databases for related literature and bibliographic references; computer applications of MS-Word in typesetting; MS Excel and MS Access in data processing, storage and retrieval; and various computer software like SPSS, Epi-info, Epi-data, NCSS-PASS, STATA and SYSAT for data analysis. These are more effective than the traditional manual methods.

Kaufmann (n.d) points out that external quality control mechanisms require applying the most appropriate universal documentation styles such as the American Psychological Association style (APA) for the research in social sciences and business, Modern Language Association (MLA) for English literature and Chicago Manual of Style (CMS) for humanities or history. In Uganda, the National Council for Higher Education requires all higher education institutions to have their research work externally moderated (NCHE 2007).

However, studies at the universities of Otago (2004) and Walter Sisulu University (Wadesango, et al 2011) reveal that students' progress in graduate research was hampered by the supervisors being too busy with other students and personal commitments; giving

poor feedback; disagreement with students about the aims of the research and how to interpret their findings; not being update with the field and lack experience in research. Furthermore, a number of scholars reveal that many emerging third world countries lack quality assurance mechanisms and how low ICT integration in their higher education systems. Field studies in Uganda by Matovu (2003, Mulira (2004), Ndidde, J. et al (2007) and Tusubira et al (2001) reveal that successful integration of ICT in the country's education sector is affected by lack of infrastructure, adoption, capacity building and finance in educational institutions. Similar problems were cited in Kenya such as lack of qualified teachers, computers, regular internet connectivity, electricity and initiative by the community leaders; computers are expensive, broken and obsolete; there is burglary and fear by the administration and teachers to adopt ICT (Mungai (2011).

The above field studies indicate that although higher educational institutions may have these quality control mechanisms in place, it does not necessarily ensure scholarly research output because they may not be applied. While these controls have improved the quality of students' research in higher educational institutions world-wide, nothing was at first known about the quality control mechanisms that are applied at the selected tertiary institution in Kabale municipality, and how they affected students' research output. Subsequent investigations revealed that quality control of students' research out was affected by lack of a Quality Assurance Policy Framework and the external influences in writing and typing students' research.

2.3.4 Summary

The above review reveals that this study was based on the systems theory because it could depict environmental factors as the organisational factors affecting students' students'

research output in the college. Furthermore, it shows that although traditional approaches in teaching, supervision and quality control of students' research output were still followed by some higher educational institutions, the application of modern approaches in form of student-centred teaching and supervision, and computer software would be more effective in enabling students' research output be more scholarly.

Yet, lack of similar studies at the selected tertiary institution in Kabale brought into question whether these approaches were being applied at the institution and ways they affect students' research output, these issues were investigated in this study. These were the issues which the researcher had to investigate.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This study was about the ‘organisational factors affecting students’ research output at the selected tertiary institution in Kabale municipality. This chapter describes the methodology used in the study. It shows the research design, study population, determination of the sample size, sampling techniques and procedure, data collection methods, data collection instruments, validity and reliability, procedure of data collection, data analysis, and measurement of variables.

3.2 Research Design

A research design is the overall strategy chosen to integrate the different components of the study in a coherent and logical way, thereby ensuring that it effectively addresses the research problem (Kirshenblatt-Gimblett 2006). This study was carried out using the cross-sectional research design which provides a 'snapshot' of the outcome and the characteristics associated with it, at a specific point in time. Although its results were static and time-bound (Barratt and Kirwan 2009), it was the most appropriate design because it effectively provided the required data from the cross-section of the administrative staff, lecturers and students for the period 2010 – 2013 in this study on effect of teaching, supervision and quality control on students’ research (Amin 2005). Both quantitative and qualitative approaches were used because some data was quantified while other data was descriptive. The quantitative approach was used to collect quantified data for investigating relationships between the independent and dependent variable in this study (Amin 2005). Then in the qualitative approach, the ethnographic strategy was used to describe data respondents’ attitudes, feelings and opinions towards research which could have been omitted from

questionnaires, and how this affects students' research output. No other qualitative strategy could used to describe such variables.

3.3 Study Population

A population is a group of individual persons, objects or items from which samples are taken for measurement (Mugo 2002). The study population in particular is the entire group of people, events or things investigated by the researcher (Sakaran 2003).

In this study, the study population comprised 85 people, namely five administrative staff, five lecturers for research methods, and 62 students studying research who were composed of 31 students in year one and 44 students in year two. The five administrative staff were the Principal, Deputy Principal, Academic Registrar, Human Resource Manager, and Librarian who were informed about the quality assurance guidelines for research which the lecturers and students are expected to follow, and so were the most appropriate to give a critique in this study (Records in the Academic Registrar's office, 2013). The lecturers and students were targeted because they interact in the teaching-learning process, and therefore can reveal accurately the effectiveness of research teaching and supervision.

3.4 Determination of the Sample size

A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Webster 1985). Sampling is the process by which a relatively small number of individuals is selected from the whole and analysed in order to find out something about the entire population from which it was selected (Koul 1997). The population sample for this study comprised 70 respondents selected from the target population of 85 as shown below (table 1):

Table 1: Population sample

Category	Population	Sample size	Sampling technique	Percentage
Administrators	5	3	Purposive	60%
Lecturers	5	5	Purposive	100%
Students	75	62	Random	83%
Total	**85**	**70**	**-**	**-**

Source: Academic Registrar's records (2013)

The administrators comprised the Academic Registrar who is concerned with the curriculum. He was selected because he was the most suitable to explain whether the institution had the quality control mechanisms for research. The Human Resource Manager who is concerned with staffing. He too was selected because he was the most suitable to explain whether the institution had the qualified staff to teach research methods and supervise students' research projects effectively. The Librarian is concerned with instructional media respectively. He was also selected because he was the most suitable to explain whether the institution had quality assurance frameworks and are being used by both the lecturers and students in research. Then the five lecturers for research methods were included in the sample because they were concerned with teaching. Finally 30 students in year one and 40 students in year two were selected to get balanced views from both academic years regarding their experiences.

3.5 Sampling techniques and procedure

A combination of probability and non-probability sampling techniques were applied in this study because of the quantitative and qualitative approaches being followed. In probability sampling, the number of students for inclusion in the sample were determined using random

sampling from a class 75 students basing on Krejcie and Morgan (1970) procedure as cited in Amin (2005). Then in non-probability sampling, purposive sampling was applied in selecting the administrators and lecturers who are unique and can provide the required data (Neuman 2007). No other techniques could be suitable for this selection.

3.6 Data Collection Methods

Three data collection methods were applied in this study. They were surveying, interviewing, and documentary study.

3.6.1 Questionnaire survey

A survey is a method of collecting information about a human population whereby direct or indirect contact is made with the units of the study such as individuals, organizations, communities by using systematic methods of measurement such as questionnaires and interviews (Gale Encyclopaedia of Public Health, n.a, n.d). Closed-ended questionnaires in this case were applied in collecting quantitative data from students which could not be collected by any other methods. These were the most appropriate because they were helpful in collecting detailed technical quantitative data to explain ways teaching, supervision and quality control affect students' research output, which was compared with qualitative data from interviews and documentary study leading to logical conclusions in the study (Koul 1997).

3.6.2 Interviewing

An interview is an oral questionnaire where the investigator gathers data through direct verbal interaction with the participants. This method was applied in collecting data regarding people's attitudes, feelings and opinions which were descriptive. Much as it was time-consuming, costly and required a skilled interviewer (Singh 2013), it created opportunities

for the researcher to gain first-hand information through inter-face with the respondents, and allowed them to talk longer and freely than by telephone (Amin 2005; Anderson, n.d.).

3.6.3 Documentary review

This method was applied in collecting data from accessible primary and secondary sources regarding students' research output which could not be gathered using any other method. This was helpful in comparing content from different sources for triangulation (Koul 1997).

3.7 Data collection instruments

Three data collection instruments were applied in collecting the required data. They were questionnaires, interview-guides, and documentary study guides, as follows:

3.7.1 Questionnaires

Self-administered structured questionnaires were applied to collect quantitative data from lecturers and students which were scored and analysed statistically. They enabled respondents to address issues freely conveniently and even check personal records where necessary (Neuman 2007). They consisted of questions using the Likert scale. This scale required a variety of views ranging from 'strongly disagree' 'strongly agree' continuum to cater for the diversity of opinions that could easily be scored and analysed statistically. No other instrument could be applied to do so.

3.7.2 Interview-guides

In-depth interview-guides with open-ended questions were used to collect to get divergent descriptive views from the lecturers regarding research teaching and supervision; the Academic Registrar regarding academic policies and procedures; Human Resource Manager about staffing, and Librarian regarding quality assurance. They were of face-to-face type allowing the highest response rates (Neuman 2007).

3.7.3 Documentary checklist

Documentary analysis, also known as documentary research is the process of collecting, recording, analyzing and interpreting the information from secondary sources such as texts and magazines, news, journals, government publications, novels, film and video, paintings and the internet. Much as the interpretation was subjective, the documentary guide was the most appropriate in enabling the researcher access readily available information. The researcher assessed the same information through browsing the internet (Desey, 2003). Therefore, the documentary study guide was applied to analyse critically the data from primary and secondary sources regarding this study. The major documents consisted of circulars, correspondences, students' research proposals and reports, minutes of management meetings, and academic performance results. The study focused on lower literary criticism examining the date, source (authorship), message, and implication in relation to the study (Koul 1997).

3.8 Validity and reliability

3.8.1 Validity

The 'validity' of a research instrument is the degree to which the instrument measures what it is intended to measure (Gay 1996) or how well the content measured fits with actual reality (Neuman 2007). The researcher used the expert judgment of the supervisors and other experts to verify the validity of the instruments. To assess this, they were contacted to evaluate the relevance of each item in the instruments to the objectives. The experts rated each item as either relevant or not relevant. Validity was determined using Content Validity Index (C.V.I). C.V.I=Items rated relevant by both judges divided by the total number of items in the questionnaire as shown hereinafter.

CVI = No. of items rated relevant = 36/40 = 0.90
Total no. of items

The instrument was therefore found to be valid, since the CVI of 0.90 is much greater than 0.7 as recommended by Amin (2005) that for the instrument to be valid, the C.V.I should be at least 0.7.

3.8.2 Reliability

Reliability is the extent to which a research instrument yields consistent results across the various items when it is administered again at a different point in time (Sekaran, 2003, Neuman 2007). To establish reliability, the instruments were pilot-tested twice on the same subjects at a time interval of four weeks. According to Amin (2005), test-retest reliability can be used to measure the extent to which the instrument can produce consistent scores when the same group of individuals is repeatedly measured under same conditions. The results from the pretest were used to modify the items in the instruments.

To ensure reliability of quantitative data, the Cronbach's Alpha Reliability Coefficient for Likert-Type Scales test was performed. In statistics, Cronbach's alpha is a coefficient of reliability. It is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees. According to Sekaran (2003) some professionals as a rule of thumb, require a reliability of 0.70 or higher (obtained on a substantial sample) before they use an instrument. Upon performing the test, the results should be 0.7 and above to be considered reliable. Using SPSS, Cronbach's alpha was found to be 0.818. The instruments were therefore reliable since this is above the recommended 0.70 (Amin, 2005). The instruments were therefore suitable for data collection.

3.9 Procedure of data collection

This study was conducted through five phases. The first was a pilot study in one week at the Uganda College of Commerce, Kabale which is a sister institution where the same research methods course is offered, after which the instruments were adjusted accordingly. The second was for administering questionnaires in two weeks at the selected tertiary institution in Kabale municipality. The third was for conducting interviews and documentary analysis in two weeks. The fourth was for data analysis in four weeks. The fifth phase was for writing the dissertation and printing lasting two weeks.

3.10 Data analysis

3.10.1 Analysis of quantitative data

Statistical data derived from the questionnaires was computed using the Pearson product-moment correlation coefficient to establish the effect of research teaching, supervision and quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality. This was the most appropriate in computing the relationship between two independent variables indicating the degree to which the two variables are related to one another. The formula was:

$$r_{xy} = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n(\sum X^2) - (\sum X)^2][n(\sum Y^2) - (\sum Y)^2]}}$$

Where

n = number of paired observations; $\sum XY$ = sum of cross products of X and Y; $\sum X$ and $\sum Y$ = are sums of X and Y scores respectively; $\sum X^2$ = sum of all the squared values of the X scores; $\sum Y^2$ = sum of all the squared values of the Y scores; $(\sum X)^2$ = sum of all X scores; and $(\sum Y)^2$ = sum of all Y scores. The results were 0.000 which was between – 1.00 and +

1.00 indicating a positive relationship (Amin 2005). The statistical package for social scientists (SPSS) tool was used in computing the data.

3.10.2 Regression analysis

This is a statistical forecasting model that helps in determining both the direction and amounts by which the dependent variable changes due to variations in the independent variable(s), by one unit, giving a cause-effect relationship (Neuman 2007). Therefore a regression analysis was computed to determine the extent to which teaching, supervision and quality control affect students' research output at the selected tertiary institution in Kabale municipality.

3.10.3 Analysis of qualitative data

Qualitative data from the same questionnaires, interviews, and documentary study was presented in descriptive tables (tables 8 – 11) and subjected to content and inductive modes of analysis. This applied three steps of data organisation: reading through it to get sense of information, coding it to generate a description of the setting and themes, and interpreting it (Amin, 2005). Finally both types of data were triangulated leading to discussion, conclusions and recommendations.

3.11 Measurements of variables

Then the Likert scale was applied in measuring variables whose data in the structured questionnaires was in a continuum of responses ranging from 'strongly disagree' to 'strongly agree'. These responses were scored as follows: Strongly Disagree (SDA) = 1; Disagree (D) = 2; Neutral (N) = 3; Agree (A) = 4; and Strongly Agree = 5.

The p-values for Teaching, Supervision and Quality Control Mechanisms are all equal zero (0.000), which is less than the critical value of 0.025

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTEPRETATION OF FINDINGS

4.1 Introduction

This chapter presents the analysis and interpretations of the study findings arising from the data collected from the field using questionnaires, interview guides, and documentary analysis from secondary sources. The first section presents the response rate followed by presentations and analyses of the study findings in relation to specific objectives. The main purpose of the study was to find out organisational factors affecting students' research output at the selected tertiary institution in Kabale municipality.

4.2 Response Rate

This section presents the summary of statistics for the response rates from the field as shown in the table 2 below:

Table 2: Response rates from the field

Respondents' Category	Target sample	Actual response	Response rate
Administrators	5	3	**60%**
Lecturers	5	5	**100%**
Students	75	62	**83%**
Total	**85**	**70**	**82.4%**

Table 2 above shows that a total of 70 questionnaires were distributed and 52 were returned giving an approximate response rate of 74.3%, which is an internationally acceptable response rate since it is above the 50% rate that Mugenda and Mugenda (2003) recommend. The researcher in addition to the data got through questionnaires, also collected qualitative data through interviews from the Academic Registrar, Human Resource Manager, Librarian,

and the lecturers for research methods (Appendix B: Tables 8 – 11, and through Documentary review (table 16). This response rate indicates that data was collected from a reasonable number of respondents compared to the target population; hence this data and findings from it can be relied on according to Mugenda and Mugenda, (1999). The high response rate was because of good data collection strategies that were used by the researcher and the fact that the study was conducted in a small geographical area for the institution.

4.3 Demographical data

This sub-section prevents demographic information regarding the respondents focusing on their age, education level and hierarchy at the selected tertiary institution in Kabale municipality. This data was summarised in tables as shown below:

4.3.1 Gender

Table 3: Distribution of respondents by gender

Gender category	Frequency	Percentage
Male	25	**34.7%**
Female	47	**65.3%**
Total	**72**	**100%**

Table 3 above shows that female respondents were the majority (65.3%) while the male were fewer (34.7%). This reflects the actual gender proportions at the institution where about 75% of the population is of females. This is unique to this college because according to the latest report on the state of higher education in the country, female enrolment is 44% while for males it is 56% (NCHE 2012).

4.3.1 Age of the respondents

The age-range of the respondents was 20 – 50 years, as shown in table 4 below:

Table 4: Distribution of the respondents according to age level

Age category	Frequency	Percentage
20 – 30 Years	63	**87.5%**
31 – 40 Years	7	**9.7%**
41 – 50 Years	2	**2.8%**
Total	**72**	**100%**

The results in table 4 above shows that the majority of the respondents 63 (87.5%) were below the age of 30 years while few 9 (12.5%) were above 30 years. These results reflect the population age-structure of the selected institution where the majority is of students below 30 years, and the minority is of staff.

4.3.2 Education level

The education level of the respondents was from 'A' level certificate to postgraduate diploma as shown in table 5 below:

Table 5: Distribution of the respondents according to education level

Education level	Frequency	Percentage
'A' Level Certificate	63	**87.5%**
Diploma	2	**2.8%**
Bachelors Degree	7	**9.7%**
Total	**72**	**100%**

Table 5 above shows that the majority of the respondents 63 (87.5) were of 'A' level while 9 (12.5%) were holders of diploma and Bachelors Degree qualifications. This reflects the two major education levels at the selected institution between students and staff where the

students are the majority with 'A' level certificates while staff members are holders of diploma and degree qualifications.

4.3.3 Hierarchy in the organisation

The respondents were distributed in three levels of hierarchy at the selected institution as students, lecturers and administrators indicated in table 6 below:

Table 6: Distribution of the respondents according to hierarchy

Education level	Frequency	Percentage
Administrators	3	**4.3%**
Lecturers	5	**7.1%**
Students	62	**88.6%**
Total	**70**	**100%**

Table 6 above shows that the majority of the respondents 62 (88.6%) were students while the minority constituted of lecturers 5 (7.1%) and administrators 3 (4.3%). This also reflects the actual students-staff proportions at the selected tertiary institution in Kabale municipality where the students in the lower rank are the majority while the staff members (lecturers and administrators) in the higher rank constitute the minority. It implies that the dominant views in the study were from the students. This was very appropriate because the dimensions of the independent variables as shown in the study objectives, namely teaching, supervision and quality control were all focused on students' research output. This required the dominant views to be from the students themselves as the most affected by the research problem.

4.4 Empirical findings on organisational factors affecting students' research output at the selected tertiary institution in Kabale municipality

The empirical findings are presented using descriptive statistics of frequency distributions, correlation coefficients and coefficient of determination coefficients. The study comprised of three specific objectives as namely: to establish the effect of teaching on students' research output at the selected tertiary institution in Kabale municipality; to find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality; and to investigate the effect of quality control students' research output at the selected tertiary institution in Kabale municipality. The findings are presented starting objective by objective, followed by hypotheses testing. All the variables were measured on a five-point scale ranging from 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agee, 5=Strongly Agree.

4.4.1 To establish the effect of teaching on students' research output at the selected tertiary institution in Kabale municipality

In order to understand the attitudes and perceptions of the respondents on the issue of teaching so as to access whether it affects students' research output at the selected tertiary institution in Kabale municipality, the researcher used a total of 10 items on the questionnaire, to which the respondents were required to show their level of agreement or disagreement. Table 7 below is the summary of the findings.

Table 7: Views of respondents on teaching - related factors

Items measuring teaching - related factors	SD	D	N	A	SA	Mean	S.D.
Students have been taught research methods effectively	23.1	71.2	1.9	1.9	1.9	1.88	0.70
The lecturer is competent in teaching research methods	13.5	71.2	0.0	9.6	5.8	2.23	1.00
Teaching time for research methods is adequate	76.9	19.2	3.8	0.0	0.0	1.27	0.53
Teaching research methods is done mainly through lecturing	7.7	5.8	3.8	13.5	69.2	4.31	1.26
The mode of teaching research methods encourages students to do research work by themselves	78.8	13.5	0.0	1.9	5.8	1.42	1.03
Lecturing alone is sufficient to enable students select research topics	42.3	55.8	1.9	0.0	0.0	1.60	0.53
Lecturing alone is sufficient to enable students review literature	50.0	36.5	7.7	1.9	3.8	1.73	0.97
Lecturing alone is sufficient to enable students write research proposals	59.6	26.9	5.8	5.8	1.9	1.63	0.97
New learning methods like self –discovery, problem based, inquiry-based and e-learning are also commonly encouraged	84.6	7.7	1.9	1.9	3.8	1.33	0.92
Students prefer making their own notes to being given hand-outs by lecturers	88.5	5.8	3.8	0.0	1.9	1.21	0.70

(Source: Primary data from field study)

On the variable of teaching-related factors, the majority of the respondents expressed dissatisfaction on nine out of the ten items, with 94.3% disagreeing that they have been taught research methods effectively; 84.7% disagreeing that the lecturers are competent in teaching research methods; 96.1% disagreeing that the teaching time for research methods is adequate and 92.3% disagreeing that the mode of teaching research methods encourage students to do research work by themselves. However the majority, 82.7% were satisfied that that teaching research methods is done mainly through lecturing.

These responses indicated that teaching research methods mainly through lecturing was not effective because it could not encourage students to do research work by themselves as they could not select research topics, review literature, write research proposals and reports, nor are the new learning methods like self-discovery, problem-based, inquiry-based and e-learning commonly encouraged, nor was teaching time adequate. That is why students prefer being given notes to making their own.

This perspective was substantiated by the views from the lecturers of research methods and college administrators. The lecturers (Table 12) pointed out that they have limited teaching time; cannot interact with students effectively outside class time, give students extra help nor compensate for interrupted teaching time by other college activities. They teach mainly through lecturing and guided discussion but not modern teaching methods of hands-on training, which do not enable students to do research by themselves – especially identifying research problems; literature review; data analysis. Teaching is often interrupted by many coursework tests, projects, field trips and meetings.

The Academic Registrar (Table 13) added that lecturing makes students fail to identify research problems and state clear objectives. The Human Resource Manager (Table 14) also added that all lecturers were part-time staff with limited contact time with students. Furthermore the documentary review (Table 16) also revealed that generally most of the teaching staff members could not apply the modern teaching methods of hands-on, self–discovery, problem-based, inquiry-based and e-learning.

These responses agree with earlier findings through literature review that apart from the teacher's professional qualifications and competence, effective teaching is influenced by other environmental factors including inadequate teaching time.

4.4.2 To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality

In order to understand the attitudes and perceptions of the respondents on the issue of supervision so as to assess whether it affects students' research output at the African College of Commerce, Kabale, the researcher used a total of 7 items on the questionnaire, to which the respondents were required to show their level of agreement or disagreement. Table 8, below is a summary of the findings.

Table 8: Views of respondents on supervision - related factors

Items measuring supervisor-related factors	SD	D	N	A	SA	Mean	S.D.
There are set guidelines in the college for research writing being followed strictly by students	23.1	36.5	28.8	7.7	3.8	2.33	1.04
Research guidelines in the college enable students select research topics	36.5	50.0	5.8	7.7	0.0	1.85	0.85
Research guidelines in the college enable students review literature	55.8	34.6	5.8	3.8	0.0	1.58	0.78
Research guidelines in the college enable students write research proposals and reports	67.3	23.1	3.8	3.8	1.9	1.50	0.90
Students are guided by supervisors in writing research proposals	5.8	0.0	3.8	59.6	30.8	4.10	0.93
Students are guided by supervisors in writing research reports	3.8	0.0	0.0	50.0	46.2	4.35	0.84
Most students conduct research on their own	86.5	5.8	0.0	1.9	5.8	1.35	1.03

(Source: Primary data from field study)

On the variable of supervision-related factors, the majority of the respondents expressed dissatisfaction on five out of the seven items; with 59.6% disagreeing that there are set guidelines in the college for research writing being followed strictly by students, 86.5% disagreeing that research guidelines in the college enable students select research topics, 90.4% disagreeing that research guidelines in the college enable students review literature,

90.4% disagreeing that research guidelines in the college enable students write research proposals and reports and 92.3% disagreeing that most students conduct research on their own. However the majority of the respondents were satisfied on the rest of the items; with 90.4% agreeing that students are guided by supervisors in writing research proposals and 96.2% agreeing that students are guided by supervisors in writing research reports.

These results implied that there were no research guidelines in the college to enable students do research on their own through selecting topics, reviewing literature and writing proposals and reports. These views were substantiated with more data from interviewing the lecturers (Tables 12) and Academic Registrar (Tables 13) and also from the documentary review (Table 16). The lecturers

The lecturers pointed out that they have limited time to interact with the students and there are no research supervision guidelines. This affects students' ability to identify research problems, review literature, choose appropriate research design, prepare instruments and analyse data analysis. Consequently students cannot do research on their own but get help from outside the college and some lecturers; copy work from previous students. Such work has different formats, typing errors, wrongly stated problems, incomplete objectives and research questions, poor grammar and is never completed in time. Research supervision is interrupted by other college activities such as field tours, project work assessment, coursework tests and other external influence activities.

The Academic Registrar revealed that there were no set guidelines for research supervision but only the syllabus showing the format of proposal and report writing; lack of these guidelines negatively affects students' research supervision because they cannot identify

research problems, review literature, choose appropriate research design, prepare instruments for data analysis.

Finally the documentary review also revealed problems of plagiarism, technical and typing mistakes observed by moderators, and recommended that the college should adopt the most recent APA edition in research supervision; appoint properly trained and experienced lecturers; continuously monitor and evaluate the supervision of research on result-oriented basis (Table 15).

4.4.3 To investigate the effect of quality control on students' research output at the at the selected tertiary institution in Kabale municipality

To understand respondents' attitudes and perceptions of quality control mechanisms and whether they affect students' research output at he selected tertiary institution in Kabale municipality, the researcher used a total of 8 items on the questionnaire, to which the respondents were required to show their level of agreement or disagreement, as summarised in Table 9 below:

Table 9: Views of respondents on quality control mechanisms-related factors

Items measuring quality control mechanisms-related factors	SD	D	N	A	SA	Mean	S.D.
The college has a research marking guide	3.8	11.5	76.9	5.8	1.9	2.90	0.63
The research marking guide is followed strictly in marking	7.7	11.5	73.1	3.8	3.8	2.85	0.78
Students' research work is always moderated by experts before results are published	9.6	5.8	63.5	13.5	7.7	3.04	0.95
Students are taught about the use of the Internet in research	40.4	32.7	7.7	9.6	9.6	2.15	1.32
Students have access to Internet facilities for purposes of research	53.8	30.8	7.7	3.8	3.8	1.73	1.03
Students are guided by supervisors in preparing valid research instruments	9.6	1.9	7.7	55.8	25.0	3.85	1.13
Students are trained on the use of computer software such as SPSS for data analysis	88.5	5.8	3.8	0.0	1.9	1.21	0.70
Students are trained to typeset their research proposals and reports	94.2	5.8	0.0	0.0	0.0	1.06	0.24

(Source: Primary data from field study)

On the variable of quality control mechanisms-related factors, the majority of the respondents expressed dissatisfaction on four out of the eight items: with 73.1% disagreeing that students are taught about the use of the internet in research; 84.6% disagreeing that they have access to internet facilities for purposes of research; 94.3% disagreeing that they are trained to use computer software such as SPSS for data analysis and 100.0% disagreeing that they are trained to typeset their research proposals and reports. There was however majority respondents who were neutral on three items that the college has a research marking guide (76.9%); it is followed strictly in marking (73.1%) and that students' research work is always moderated before results are published (63.5%). Then the majority of the respondents, 80.8% were satisfied on whether students are guided by supervisors in preparing valid research instruments.

These responses indicated that students were not helped to conduct research using modern ICT facilities of computing software and the internet nor to typeset their finished research proposals and reports. This was supported by the Librarian who commented that although the library had computers connected to internet and other online resources like textbooks and journals, these technologies were rarely used by the teaching staff (Table 15). The responses reflect earlier observations in the literature review that although higher educational institutions may have these quality control mechanisms in place, it does not necessarily ensure scholarly research output because they may not be applied.

4.5 Hypothesis testing

This section presents the results of the three hypotheses that were under investigation during the study. Although there are several approaches to hypothesis testing, the researcher used one of the common approaches, known as probability approach. Using this approach to

hypothesis testing, the probability value (p-value) given in the output is exactly the p-value used for the hypothesis testing exercise. There are however, a number of recommended steps for hypothesis testing that have to be followed (Amin, 2005, Mugenda and Mugenda, 1990).

Step 1: Specification of the hypotheses

Hypothesis number 1	Teaching has a significant effect on students' research output at the selected tertiary institution in Kabale municipality
Hypothesis number 2	Supervision has a significant effect on students' research output at the selected tertiary institution in Kabale municipality
Hypothesis number 3	Quality control mechanisms have a significant effect on students' research output at the selected tertiary institution in Kabale municipality

Step 2: Selecting the significant level

The significance level for testing all the hypotheses has been set at 95% confidence level. It implies that all one-tailed tests shall be tested using a p-value of 0.05 and two-tailed tests shall be tested using a p-value of 0.025.

Step 3: Calculating the test – statistics (correlation)

Table 10: Correlation table for teaching, supervision and quality control mechanisms verses students' research outputs at the selected institution

Variable	Spearman's Rho	Teaching	Supervision	Quality Control Mechanisms	Students' Research Outputs
Teaching	Correlation Coefficient	1.000	.331*	.432*	.625*
	Sig. (2-tailed)	.	.016	.001	.000
	N	52	52	52	52
Supervision	Correlation Coefficient	.331*	1.000	.455*	.496*
	Sig. (2-tailed)	.016	.	.001	.000
	N	52	52	52	52
Quality Control Mechanisms	Correlation Coefficient	.432*	.455*	1.000	.509*
	Sig. (2-tailed)	.001	.001	.	.000
	N	52	52	52	52
Students' Research Outputs	Correlation Coefficient	.625*	.496*	.509*	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	52	52	52	52

Correlation is significant at the 0.05 level (2-tailed).

Table 10 above shows a matrix of correlation statistics between the three independent variables under investigation and the dependent variable. There are however a few statistics that were used to explain the relationships between the independent variables and the dependent variable. It shows that there is a moderate positive relationship between Teaching and Students' Research Output at selected tertiary institution in Kabale municipality, given by Spearman's correlation coefficient of 0.625. It further shows that there is a moderate positive relationship between Supervision and Students' Research Output at selected tertiary institution in Kabale municipality, given by Spearman's correlation coefficient of 0.496. It further shows that there is a strong positive relationship between Quality Control Mechanisms and Students' Research Output at selected tertiary institution in Kabale municipality, given by Spearman's correlation coefficient of 0.509.

Step 4: Calculating the p-value

The p-values for Teaching, Supervision and Quality Control Mechanisms are all equal zero (0.000), which is less than the critical value of 0.025 (two-tailed test) that is used to test the significance of Spearman's correlation coefficient.

Step 5: Comparing the computed p-value with the significant level.

Since the p-values for correlation coefficients are all less than 0.025 the researcher accepted that the three relationships between each of the independent variables and the dependent variable were statistically significant.

Step 6: Interpreting the results

The above findings can therefore be interpreted as follows:

(i) There is a statistically significant relationship between Teaching and Students' Research Output at the selected tertiary institution in Kabale municipality (r=0.625,

p-value<0.025(=0.000), N=52). This means that improved teaching translates or leads to improved students' research outputs, and the reverse is true.

(ii) There is a statistically significant relationship between Supervision and Students' Research Output at the selected tertiary institution in Kabale municipality (r=0.496, p-value<0.025(=0.000), N=52). This means that improved supervision translates or leads to improved students' research outputs, and the reverse is true.

(iii) There is a statistically significant relationship between Quality Control Mechanisms and Students' Research Output at the selected tertiary institution in Kabale municipality (r=0.509, p-value<0.025(=0.000), N=52). This means that improved Quality Control Mechanisms translates or leads too improved students' research outputs, and the reverse is true.

Step 7: Making the decision

The researcher further computed the coefficient of determination (r-square) that is used to explain the variability in the dependent variable that can be explained by the variability in the independent variable.

Table 11: The coefficients of determination for each of the independent variables

Independent Variables	**Spearman's Correlation Coefficient**	**Sign. (2-tailed)**	**Coefficient of determination (r-square)**
Teaching	0.625	0.000	0.391
Supervision	0.496	0.000	0.246
Quality Control Mechanisms	0.509	0.000	0.259

Table 11 above shows the coefficients of determination for the independent variables under study. The coefficient of determination for Teaching, 0.391, indicates that 39.1% of the variability in Students' Research Outputs can be explained by the variability in Teaching at the selected tertiary institution in Kabale municipality. This was supported by the lecturers who, through interviews (table 12), said that as part-time lecturers, their teaching was limited to time-tabled hours only (100%); they are unable to interact with students outside class time (60%); cannot give students extra help (80%); cannot compensate for interrupted teaching time by other college activities (100%), and furthermore teaching is often interrupted by many coursework tests (100%), projects (60%), field trips (80%), and meetings (40%).

The coefficient of determination for Supervision, 0.246, indicates that 24.6% of the variability in Students' Research Outputs can be explained by the variability in Supervision at the selected tertiary institution in Kabale municipality. This too was supported by the lecturers through interviews (table 12) who, said that as part-time lecturers, have limited time to supervise their students; find it hard to know students well; are often tired after teaching; supervision time is often interrupted by other college activities such as field tours, project work assessment, coursework tests and external influence; there are no set guidelines for research supervision but only the syllabus is available showing the format of proposal and report writing; besides, even no students do research on their own but prefer copying work from previous students, and getting help from outside the college and some lecturers.

The coefficient of determination for Quality Control Mechanisms, 0.259 indicates that 25.9% of the variability in Students' Research Outputs can be explained by the variability in Quality Control Mechanisms at the selected tertiary institution in Kabale municipality. This too was supported by the lecturers through interviews (table 12) Academic Registrar (table

13), and the Librarian (table 14) through interviews, who said that much as the College has internet services and computing facilities students do not use them but prefer using the internet for recreation and typing their work outside the college.

Step b: Conclusions

The following conclusions were therefore made on each of the hypotheses:

Hypothesis number 1, which was stated as thus: Teaching has a significant effect on students' research output at the selected tertiary institution in Kabale municipality, was accepted.

Hypothesis number 2, which was stated as thus: Supervision has a significant effect on students' research output at the selected tertiary institution in Kabale municipality, was accepted.

Hypothesis number 3, which was stated as: Quality control mechanisms have a significant effect on students' research output at the selected tertiary institution in Kabale municipality, was accepted.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, discussions, conclusions and recommendations got from the research findings guided by the research general objective and specific objectives. These were as follows: to establish the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality; to find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality; to investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality.

5.2 Objective one: To establish the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality

Teaching was studied by asking the respondents ten (10) questions with the responses measured on the Likert scale. The findings got indicate that Teaching has a moderate positive relationship with Students' Research Outputs. The p-value for teaching is less than 0.025 (=0.000), given r=0.625, the researcher therefore accepted the relationship as statistically significant. This implies that improvement in Teaching leads or translates into an improvement in Students' Research Outputs. Similarly, a decline in Teaching leads or translates into a decline in Students' Research Output.

5.3 Objective Two: To find out the effect of supervision on students' research output at the at the selected tertiary institution in Kabale municipality

Supervision was studied by asking the respondents seven (7) questions with the responses measured on the Likert scale. The findings got indicate that Supervision has a moderate positive relationship with Students' Research Output. The p-value for supervision is less

than 0.025(=0.000), given r=496, the researcher therefore accepted the relationship as statistically significant. This implies that improvement in Supervision leads or translates into an improvement in Students' Research Output. Similarly, a decline in Supervision leads or translates into a decline in Students' Research Output.

5.4 Objective Three: To investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality

Quality Control Mechanisms was studied by asking the respondents eight (8) questions with the responses measured on the Likert scale. The findings got indicate that Quality Control Mechanisms have a moderate positive relationship with Students' Research Outputs. The p-value for Quality Control is less than 0.025 (=0.000), given r=0.509, the researcher therefore accepted the relationship as statistically significant. This implies that improvement in quality control mechanisms leads to an improvement in Students' Research Output. Similarly, a decline in Quality Control translates into a decline in Students' Research Output.

5.5 Discussion of the findings

In this section the researchers discusses the findings of the study according to the study objectives.

5.5.1 Objective one: To establish the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality

The findings from the students indicated that teaching has a moderate positive relationship with their research output. This data was substantiated by the views from the lecturers of research methods and college administrators. The lecturers (Table 12) pointed out that they have limited teaching time, cannot interact with students effectively outside class time, give students extra help nor compensate for the teaching time interrupted by other college

activities. Furthermore, they revealed that they teach mainly through lecturing and guided discussion but not modern methods of hands-on training, which do not enable students to do research by themselves and that teaching is often interrupted by other college activities of coursework tests, projects, field trips and meetings. The Academic Registrar (Table 13) pointed out that lecturing makes students fail to identify research problems and state clear objectives, while the Human Resource Manager (Table 14) also added that all lecturers were part-time staff with limited contact time with students. The Librarian (Table 15) too added that the available instructional media like handouts, online journals, electronic databases and computer software are rarely used. Data from the documentary review (Table 16) also revealed that generally most of the teaching staff members cannot apply the modern teaching methods of hands-on, self–discovery, problem-based, inquiry-based and e-learning.

All data above revealed that effective teaching of research methods which should lead to scholarly research output by students in this institution is negatively affected by multiple factors. They are part-time teaching, lack of motivation to teach, lack of professional training to teach; use of outmoded teaching methods like lecturing and demonstration; the failure to use the available instructional media like handouts, online journals, electronic databases and computer software, interruption by other college activities like coursework tests, projects, field trips, and meetings; students' low academic background and motivation to learn.

The researcher observes that each of the above issues partly influences effective teaching of research methods at the institution. The need for part-time or adjunct teaching in educational institutions is still inconclusive among various studies. While it has proved viable because it is flexible, caters for student-increase, and brings real-world vocational experience into the

institutions environment, it is also professionally ineffective because lecturers do not choose and teach the courses they prefer but what is left over; fail to teach and assess students in time; and are never fully committed to their work which degrades the integrity of the teaching profession (Cassandra 2013; Ella 2013). This implies that much as it is administratively viable, it is not professionally effective. Yet resolving this problem can create a dilemma at this institution: can the institution economically afford employing full-time lecturers only and avert ineffective teaching by adjunct lecturers or keep them on board for administrative convenience? In the meantime it remains one of the organisational factors affecting students' research output at this institution.

Similarly, lack of professional training as already pointed out by Ketchum et al (2008, Zuzovsky (2003), Kumar (2011) and Akinfe E, et al (2012) prevents teachers from providing scholarly instruction. This remains a dilemma: can the college access already professionally trained lecturers in pedagogy or economically afford upgrading its existing teaching force? Much as attempts were made in 2010 through Uganda Association of Private Vocational Institutions (UGAPRIVI) to train such lecturers in pedagogy under the SESEMAT programme, these were positive steps in the right direction but much more needs to be done (Munabi, Tukacungurwa, Ssebbale and Basiime (September 2012). This too remains a formidable challenge to effective teaching in the college ultimately affecting students' research output.

The lecture method too is discredited as encouraging passive learning (Raj 2014, Silvestri 2014 and Kariuki et al 2013) as already seen. This too is a formidable challenge to effective teaching. Much as it is ideally proposed by Gitterman (2004) that higher educational institutions should change from pure pedagogy meant for teaching children to interactive andragogy meant for adults by combining both lecture and learner-centred methods

exposing all students to a well-balanced educational atmosphere, is it affordable by this institution given the circumstances where even the existing staff are not trained in pedagogy?

Furthermore, failure to utilize appropriate instructional materials undermines effective teaching of any discipline because the teacher cannot clarify, establish, correlate and coordinate accurate concepts to make learning more concrete, effective, interesting, inspirational, meaningful and vivid (Aggarwal 1995). It makes such a teacher appear to teach with one arm tied behind, like a farmer trying to plough without a hoe (Coombs 1995).

In addition there are environmental interruptions in form of other college activities like coursework tests, projects, field trips, meetings, special events, timetable adjustments which consume much of the teaching time making instructional time less productive (Leonard 2001. This observation reflects studies by Boyer (1983), Gilman and Knoll (1984), Goodlad (1984) which reveal that about 60% of a typical high school day may be consumed by non-instructional events, while studies at Michigan State University reveal that a teacher can also lose 27% - 40% of school time daily through non-instructional activities. They studies imply that environmental interruptions affect effective teaching of any discipline, and in this also explains why teaching research methods is ineffective at this institution. Much as Estes (2014) recommends that they can be mitigated through effective time management by the teacher planning, organizing and scheduling teaching time to be more productive at work, is it feasible by part-time lecturers who already have limited time to teach in the college? therefore it remains a potential problem affecting effective teaching and ultimately students' research output.

The above discussion shows that effective teaching of research methods at this institution in Kabale municipality was affected by both intrinsic and extrinsic organisational factors. Intrinsic factors include part-time teaching, lack of professional training for the lecturers, use of the lecture method and failure to integrate use of ICT in teaching. The extrinsic factors include interruptions from other college activities. The researcher observes that these findings are consistent with the Systems Theory which underpins this study. It states that the functioning of a subsystem is influenced invariably by another and eventually the whole, and that the functioning of an open system is influenced by environmental factors (M.cAuley, et al 2007).

5.5.2 Objective Two: To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality

The findings indicated that Supervision has a moderate positive relationship with Students' Research Outputs. They were substantiated by more data from interviewing the lecturers, Academic Registrar and Human Resource Manager and from documentary review.

The lecturers (table 12) revealed that as part-time staff they have limited time to meet students and know them well; there are no research supervision guidelines to enable students do research by themselves which forces students to copy other people's research and even hire lecturers to do research for them; such work has different formats, typing errors, wrongly stated problems, incomplete objectives and research questions, incorrect grammatical construction and is never completed in time; research supervision is often interrupted by other college activities such as field tours, project work assessment, coursework tests and other external influences.

The Academic Registrar (table 13) too concurred with the lecturers above that there are no research supervision guidelines to enable students to select research topics, write research proposals and reports, and present them in recommended formats.

The Human Resource Manager (table 14) added that although the supervisors are monitored to ensure effective research supervision, periodical reports on research progress reveal that they give little attention to the students.

Meanwhile the documentary review (table 16) disclosed widespread plagiarism, technical and typing mistakes cited by moderators who recommended that the college should base research supervision on the APA style, appoint trained and experienced, monitor and evaluate the supervision of research on result-oriented basis. These remarks indicated that there is inadequate support to the students' research work, but supervisors play a dominant role in getting students write research proposals and reports.

The researcher observes that the above findings indicate potential hindrances to effective research supervision which can ultimately affect students' research output. The first being lecturers' limited personal and official interactivity with the students by failing to know their names due to the limited time to meet them. The researcher observes that much as supervisors are expected to play pastoral roles of mentoring their research students even by taking keen interest into their personal careers (Otago (2004), Oxford (2008), Exeter (2013) and Aston (2014) universities, how possible is it at ACC Kabale where part-time lecturers have very limited contact time with students? It implies that they are unable to provide clear intellectual leadership through advice, guidance and support to students in all aspects of their researches. This partly explains why supervision in this study has a moderate positive relationship with students' research outputs. It is associated with the weaknesses of adjunct

teaching noted above indicating that as part-time lecturers have less time to teach, they also have limited time to supervise research. It is therefore recommended that the College should establish the expected minimum staffing structure of 50% full time lecturers by the National Council for Higher Education (2005) who in turn will have more contact time with students in research supervision.

Furthermore, lack of guidelines for research supervision was observed as negatively affecting students' work because they cannot easily identify research problems, review literature, choose appropriate research design, prepare instruments and analyse data. The researcher observes that much as this was a quality control issue, it was a supervision issue as well. It prevents supervisors from enabling students to carry out research more independently and autonomously but rely on their supervisors. Therefore as recommended by MacKoeg (2006), the College should establish a quality assurance policy framework stipulating guidelines for research supervision.

Finally the issue of widespread plagiarism cited by moderators indicated external influence through copying or paraphrasing of other people's work or ideas into the researcher's work without full acknowledgement. It is an ethical problem in form of verbatim quotation, paraphrasing, cutting and pasting from the internet, collusion and inaccurate citation which undermines the integrity of students' scholarly work (University of Oxford, n.d). It is recommended that the institution should establish a code of good practice which supervisors should ensure that it is followed by research students.

The above discussion revealed that the organisational factors affecting effective research supervision in the institution were lack of adequate contact time between the supervisors and students, lack of research guidelines, and external influences causing plagiarism.

5.5.3 Objective Three: To investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality

The findings got indicate that quality control mechanisms have a moderate positive relationship with students' research outputs. They were substantiated with more data through interviewing the lecturers, Academic Registrar, Human Resource Manager and Librarian (tables 12 – 15) and from the documentary review (table 16).

The Lecturers revealed that although the institution has a research marking-guide, there is none from MUBS and UBTEB because marking is done externally; they are not aware whether students' research is ever moderated; students do not use any computer packages in data analysis nor any computer facilities for typesetting the work because both are done by others outside the institution; they have negative attitudes towards the course but are interested in facebook mainly.

The Academic Registrar also pointed out that students' research work is not moderated; they do not utilize the available internet services, computer software such as the SPSS for data analysis and computer typing services in their work; neither is there any formal evaluation of the research course nor any overall guide for academic work in the institution.

The Human Resource Manager added that there no guidelines for quality control regarding students' work, but each course has a compulsory computer training unit.

The Librarian revealed that although the institution has quality control guidelines; electronic devices such as computers, scanners, micro-films, photocopiers, CD-ROMs, audio-visual tapes, published research materials and online resources such as textbooks and catalogues for use by the lectures in handling students' research work, they are used once in a while.

Finally data from the documentary review revealed that although the institution is technically advanced with an e-mailing system for dissemination of handouts; group mails for the administration and staff communication; facebook and twitter connected to institution's website; wireless internet for staff to improve teaching; online library for accessing other databases and the Accounts Programme, these facilities are not utilized in research.

The researcher observed that these were intrinsic and extrinsic quality control mechanisms affecting students' research output in the College. The intrinsic were lack of moderating students' research output before marks are published, using ICT facilities in students' research, following the research format, and use of wrong research methods. The extrinsic were lack of external marking guides and the external influences in writing and typesetting work for the students.

The failure to moderate students' research output before marks are published, students not utilising ICT facilities in their research, following the research format and using wrong research methods indicated lack of basic internal quality control for research in the College. Yet the criteria for a standard scholarly research is whether the study has internal and external validity, is based on reliable sources of data, uses appropriate analytical methods which are meaningful in practical and statistical terms and has been completed in time (Mahmood, 2011). Compared to Otago University (2004), Oxford University (2008) and Makerere University (2007), there are quality assurance frameworks being followed to produce scholarly acceptable research. Therefore lack of such frameworks at the selected institution undermines public confidence in its academic programmes and qualifications (Okebukola 2009). This partly explains why the findings got indicated that quality control mechanisms had a moderate positive relationship with students' research outputs.

Finally the responses revealed that there were external influences in writing and typesetting work for the students. The researcher observes that much as it is allowed to refer students to other external sources of information and resource persons like at the university of South Africa (Lessing & Schulze 2002), it is the duty of the supervisor to guide the student in ensuring that issues of ethics and standards, and the legal and regulatory requirements that apply to the particular area of work are addressed (Canadian Psychological Association 2009). Therefore external influences in writing and typing students' research at the selected tertiary institution is a breach of such ethical standards in research and hereby identified as one of the organisational factors affecting students' research output.

Therefore, the above responses revealed that the organisational factors related to quality control affecting students' research out at this institution were lack of Quality Assurance Policy Framework and the external influences in writing and typing students' research.

5.6 Conclusions

The study made the following conclusions:

5.6.1 To establish the effect of teaching on students' research output at the selected tertiary institution in Kabale municipality

The study concluded teaching research methods had a moderate effect on students' research output and therefore if the modern student-centred methods are applied, students' research outputs at the selected tertiary institution will improve also.

5.6.2 To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality

The study concluded that the teacher-centred research supervision style had a moderate effect on students' research output and therefore if the modern student-centred supervision

style is applied, the students' research outputs at the selected tertiary institution will also improve.

5.6.3 To investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality

The study concluded that lack of basic quality control mechanisms affects students' research output and if they are established, students' research outputs will also improve.

5.7 Recommendations

The study made the following recommendations in relation to findings and conclusions:

5.7.1 To establish the effect of teaching research methods on students' research output at the selected tertiary institution in Kabale municipality

The institution should integrate part-time teaching into the recommended rage of 20% - 50% by the NCHE and improve their terms and conditions of service. Secondly, the college should embark on a unique staff development programme geared to professional training of lecturers as instructors who can facilitate students to do research by themselves. Thirdly, the institution should shift from pure pedagogy in which lecturers control instruction to interactive andragogy by combining both lecture and learner centred methods, particularly hands-on teaching. Fourthly, the Institution should encourage lecturers and students to apply the available ICT facilities while teaching research methods to make the teaching of this discipline more effective and ultimately improve students' research output. This requires establishing an ICT Policy integrating ICT into the teaching-learning process as a whole.

5.7.2 To find out the effect of supervision on students' research output at the selected tertiary institution in Kabale municipality

The institution should train supervisors in various supervision styles. Secondly, supervisors should gradually shift from supervisor-centred to student-centred supervision styles. Thirdly,

the Institution Administration should monitor regularly the way students are supervised in research.

5.7.3 To investigate the effect of quality control mechanisms on students' research output at the selected tertiary institution in Kabale municipality

In view of the above discussion it was recommended that the Institution should establish a comprehensive quality assurance policy framework pointing out both internal and external quality control mechanisms for research as similar institutions in the country have done.

5.8 Limitations of the study

Although this research was carefully prepared, it had some short comings. The following were the study limitations:

5.8.1 First of all, the research was conducted in only one institution. Other institutions like the Uganda College of Commerce and the National Teachers' Institution in the same municipality were not at all involved in the study mostly due to cost implications.

5.8.2 Secondly, this study was targeted at selected tertiary institution in Kabale municipality only because it is where the problem was identified. Yet other high education institutions like Kabale University, Bishop Barham University College, Kampala International University and Uganda Martyrs' University branches were not considered. This provides room for further study.

5.9 Contributions of the study

A number of contributions were made through this study to the body of knowledge in the field of academic research. Theoretically the study summarized the teaching, supervision and quality control mechanism theories and its proponents, and also academic research and its proponents, and provided linkage, and influence as interconnected and interrelated. Conceptually all the dimensions of the dependent variable and independent variables were

adapted from the scholars in Chapter one, indicating that the study laboured to link related concepts for academic research.

It is well documented that the purpose of higher education in all countries is produce high-caliber human resource to foster socio-economic development. This is achieved through the three-fold function of a higher education institution, viz. teaching, research and community service. Consequently a lot of research has been done in the two functions of teaching and community service but hardly has any research been done on research itself. This is the academic area and practice in which this study has made the following contributions:

1. That although research and teaching are mandatory in higher education and expected to go hand-in-hand by enriching each other, the researches function is being relegated in preference for theoretical teaching.
2. That the nature of teaching is no longer based on research nor is it invigorating research but actually eroding it.
3. That the quality of students' research especially in tertiary educational institutions is losing its quality due to widespread plagiarism.
4. That tertiary educational institutions have a long way to go in establishing quality assurance policy frameworks which should set the parameters of internal quality control mechanisms for academic research.
5. That this study will provoke policy changes in academic and Human Resource management areas especially in tertiary institutions interested relying on adjunct faculty.
6. That the teaching resource should be called facilitators but no longer lecturers because lecturing has been discredited as mode of delivery.

5.10 Further Research should be done on

The study concentrated on teaching, supervision and quality control mechanisms as organisational factors affecting students' research output. However, in the course of the study, the following variables were also identified and worth investigating in future:

1. The effects of students' socio-economic background on research output.

2. The effects of external influences on students' research output.

REFERENCES

Aggarwal (1995). *Essentials of educational technology: teaching learning innovations in education.* New Delhi: Vikas Publishing House PVT Ltd.

Aguado (n.d). *Teaching Research Methods: Learning by Doing.* University Of North Alabama

Akinfe, Olofinniyi and Fashiku (2012). *Teachers' Quality as correlates of students' academic performance in Biology in senior secondary schools of Ondo State, Nigeria.* Volume 1, Issue 6, pp 108-114; October 2012. http://www.onlineresearchjournals.org/IJER

Alum (1995). *A study of the factors affecting research output at Makerere University*. Unpublished M.A. Dissertation. Makerere University.

Amin, E. M. (2004). *Foundations of Statistical Inferences for Social Science Research (3rd Edition),* Makerere University Printing press, Kampala, Uganda.

Amin, E.M. (2005). *Social science research: conception, methodology & analysis.* Kampala: Makerere University Press.

Anderson, et al. (1994). *Determinants of success in university introductory economics courses.* Journal of Economic Education, (spring), 25

Bongyeirwe (2002). Bongyeirwe, E., (2002). *Factors affecting research activities at Mbarara University of Science and Technology (MUST).* Unpublished M.A. Dissertation. Mbarara University of Science and Technology.

Canadian Psychological Association (2009): *Ethical Guidelines For Supervision In Psychology: Teaching, Research, Practice, And Administration.*

CIMA, E. (2011). *Challenges facing ICT integration in Kenyan schools* http://omoso-cima.blogspot.com

Coombs P.H (1985). *The world crisis in education: the view from the eighties. New York:* Oxford press

Craig T. (2010) & Kyriacou, C. (Compilers 1996) & Thaine, Craig (2010). What is effective teaching? A look at the variables that contribute to effective teaching in the classroom from primary, secondary and further education.

de Noort, R. V. (2013). "Code of good practice - supervision of postgraduate research students." *TQA Manual - Introduction and Contents*. University of Exeter

Desey, (2003). "The advantages and disadvantages of doing documentary research."

Education for National Integration and Development: report of the education policy review commission. Kampala: Ministry of education and sports.

Eikermann, D.R. (2012). *Sixteen qualities of a good teacher*.

Felder, Prince, and Bucknell (2006). *Inductive Teaching and Learning Methods: Definitions, Comparisons, and Research Bases.*

Gitterman (2004). *Interactive Andragogy: Principles, Methods, and Skills*

Government White Paper on implementation of the recommendations of the report of the education policy review commission entitled "Education for national integration and development" (1992, April). Kampala: Ministry of education and sports.

Gupta, C.B. (1998). *Principles and practice of management.* 11th ed. Delhi: Mayoor Paperbacks.

Ketchum, D & Queen, J. (2008). *Factors affecting effective teaching*. http://www.ehow.com

Kirshenblatt-Gimblett, B. (2006). Part 1, "What Is Research Design? The Context of Design." *Performance Studies Methods Course syllabus.* New York University, Spring.

Koenig (n.d). '*Effective teaching in higher education'*

Kotelnikov, V. (n.d). *Thinking outside the box.*

Koul, L. (1997). *Methodology of educational research*. 3rd ed. New Delhi: VIKAS Publishing House PVT Ltd.

Krejce, R.V & Morgan, D.W. (1970). *Determining sample size for research activities: Educational and Psychological Measurement*, 30. State: Publisher.

Lessing & Schulze (2002). *Postgraduate supervision and academic support: students' perceptions.*

London Deanery (2013). *What is supervision?* http://www.faculty.londondeanery.ac.uk/e-learning/s

M.cAuley, et al (2007). *Organisation Theory: challenges and perspectives*. Harlow: Pearson Education Limited.

MacKoeg (2006). *Supervising undergraduate research using online and peer supervision.* Oscail, Dublin City University, Ireland.

Mamdani. *"The importance of research in a university."* Think Africa Press. Friday, May.

Mahmood, S. T. (2011). "Factors Affecting the Quality of Research in Education: Student's perceptions". *Journal of education and practice*. Vol. 2, No. 11 & 12; p.1.

Makerere University (2007). *Quality Assurance Policy Framework.*

Mamdani, M. (2013). *The importance of research in a University*. Think Africa Press

McAuley, J. et al. (2007). *Organisation Theory: challenges and perspectives*. Harlow: Pearson Education Limited.

Meador, D. (2013). Ten qualities of an effective teacher. http://www.about.com/snf.htm?u=http://teaching.about.com/od/pd/a/Qualities-Of-An-Effective-Teacher.htm%3Frd%3D1

Micheletti, G. (2010). *Re-envisioning Paulo Freire's "Banking concept of Education"*

Mollman, S. (2013). *Qualities of effective teaching*. The University of Northern Iowa http://www.ehow.com/info_7889288_qualities-effective-teaching.html#ixzz2iD4rXLVI

Mugo F. W. (June 9, 2002). *"Sampling in research."* http://trochim.human.cornell.edu/tutorial/mugo/tutorial.htm

Mulira (2004) *Integration of ICT in organisations: Challenges and best practice recommendations based on the experience of Makerere University and other organizations Presented to Conference on "Universities: Taking a leading role in ICT enabled human development", 6 – 8 September 2004, Kampala, Uganda.*

National Council for Higher Education (2005). *Statutory Instruments 2005 No. 85. The Universities and Other Tertiary Institutions (Institutional Standards) Regulations, 2005.* Kampala: Ministry of Education and Sports.

National Council for Higher Education (2007). *Statutory Instruments. 2007 No. 62. The Universities and Other Tertiary Institutions (Equating of Degrees, Diplomas and Certificates) Regulation Regulations, 2007.* Kampala: Ministry of Education and Sports.

National Council for Higher Education (2008). *Quality assurance framework for universities and the licensing procedure for higher education institutions.* Kampala: Ministry of Education and Sports.

National Council for Higher Education (2006). *Quality assurance framework for Uganda universities.* Kampala: Ministry of Education and Sports.

National Council for Higher Education (2014). *Quality assurance framework for universities and the licensing process for higher education institutions.* Kampala. Ministry of Education and Sports.

Ndidde, J. et al (2007). *PanAf project/Observatory/panaf-edu/Makerere University*.

Neuman, W. L. (2007). *Basics of social research: qualitative and quantitative approaches. 2Ed. Pearson International Edition.* New York: Allyn and Bacon.

Okebukola, P. (2009). "*African higher education and quality assurance".* Commission For Higher Education. Nigeria. Oxford University (n.a, n.d). "Plagiarism". http://www.admin.ox.ac.uk/epsc/plagiarism/infograds.shtml

Raj, S. (2014). *Advantages & disadvantages of classroom lecture* http://www.ehow.com

Rice, J. K. (2010). *"The Impact of teacher experience: examining the evidence and policy implications."*

Sharma, R.A. (2000). *Fundamentals of educational research*. Ed. 2000. New Agarwal Offset Printing Press. Meerut. India.

Schäffner, C. (2014). *Formalising Supervision – A step towards better quality*. Aston University, Birmingham, (2014):

Sharma (2000). Fundamentals of Educational Research. Meerut: International Publishing House.

Silvestri, K. (2014). *"Benefits of teacher-centered learning."* http://www.ehow.com

Supervisory Styles Overview & Research Australian National University http://www.anu.edu.au (2013)

The National Council for Accreditation of Teacher Education (NCATE 2010 – 2013). *What makes a teacher effective? What Research Says About Teacher Preparation.*

Tusubira, F. et al (2001). *"ICT Implementation Challenges and Strategies for Enterprises in Africa."* Directorate for ICT Support, Makerere University.

Uganda Management Institute Higher Degrees Department. (2011). *Guidelines on proposal and dissertation writing at Uganda Management Institute.*

Ukessays (n.a, n.d). *Traditional versus modern methods of effective teaching in Nigeria* http://www.ukessays.com

Otago postgraduate students. (2004). "*Perspectives on quality supervision."* http://www.otago.ac.nz

University of Oxford Humanities Division (2008). *"Code of practice on supervision of graduate research students."*

Victoria University, Melbourne Australia (2013). *Research Supervision.* CRICOS Provider No.00124K (Melbourne) and CRICOS Provider No. 02475D (Sydney).

Wadesango, N. et al. (2011). Postgraduate students' experiences with research supervisors. *Walter Sisulu University, Centre for Learning and Teaching Development, East London Campus, Republic of South Africa.*

Zeiger, S. (2013). *"Approaches & methods in classroom teaching."* http://www.ehow.com

Zuzovsky, R. (2003). *Teachers' qualifications and their impact on student achievement: findings from TIMSS 2003 data for Israel*. Center for Science and Technology Education, Tel Aviv University, Tel Aviv, Israel.

APPENDIX A: RESEARCH INSTRUMENTS

Appendix A1: Questionnaire for students

Uganda Management Institute, Kampala

A study about organisational factors affecting students' research output

Dear ……

I am carrying out a research about organisational factors affecting students' research output at your institution in Kabale Municipality. I request you to provide information about this study by responding to the items below. This is confidential information to be used for improving students' academic standards in research. Therefore do not indicate your name at all. Thank you.

REV. J.A. SERUGO

RESEARCHER

INSTRUCTIONS

As a student of research methods in this Institution, please respond to each of the following items giving feedback regarding the progress being made. Tick only one of the multiple responses provides according to the scale provided where SD (Strongly Disagree) = 1; D (Disagree) = 2; N (Neutral) = 3; A (Agree) = 4; and SA (Strongly Agree) = 5.

SECTION A: Teaching-related factors

S/N	Item	SDA	DA	N	A	SA
1	I have been taught research methods effectively					
2	The lecturer is competent in teaching research methods					
3	Teaching time for research methods is adequate					
4	The mode of teaching research methods encourages me					

	to do research work by myself					
5	Teaching research methods is mainly through lecturing					
6	Lecturing alone is sufficient to enable students do their research work					
7	New learning methods like self-discovery, problem-based, inquiry-based & e-learning are also encouraged					

Section B: Supervision-related factors

S/N	Item	SDA	DA	N	A	SA
8	Students are provided with a set of guidelines and procedures for their research work					
9	Research guidelines in the institution enable students do their research work					
10	In supervision, students are guided directly in their research work					
11	In supervision, most students conduct research on our own and receive assistance from supervisors on request					
12	Most students get help from outside the institution					
13	Help from outside makes students produce research work which is often criticised by supervisors					

Section C: Quality control-related factors

S/N	Item	SDA	DA	N	A	SA
14	Students have access to the institution research marking-guide to help them produce better research work					
15	The research marking guide is reviewed regularly to maintain standards in academic performance					
16	Students' research work is always moderated by					

	experts before results are published					
17	Students utilize internet services in their research work					
18	Students utilize computer software such as the SPSS for research data analysis					
19	Students utilize institution computer services in typing their research proposals and reports					
20	The institution has an overall guidelines for academic work including research work					

Section D: Students' research outputs

S/N	Item	SDA	DA	N	A	SA
21	The guidance from the supervisors enables students to do their research					
22	Students develop research topics					
23	Students do literature review on their own					
24	Students write research proposals and reports					
25	Students use the set guidelines for research writing					
26	Students do their research guided by the research marking guide					
27	Students utilize internet services to select research topics					
28	Students utilize internet services to review literature					
29	Students prepare research instruments by themselves					
30	Students use statistical data analysis software like SPSS to analyze data for their research					
31	Students typeset their own research proposals and reports					

Appendix A2: Interview-Guide for the lecturers of research methods

Uganda Management Institute, Kampala

A study about organisational factors affecting students' research output

Dear ……

I am carrying out a research about organisational factors affecting the quality of students' research output at your institution in Kabale Municipality. I request you to provide information about this study by responding the questions below. This is confidential information to be used for improving students' academic standards in research. Therefore do not indicate your name at all. Thank you.

REV. J.A. SERUGO

RESEARCHER

INSTRUCTIONS

As a member of staff teaching research methods in this Institution, please provide information about ways teaching, supervision and quality control affect students' research output at the institution by responding to the following questions:

Section A: Teaching-related factors

1. On what terms and conditions are you employed in the Institution?
2. In what ways do these terms and conditions affect your ability to teach research methods in this Institution?
3. What are your professional qualifications for teaching research methods in this Institution?
4. For how long have you taught research methods in this Institution?
5. In what ways would up-grading help you teach this course more effectively?

6. What other responsibilities enable you improve teaching research methods in this Institution?
7. What teaching methods do you commonly use?
8. In what ways do these methods help students do research?
9. What new teaching methods are encouraged by the Institution for teaching research methods?
10. What else affects your ability to teach research methods effectively?

Section B: Supervision-related factors

11. In what ways do the terms and conditions of service affect your ability to supervise research students in this Institution?
12. What guidelines do you follow in research supervision?
13. In what ways do these guidelines enable students do research?
14. In what ways do you help students produce better research output?
15. In what ways are students able to conduct research on their own?
16. What assistance do students get from outside the Institution to accomplish their research?
17. In what ways does this external assistance affect students' research output?
18. What else affects your ability to supervise research students effectively?

Section C: Quality control-related factors

19. Does the institution have a marking-guide for marking students' research work?
20. If so, how often is this marking-guide reviewed to maintain academic standards in students' research?
21. How often is students' research work moderated before results are published?
22. What computer packages do students use in interpreting their research data?
23. In what ways do these packages enable student produce scholarly research work?
24. What computer facilities do students use in writing their research work?
25. In what ways do these facilities enable student produce scholarly research work?
26. What else affects students' research work?
27. In what ways is students' research work affected?

Appendix A3: Interview-guide for the Academic Registrar

Uganda Management Institute, Kampala

A study about organisational factors affecting students' research output

Dear ……

I am carrying out a research about organisational factors affecting students' research output at your institution in Kabale municipality. I request you as a member of the administrative staff in this Institution to provide information about this study basing on the questions below. This is confidential information to be used for improving students' academic standards in research. Therefore do not indicate your name at all. Thank you.

REV. J.A. SERUGO

RESEARCHER

QUESTIONS

Section A: Teaching-related factors

1. (a) Does the institution have enough lecturers to teach research methods?
   (b) If not, in what ways does this affect the teaching of research methods?
2. (a) How many lecturers have workplans and course outlines for use in teaching research methods?
   (b) In what ways does lack of workplans and course outlines affect the teaching of research methods?
3. (a) How many lecturers are competent in teaching research methods?
   (b) In what ways does this incompetence affect students' ability to do research?
4. (a) What teaching method is mainly used?
   (b) In what ways does this method affect students' ability in doing research?
5. (a) What new teaching methods for research are lecturers encouraged to apply?
   (b) In what ways do these methods affect students' ability in doing research?

6. (a) Are students are provided course outlines and lecture notes to guide them in research methods?
   (b) If not, in what ways does this affect students' ability to do research work?
7. (a) Is teaching time adequate for research methods?
   (b) If not, in what ways does this affect the quality of students' research work?

Section B: Supervision-related factors

8. (a) Are students are provided research guidelines and procedures?
   (b) If not, in what ways does this affect students' ability to conduct their research?
9. (a) What are the roles of the supervisors in the research process?
   (b) To what extent do the lecturers carry out these roles?
10. (a) Do students get help from outside the institution?
    (b) If so, what quality of work do they produce with outside help?
11. (a) Do students have access to the institution research marking-guide?
    (b) If so, in what ways does this guide help them write their research proposals and reports?
12. How often is the research marking guide reviewed?

Section C: Quality control-related factors

13. Is students' research work moderated by experts before results are published?
14. If so, what are the dominant comments from the moderators?
15. Do students access and utilize internet services in their research work?
16. If not, in what ways does it affect the quality of students' research work?
17. Do students access and utilize computer software such as the SPSS for data analysis?
18. If so, in what ways does this help students in their research work?
19. If not, in what ways does it affect the quality of students' research work?
20. Do students access and utilize institution computer services in typing their research proposals and reports?
21. If not, in what ways does it affect the quality of their research proposals and reports?
22. Is there any formal evaluation of the courses during or after teaching in this institution?
23. If so, what particular comments are made by students regarding research?
24. Does the institution have an overall guide for academic work including research work?
25. What are the specific guidelines regarding the conduct of students' research?

Appendix A4: Interview-guide for the Human Resource Manager

Uganda Management Institute, Kampala

A study about organisational factors affecting students' research output

Dear …….

I am carrying out a research about organisational factors affecting students' research output at your institution in Kabale municipality. I request you to provide information about this study by responding the items below. This is confidential information to be used for improving students' academic standards in research. Therefore do not indicate your name at all. Thank you.

REV. J.A. SERUGO

RESEARCHER

A. Teaching-related factors

1. Does the institution have a policy for staff recruitment?
2. If so, what academic qualifications are required for teaching research methods?
3. What competencies are required for teaching research methods?
4. What are tasks for lecturers in research methods?
5. What other responsibilities are the lecturers in research methods required to carry out?
6. What facilities are the lecturers in research methods expected to use in teaching?
7. What techniques are used to appraise staff performance in teaching research methods?
8. What in-service training opportunities are available for lecturers of research methods?
9. What motivational techniques are given to these lecturers to enable them teach better?
10. What else affects effective teaching of research methods in this institution?

B. Supervision-related factors

11. How many students are allocated to a supervisor on average?
12. On what criteria is the allocation done?
13. In what ways are the supervisors monitored to ensure effective research supervision?

14. In what ways do supervisors report the progress of the students in research supervision?
15. What is commonly reported by the supervisors regarding research supervision?
16. What is commonly reported by the students regarding research supervision?
17. What corrective measures are applied in response to these reports?
18. How much are the research supervisors paid for per student work done?
19. In what ways does this pay affect effective research supervision?
20. What else affects effective research supervision in this Institution?

C. Quality control-related factors

21. Are there guidelines provided to research lecturers from awarding bodies to control the quality of students' work?
22. If not, in what ways does the lack of these guidelines affect the quality of students' research work?
23. What rating scheme is applied in determining the quality of service delivery for the lecturers in this institution?
24. In what ways does this scheme motivate lecturers in handling their students' research work?
25. What rating scheme is applied in determining the quality of students' class attendance in this institution?
26. In what ways does this scheme motivate students in producing better research work?
27. What are the common complaints from lecturers regarding the quality of the students' research output?
28. What are the common complaints from students regarding the way their academic work is handled by the administrative staff?
29. What in-service training opportunities are available for research lecturers in modern computer software for research data analysis?
30. What training opportunities are available for research students in modern computer software for research data analysis?

THANK YOU FOR YOUR CONTRIBUTION

Appendix A5: Interview-guide for the Institution Librarian

Uganda Management Institute, Kampala

A study about organisational factors affecting students' research output

Dear …….

I am carrying out a research about organisational factors affecting students' research output at your institution in Kabale municipality. I request you to provide information about this study by responding the items below. This is confidential information to be used for improving students' academic standards in research only. Therefore do not indicate your name at all. Thank you.

REV. J.A. SERUGO

RESEARCHER

A. Teaching-related factors

1. Does the institution have a policy for staff use of library materials?
2. If so, in what ways do research lecturers utilize this policy in teaching research?
3. What reading materials are available for lecturers to use in teaching research methods?
4. How often do these lecturers utilize these materials when teaching research methods?
5. What electronic materials are available for lecturers to use in teaching research methods?
6. How often do the lecturers utilize these materials when teaching research methods?
7. What online services are available for lecturers to use in teaching research methods?
8. How often do the lecturers utilize these services when teaching research methods?
9. How often does the library receive new information about teaching research methods?
10. What inter-library services are available for lecturers to utilize in teaching research methods?

B. Supervision-related factors

11. What research supervision guidelines are available in the library for use by the lectures?
12. How often do they use these materials in supervising students' research?
13. What research other print materials are available in the library for lecturers to use in supervising students' research?
14. How often do they use these materials when supervising students' research?
15. What electronic devises are available for lecturers to use when supervising students' research?
16. How often do the lecturers use these devices when supervising students in research?
17. What electronic programmes are available in the library for lecturers to use in research supervision?
18. How often do the lecturers use these programmes in research supervision?
19. What online services are available in the library enabling lecturers supervise students' research more effectively?
20. How often do the lecturers use these services in research supervision?

C. Quality control-related factors

21. What quality control guidelines are available in the library for use by the lectures in handling students' research work?
22. How often do they use these guidelines used by the lecturers in students' research?
23. What other published research materials available in the library for lecturers to use in handling students' research work?
24. How often do they use these materials when handling students' research work?
25. What electronic devises are available for lecturers to use when handling students' research work?
26. How often do the lecturers use these devices when handling students' research work?
27. What online services are available in the library enabling lecturers handle students' research work?
28. How often do the lecturers use these services in handling students' research work?
29. What library-use seminars are available for lecturers in research to attend?
30. In what ways do these seminars improve the quality of research in this institution?

APPENDIX B: TABLES

Table 12: Responses from the Lecturers for Research Methods
Section A: Teaching-related factors

Question	Response
1. On what terms and conditions are you employed in the Institution?	Part-time (100%)
2. In what ways do these terms and conditions affect your ability to teach research methods effectively?	Teaching is limited to time-tabled hours only (100%); unable to interact with students outside class time (60%); cannot give students extra help (80%); cannot compensate for interrupted teaching time by other institution activities (100%)
3. What are your professional qualifications for teaching research methods in this Institution?	Graduates (100%) have the basic training to teach research methods effectively.
4. For how long have you taught research methods in this Institution?	One lecturer has taught for 5 years; 4 have taught for less than one year.
5. In what ways would up-grading help you teach this course?	By gaining more knowledge in research education (80%); more skills in doing research at masters level (100%).
6. What other responsibilities enable you improve teaching research methods in this Institution?	None, all are part-time lecturers coming when on time-table only (100%).
7. What teaching methods do you commonly use?	Lecturing only (100%); guided-discussion (60%);
8. In what ways do these methods help students do research?	Students complain that they cannot do research by themselves – especially identifying research problem (60%); literature review (100%); data analysis (100%).
9. What new teaching methods are encouraged by the Institution in teaching research methods?	Hands-on training through project (100%); field tours (40%); internship (60%) meant to give students practical skills and experience.
10. What else affects your ability to teach research methods effectively?	Teaching is often interrupted by many coursework tests (100%), projects (60%), field trips (80%), and meetings (40%)

Section B: Supervision-related factors	
11. In what ways do the terms and conditions of service affect your ability to supervise research students in this Institution?	Limited time to meet students; hard to know students well; often tired after teaching;
12. What guidelines do you follow in research supervision?	No set guidelines for research supervision (100%); only the syllabus is available showing the format of proposal and report writing (80%).
13. In what ways do these guidelines enable students do research?	Students cannot easily identify research problems (60%); review literature (80%); choose appropriate research design (60%); prepare instruments (80%); analyse data analysis (100%).
14. In what ways do you help students to write scholarly research work?	Giving them work by previous students (60%); guiding them in writing research proposals (60%); and research reports (100%)
15. In what ways are students able to conduct research on their own?	No students do research on their own (100%); get help from outside the institution (100%); some lecturers help (40%); copy work from previous students (60%).
16. What assistance do students get from outside the Institution to accomplish their research?	Copy research work already done by others (100%); some work is done for them (40%); seek helpers to guide them to complete their work (60%).
17. In what ways does this external assistance affect students' research output?	Has different formats (100%); typing errors, wrongly stated problems (40%); incomplete objectives and research questions (40%); poor grammar (60%); not completed in time (100%).
18. What else affects your ability to supervise research students effectively?	Interruption by other institution activities e.g field tours (20%), project work assessment (60%), coursework tests (100%); external influence (100%)
Section C: Quality control-related factors	
19. Does the institution have a marking-guide for marking students' research work?	The Institution has a research marking-guide (80%); yes but no marking guides from MUBS & UNEB/UBTEB – marking is done externally (20%).
20. If so, how often is this marking guide reviewed to maintain academic standards in students' research?	Not aware (80%); not at all (20%).
21. How often is students' research work moderated before results are published?	No knowledge about it (60%); not at all (40%).
22. What computer packages do students use in interpreting their research data?	None (100%)

23. In what ways do these packages enable student produce scholarly research work?	Question not answered
24. What computer facilities do students use in writing their research work?	None (100%)
25. In what ways do these facilities enable student produce scholarly research work?	Students do not use them (40%); students are interested in face book mainly (100%); students' work is typed from outside the Institution (60%).
28. What else affects students' research work?	Attraction by outsiders to do research for students 80%; copying work done by others 60%; students' negative attitudes towards the course 60%.
29. In what ways is students' research work affected?	Research format is not followed (40%); full of typing errors (60%); similarity of work by several candidates (100%); delayed submission of proposals and reports (80%); wrong methods used (60%).

Table 13: Responses from the Academic Registrar

Section A: Teaching-related factors

1. (a) Does the institution have enough lecturers to teach research methods?	Yes
(b) If not, in what ways does this affect the teaching of research methods?	-
2. (a) How many of the lecturers have workplans and course outlines for use in teaching research methods?	One
(b) If not, in what ways does lack of workplans and course outlines affect the teaching of research methods?	It leads to failure to complete the syllabus
3. (a) How many lecturers are competent in teaching research methods?	Two
(b) In what ways does this incompetence affect students' ability to do research?	-
4. (a) Are students are provided course outlines and lecture notes to guide them in research methods?	Yes
(b) If not, in what ways does this affect students' ability to do research work?	-
5. (a) Is teaching time adequate for research methods?	Yes
(b) If not, in what ways does this affect the quality of students' research work?	-
6. (a) What teaching method is mainly used?	Lecturing
(b) In what ways does this method affect students' ability in doing research?	Failure to identify research problems & state clear objectives
7. (a) What new teaching methods for research are lecturers encouraged to apply?	Talk & Chalk, Discussion
(b) In what ways do these methods affect students' ability in doing research?	Develop students' competence in doing research

Section B: Supervision-related factors

8. (a) Are students are provided research guidelines and procedures?	Yes
(b) If so, in what ways do these guidelines enable students in conducting their research?	Identifying research topic, state research problem, write research proposals & reports, present research report in recommended format
© If not, in what ways does this affect students' ability to conduct their research?	-
9. (a) Are supervisors instructed on the specific roles to play in supervision?	Yes
(b) To what extent do the lecturers carry out these roles?	70%

10. (a) Do students get help from outside the institution?	Yes
(b) If so, what quality of work do they produce with outside help?	-
11. (a) Do students have access to the institution research marking-guide?	No
(b) If so, in what ways does this guide help them write their research proposals and reports?	-
12. How often is the research marking guide reviewed?	Not done

Section C: Quality control-related factors

13. (a) Is students' research work moderated by experts before results are published?	No
(b) If so, what are the dominant comments from the moderators?	-
14. (a) Do students access and utilize internet services in their research work?	No
(b) If so, in what ways does this help students in their research work?	-
© If not, in what ways does it affect the quality of students' research work?	It leads to poor quality work
15. (a) Do students access and utilize computer software such as the SPSS for data analysis?	No
(b) If so, in what ways does this help students in their research work?	-
(c) If not, in what ways does it affect the quality of students' research work?	Poor data analysis
16. (a) Do students access and utilize institution computer services in typing their research proposals and reports?	Have access but do not use them
(b) If so, in what ways does this affect the quality of their research proposals and reports?	-
© If not, in what ways does it affect the quality of their research proposals and reports?	-
17. (a) Is there any formal evaluation of the research course in this institution?	No
(b) If so, what particular comments are made by students regarding research?	-
18. (a) Does the institution have an overall guide for academic work including research work?	No
(b) What are the specific guidelines regarding the conduct of students' research?	To use Times New Roman font; font size 12; line spacing 1.5; not less than 30 pages; spiral binding

Table 14: Responses from the Human Resource Manager

Section A: Teaching-related factors

Question	Response
1. Does the institution have a policy for staff recruitment?	Yes
2. If so, what academic qualifications are required for teaching research methods?	Minimum of a Bachelors degree in a business-related field; must have passed research with at least B grade and above
3. What competencies are required for teaching research methods?	Research publication
4. What are the tasks for lecturers in research methods?	Conduct lectures, prepare schemes of work, mark and submit results
5. What other responsibilities are the lecturers in research methods required to carry out?	Conduct coursework examinations
6. What facilities are the lecturers in research methods expected to use in teaching?	Administer the attendance of the students
7. What techniques are used to appraise staff performance in teaching research methods?	Employee ranking
8. What in-service training opportunities are available for lecturers of research methods?	Week end and evening courses, sponsored full time courses
9. What motivational techniques are given to these lecturers to enable them teach better?	Recognising the positive, rewarding and celebrating success
10. What else affects effective teaching of research methods in this institution?	Little time for syllabus coverage

Section B: Supervision-related factors

11. How many students are allocated to a supervisor on average?	20
12. On what criteria is the allocation done?	National Council for high education standard
13. In what ways are the supervisors monitored to ensure effective research supervision?	Periodical reports on research progress, interactions with students
14. In what ways do supervisors report the progress of the students in research supervision?	Written reports, practical submissions
15. What is commonly reported by the supervisors regarding research supervision?	Challenges in selecting research topics
16. What is commonly reported by the students regarding research supervision?	Little attention from supervisors

17. What corrective measures are applied in response to these reports?	Meetings
18. How much are the research supervisors paid for per student work done?	The amount depends on the number of students, 40,000 per student
19. In what ways does this pay affect effective research supervision?	Motivates supervisors
20. What else affects effective research supervision in this Institution?	Lack of finance by students

Section C: Quality control-related factors

21. Are there guidelines provided to research lecturers from awarding bodies to control the quality of students' work?	Yes
22. If not, in what ways does the lack of these guidelines affect the quality of students' research work?	-
23. What rating scheme is applied in determining the quality of service delivery for the lecturers in this institution?	Employee rating
24. In what ways does this scheme motivate lecturers in handling their students' research work?	Feel recognised for their performance
25. What rating scheme is applied in determining the quality of students' class attendance in this institution?	Graphic rating scaling
26. In what ways does this scheme motivate students in producing better research work?	They are able to know the quality of their work & generate judgment
27. What are the common complaints from lecturers regarding the quality of the students' research output?	Subject language
28. What are the common complaints from students regarding the way their academic work is handled by the administrative staff?	Delay to allocate them supervisors
29. What in-service training opportunities are available for research lecturers in modern computer software for research data analysis?	Holiday training
30. What training opportunities are available for research students in modern computer software for research data analysis?	Compulsory computer training as a course within

Table 15: Responses from the Librarian

Section A: Teaching-related factors

Question	Response
1. Does the institution have a policy for staff use of library materials?	Yes
2. If so, in what ways do research lecturers utilize this policy in teaching research?	Through borrowing text books for research use; giving students reference books available in the library; consultation of research catalogue
3. What reading materials are available for lecturers to use in teaching research methods?	Text books, research reports / dissertations,
4. How often do these lecturers utilize these materials when teaching research methods?	Periodicals (newspapers), journals and reports
5. What electronic materials are available for lecturers to use in teaching research methods?	Scanned books deposited on the library website; online resources like textbooks and journals
6. How often do the lecturers utilize these materials when teaching research methods?	Regularly during the lending period of research methods
7. What online services are available for lecturers to use in teaching research methods?	Textbooks, journals, periodicals
8. How often do the lecturers utilize these services when teaching research methods?	Regularly
9. How often does the library receive new information about teaching research methods?	Three times in a year
10. What inter-library services are available for lecturers to utilize in teaching research methods?	Inter-library loans; in case the library does not have some teaching materials for research the Librarian borrows from other libraries on behalf of his users / lecturers

Section B: Supervision-related factors

11. What research supervision guidelines are available in the library for use by the lectures?	Research guides on how students can write their proposals / reports; previous research reports; research catalogue
12. How often do they use these materials in supervising students' research?	Frequently during supervision exercises
13. What research other print materials are available in the library for lecturers to use in supervising students' research?	Students' research reports; organisational research; staff research
14. How often do they use these materials when supervising students' research?	Frequently

15. What electronic devises are available for lecturers to use when supervising students' research?	Computers, scanners, micro-films, photocopiers
16. How often do the lecturers use these devices when supervising students in research?	Once a need arises
17. What electronic programmes are available in the library for lecturers to use in research supervision?	Online access, internet, scanning, typing and printing
18. How often do the lecturers use these programmes in research supervision?	When there is work
19. What online services are available in the library enabling lecturers supervise students' research more effectively?	Soft copies of textbooks, online catalogue
20. How often do the lecturers use these services in research supervision?	Mostly during the time of literature review

Section C: Quality control-related factors

21. What quality control guidelines are available in the library for use by the lectures in handling students' research work?	Research catalogue to avoid duplication of topics
22. How often do they use these guidelines used by the lecturers in students' research?	Once in a while
23. What other published research materials available in the library for lecturers to use in handling students' research work?	Social research, scientific research, library research on how users use the library
24. How often do they use these materials when handling students' research work?	Not regularly
25. What electronic devises are available for lecturers to use when handling students' research work?	Computers, scanners, micro-films, photocopiers, CD-ROMs & audio-visual tapes
26. How often do the lecturers use these devices when handling students' research work?	Not regularly
27. What online services are available in the library enabling lecturers handle students' research work?	Online resources (textbooks), online catalogue
28. How often do the lecturers use these services in handling students' research work?	Not regularly.
29. What library-use seminars are available for lecturers in research to attend?	Library users education, library orientation, library story-telling hour, library week display exhibition programmes
30. In what ways do these seminars improve the quality of research in this institution?	It creates current awareness; users learn how to retrieve information for research from the library; it avoids duplication of research

Table 16: Documentary review data

Document , origin, audience & date	Content	Implications
	Section A – Teaching-related Factors	
Minutes of Meeting GC/4/4/2013/April	**Inadequate staffing:** upgrading staff sponsored by the Institution should be bonded; one major challenge is inadequate staffing especially in the faculty of engineering.	Policy and report on staffing
Circular from Principal to all staff, October 18, 2013	**Disciplining staff:** While the semester mission was 'Giving value for money' in respect to students' fees, five lecturers signed the attendance book but refused to teach within the first forty minutes; hence were summoned to the disciplinary committee.	Report on ineffective teaching
Circular from The Principal to all staff, December 21, 2013	**The goal of 'Value for Money':** There has been poor service delivery in the semester due to lack of staff commitment to the profession, sit-down strikes, under-sensitization on projects for the hands-on approach in the curriculum, and failure to use schemes of work and hand-outs in teaching to compensate for the time lost during assessments.	Report on ineffective teaching
Circular from Principal to Technical staff October 18, 2013	**Practical Training:** the 'Hands-on Teaching policy imparting skills to students should be applied by all lecturers and administrators through tailor-made teaching. Only one lecturer completed the training sponsored by the Institution. The rest must do so at their own cost of 50,000/- each and practically make a chair or else face the consequences.	Policy emphasis on effective teaching methods
Circular October 15, 2013	**Study Trips:** are misinterpreted as meant for leisure tour to far places like Kampala. Lecturers should justify the trip by stating the purpose, why those particular locations, and give guidelines for the tours. On return they should submit reports based on the established guidelines detailing what the students went through, what was learnt and the contribution their learning process.	Policy emphasis on effective teaching methods
File Document Research Supervision Report, January 16, 2013	**Teaching of research methods** – candidates could not write the background of the study, state the problem, purpose, objectives, and research questions / hypotheses, scope & significance; could not review literature critically showing information gaps but mere narration; no justification of selected research designs, instruments and methods; etc.; ***Recommendations*** – establish an update research methods syllabus catering	Report on ineffective teaching

	for both qualitative and quantitative knowledge and techniques; adopt a professional research format based on the most recent APA edition to be followed strictly in research teaching, marking and moderation; appoint properly trained and experienced lecturers to teach research methods who have done research before; continuously monitor and evaluate the teaching and supervision of research on result-oriented basis; caution staff and students against plagiarism.	
Minutes of Meeting GC/4/4/2013/April	**Hands-on training** is the main focus enabling students to produce items for sale.	Policy on effective teaching
File Document HRM's Office: Full time lecturer s semester evaluation Sept. – Dec. 2013	**A.** 4 course units only: 27%, 75%, 55%, 74%, 73% = **61%**	Report on ineffective teaching
	B. 4 course units + 1 extra unit: 74%, 68%, 80%, 66%, 76%, 57% = **70%**	
	C. 4 course units + 2 extra units: 60%, 68%,	
	D. 4 course units + 3 extra units: 64%	
Minutes of Meeting MGTB/2013/Oct. Min.3	**Teaching through hands-on method:** Lecturers are not serious with teaching through 'hands-on' method; they sign the book for teaching, but teach theoretically or do not teach at all, have no plans for the projects, no requisitions; new students are not introduced to projects, time for projects limited; hence the need for a three-day training on carrying out projects.	Report on ineffective teaching
File Document Managing Director's Office, December 2013	**Mode of teaching** must change from being theoretical through lecturing to practical through hands-on methods; hence the need for multiple skills through practical training & projects; non-performing staff must be dismissed; study tours should expose staff and students to new teaching and learning experiences.	Policy on effective teaching through hands-on methods
File Document Principal's Office, December 2013	**Staff Performance:** staff performance in the semester was very poor due to the sit-down strikes for non-salary payment inspite of the salary increase; staff failure to submit coursework marks in time inconveniencing students who need to proceed to the next level, upgrade, or find jobs.	Report on ineffective teaching
File Document Curriculum under review (December 2013)	**Students' projects**: ***Monitoring and Evaluation***: to prepare a monitoring and evaluation tool consisting of the Logical Framework, questionnaire, interview-guide and report, for an on-going or completed development intervention in a specific community. ***Strategic planning and management***: to prepare a business strategic plan for an organisation for either production or marketing of a specific product or service within a specified period. ***Research methods:*** to write research proposals, conduct field studies and	Policy and procedures in project work

	write reports. ***Financial Accounting:*** to prepare source documents: receipts, invoices, payment vouchers, cheques, goods received notes, goods delivered notes, debit notes, credit notes. ***Business Economics:*** to draft annual budget for a particular non-profit making organisation; form a Savings and Credit Organization and draft a membership and loan application forms. ***Journalism:*** to gather information, write scripts and edit news and video editing, and present news cast on radio and television.	
File Document Curriculum under review (December 2013)	**Research methods lecturers –** are five, of who four are first-degree graduates, one holds a Diploma in Business Studies; only one is a trained teacher with a BED & Dip. Ed from Makerere University.	Inadequate quality of teaching staff
Section B: Supervision-related Factors		
File Document Research Supervision Report, January 16, 2013	**Research supervision** – a high degree of plagiarism: students did not know what the work was about when asked, could not make corrections, plenty of technical and typing mistakes. ***Recommendation:*** adopt a professional research format based on the most recent APA edition to be followed strictly in research supervision; appoint properly trained and experienced lecturers who have done research before; continuously monitor and evaluate the supervision of research on result-oriented basis.	Report on ineffective research supervision
Minutes of Meeting GC/4/4/2013/April	**Evaluation of staff:** the purpose of staff evaluation is to identify weaknesses to be corrected through training, but not for condemnation.	Policy on staff evaluation
Minutes of Meeting GC/4/4/2013/April	**Hands-on training:** although the main focus enabling students to produce items for sale, the human resource performance levels are still below standard, e.g the Bursar's performance at 34% is unacceptable.	Report on poor staff performance
Circular from Principal to D. Principal Sept. 25, 2013	**Work Plans:** the Deputy Principal should monitor the semester work plan performance; ensure that all listed activities are complied with in time and give feedback reports early enough for corrective action to be done.	Policy on effective supervision
Minutes of Meeting MGTB/2013/Sept. Min.9	All Management Board members should supervise students' night preps.	Policy on effective student supervision
Circular from The Principal to the students, September 25, 2013	**Class attendance and supervised night preps (**Monday to Friday from 8.00 pm to 10.00 pm) are measures to improve academic performance; defaulters are to be disciplined. Non-resident students can do so authorised and registered by the Deputy Principal. Students reporting 30 minutes late for	Policy on effective student supervision in self-study

	lectures are to be denied entrance and treated as dodgers. Students absenting themselves from lectures 3 times a week will be suspended. A student with less than 80% class attendance a month faces severe disciplinary action ranging from denial of exams to suspension and expulsion.	
File Document Human Resource Policy (2012 Edition) to all employees	**Performance Appraisal** for all employees is by the immediate Supervising officers and Director Quality Assurance, against set targets and objectives per Semester and annually to determine their individual performance for additional training, extension of probationary period, promotion prospects or absence of capacity for improvement and termination of services. It is done based on the Result-oriented Management System.	Policy on supervising staff performance
File Document A sample of the field attachment report and guide (2013) for all supervisors and students.	**Supervision of student internships:** focuses on the preliminary section stating the student's particulars, acknowledgements, executive summary / abstract, table of contents, list of figures, and list of acronyms / abbreviations; the main body stating the introduction, description of work carried out, duties and responsibilities assigned and how they are carried out, new knowledge and skills gained, relationship with other staff and supervisor, problems experienced and how handled, conclusions, recommendations, and references; and finally the appendices.	Procedure for effective supervision of student internships
File Document Internship, n.a, n.d	**Internships:** A guide to supervisors how to organise internship supervision contains a questionnaire, assessment form for industrial training, and mark sheet.	Procedure for effective supervision of student internships
File Document 2013	**UBTEB Examination Regulations** are available regarding the conduct and supervision of exams, cautioning supervisors, invigilators and candidates against malpractices and spelling out penalties.	Policy on effective exam supervision
File Document 2013 – 2014	**MUBS Examination Regulations** are available regarding the conduct and supervision of exams, cautioning supervisors, invigilators and candidates against malpractices and spelling out penalties.	Policy on effective examination supervision
File Document HRM's Office: Research Supervision	**Supervision** was only 73% in Feb – June semester due to lack of supervisors; but 100% of in Sept. – Dec. 2013 semester due to availability of the supervisor.	Lack of quality control
Section C: Quality Control-related Factors		
Circular from Principal to	**Pornography:** All forms of pornography such as blue films, and surfing pornographic material in the	Policy emphasis on

Institution Community, Oct. 4, 2013	Institution Computer labs are banned and culprits will be expelled. While students are free to participate in pornography in private places, they are not free do so in Institution premises, but use the internet for study purposes.	quality control
File Document Internship, n.a, n.d	**Internships:** A guide to supervisors how to organise internship supervision contains a questionnaire, assessment form for industrial training, and mark sheet.	Procedure on quality control in internships
File Document Research Form, n.a, n.d	**Research marking guide** is available to be used by supervisors as marking guide; is owned by ACC, but none from MUBS and UBTEB.	Availability of quality control mechanisms
File Document Executive Examinations Secretary Office Feb-May 2012 Semester	**Students' complaints regarding Examination Results** Number of complainants = 82; complaints = 113: missing results = 85%; wrong GPA awarded = 2%; wrong addition of marks = 6%; and wrong Registration Numbers = 4%; wrong exam papers given = 3%.	Report on ineffective quality control in Institution examinations
File Document Sept-Dec. 2012 Semester	**Students' complaints regarding Examination Results** Number of complainants = 126; complaints raised = 176: missing results = 92%; not satisfied with results = 2%; wrong GPA awarded = 1%; wrong file Number = 2%; wrong addition of marks = 2%; and wrong Paper = 1%.	Report on ineffective quality control in Institution examinations
File Document Feb-May 2013 Semester.	**Students' complaints regarding Examination Results** Number of complainants = 126; complaints raised = 176: missing results = 92%; not satisfied with results = 2%; wrong GPA awarded = 1%; wrong file Number = 2%; wrong addition of marks = 2%; and wrong Paper = 1%.	Report on ineffective quality control in Institution examinations
File Document Research Moderation Report, April 3, 2012	**Inappropriate marking guide**: no acknowledgements, purpose, study themes, summary of literature review, separate research methodologies; distinct items in chapters 4 & 5, appendices. **Unprofessional marking**: marks were awarded subjectively in block but not objective analytically; marking is not based on any research format like APA edition defining the appropriate font-size, font-type and line-spacing. **Recommendations:** further training for lecturers especially in proposal and report writing, and research supervision; future recruitment of lecturers should also focus on whether one studied research methods and did a field study too; the current	Report on ineffective quality control in research marking

	marking guide should be reviewed and revised catering for qualitative & analytical research assessment; develop a research moderation tool.	
File Document October 18, 2013 to all Faculty Deans	**Marking Coursework:** Making the first coursework is incomplete and overdue thereby delaying releasing results; hence lecturers should be reminded of their obligations in marking.	Report on ineffective marking of coursework
File Document February 22, 2013	**Marking coursework (Auditing):** No answer items are ticked but marks are given; marks per question are not transferred to the top page, but only 7.5/15 is written.	Report on ineffective marking of coursework
File Document n. d	**Test / Examination setting:** Production Technology III Coursework: wrong setting for N0. 1 as "Give the characteristics, composition and typical uses of the following ferrous materials: pig iron, wrought iron"; inadequate content for questions & 3 set as: Q.2 "What is the fundamental difference of cast iron and steel"; Q.3 as "what do you understand by carbon steels" - no question mark; to be marked out of 20 marks.	Report on ineffective setting of coursework
File Document Nov. 17, 2013	**Examination setting** A Paper set with 7 questions but numbers 1(b), 3(b) and 5(b) is the same question.	Report on ineffective setting of coursework
File Document Human Resource Policy 2008, revised 2012	**Focus**: ***Vision*** – a leading institution in business, technical and vocational training in Africa; ***Mission –*** establishing a competence-based training that equips students with relevant skills for economic growth and employment; ***core-values:*** competence-based training and quality products; integrity based on honesty and ethics; hard work, dedication and achievement of results. ***Staff performance*** to be assessed within the overall Institution performance targets focusing on specific critical factors; agreed key result areas and targets to be published per semester; staff recruitment to focus on job requirements matched with one's qualifications, experience and skills; management and staff to constantly review set targets and performance standards through performance appraisal; agree on areas of success and failure giving reasons, alter set objectives to be consistent with what is achievable with available resources and make corrective actions; ***professional ethics*** all employees should be exemplary in respect to present and potential clients; carry out their professional duties responsibly and with integrity; and conduct business upholding the institution's reputation.	Policy on the quality of staff and their performance

Minutes of Meeting MGTB/2013/Sept. Min.3	In communicating to the Board members, the Chairman stressed the need for semester work plans to be released soon to guide Institution activities.	Policy emphasis on quality control
Minutes of Meeting MGTB/2013/Sept. Min.6	**Hands-on Training** should be done in a third of teaching time; the Institution's Education Information System has been introduced for recording all particulars about the students and to disseminate results.	Policy emphasis on quality control
Minutes of Meeting MGTB/2013/Sept. Min.9	**Study trips** are failing because students are indisciplined, lack of making scholarly reports which have to be marked, and lack of making guides for such reports; the trips should be planned, hand-outs produced and approved by the Institution Management.	Report on quality control not being implemented
Minutes of Meeting MGTB/2013/Sept. Min.12	**Student self-study:** introduce student self-study culture as most of them are not serious but loitering around the Institution premises.	Policy on quality student study
File Document Academic Registrar's Office	**Technical advancements**: e-mailing system for dissemination of handouts; group mails for admin & staff communication; Face Book & Twitter connected to Institution website; wireless internet to be accessed by staff to improve teaching; online library for accessing other databases and the Accounts Programme.	Quality control mechanisms are available but are not used

Table 17: Academic qualifications for teaching in higher education in Uganda

Academic Post	Research Post	Library Post	Qualifications
Teaching Assistant Tutorial Assistant	Research Assistant	Library Assistant	First Degree with a First Class, Upper Second grade and or, Lower Second grade (in special circumstances)
Assistant Lecturer	Research Assistant	Library Assistant	Masters Degree
Lecturer	Research Fellow	Librarian	Masters Degree and should be on track for a PhD Degree; original contribution to knowledge through

			research and publication; a good record of community and academic service.
Senior Lecturer	Senior Research Fellow	Senior Librarian	PhD Degree; original contribution to knowledge through research and publication.
Associate Professor	Associate Research Fellow	Deputy Librarian	PhD Degree; have teaching experience of at least seven years; have published at least one internationally recognised book by a reputable Publishing House; published at least 2 good articles; a good record of community & academic service.
Professor	Research Professor	Chief Librarian	PhD; has a meritorious teaching experience of seven to fifteen years; has published at least two internationally recognised books with a reputable Publishing House; published at least ten articles; possesses a good record of community service.

Source: NCHE Statutory Instruments 2014 No 50 Awarding of Honorary Degrees and Academic Titles

Table 18: Modern methods of teaching and learning

Name	Mode of delivery
Active Learning Exercises using hand-outs	Students solve problems, answer questions, formulate questions of their own, discuss, explain, debate, or brainstorm during class; enables students to read straightforward material much more rapidly than instructors can present it; enables them to cover the difficult material in lectures and activities and still get through the complete course syllabus; learn difficult material and develop skills through practice and feedback, not by being lectured on what they are supposed to know.
Case-study learning	Students analyze case studies of historical or hypothetical situations that involve solving problems to make decisions. They involve different types of challenges such as diagnosing technical problems and formulating solution strategies, making decisions based on technical, economic, social, psychological considerations and ethical dilemmas.
Collaborative learning	The teacher works with the students in smaller groups so that the students are able to interact both with the material and with peers to uncover information.
Cooperative Learning	Teaching allows students to share information and complete goals as a group thereby building organizational skills, leadership skills and social skills. It is used to enable students share knowledge and work together to learn, or in conjunction with a problem-based curriculum allowing students to put their heads together to solve problems.
Discovery-based learning	Students are given a question to answer, a problem to solve, or a set of observations to explain, and then work in a largely self-directed manner to complete their assigned tasks and draw appropriate inferences from the outcomes, "discovering" the desired factual and conceptual knowledge in the process.
Hands-on Training	Enables students not only to hear what tasks need to be

	completed, but gives them the opportunity to perform the task right there and then. In an ideal situation, a trainer is available to work with the trainee to provide guidance rather than leaving the trainee on his own to figure out what needs to be done; provides real life applications that make it easier to understand what is being taught because the people learning can see it first-hand rather than just hear about it in a lecture. Therefore, the skill is more likely to stick with them. For some, this way of learning is much easier than listening to a lecture in a classroom which may learn to the boring side and result in the trainee tuning out. It boasts productivity because the trainee is working while learning. Finally, it boosts the trainees' confidence because they have a trainer available to ask questions of if they are unclear about something. Ideally, that trainer will also provide positive reinforcement when the trainee is doing a good job.
Inquiry-based learning	Students are presented with questions to be answered, problems to be solved, or a set of observations to be explained by formulating good questions, identifying and collecting appropriate evidence, presenting results systematically, analyzing and interpreting results, formulating conclusions, and evaluating the worth and importance of those conclusions.
Just-In-Time Teaching	Combines Web-based technology with active learning methods where students individually complete Web-based assignments just before class begins; the instructor reads through their answers before class and adjusts the lessons accordingly.
Problem-based learning	Students are confronted with open-ended, ill-structured, real-world problems and work in teams to identify learning needs and develop a viable solution, with instructors acting as facilitators rather than primary sources of information.
Project-based learning	Students are given assignments to carry out one or more tasks

	that lead to the production of a final product - a design, a model, a device or a computer simulation.
Teacher-based facilitation	Has very little teacher-centered instruction such as lecture because students are responsible for their own learning, which follows the standards and concepts students are required to learn. Teachers provide students with the concepts they are required to learn and the tools to learn about those concepts, such as websites, books and videos, and then investigate them on their own or in small groups with the teacher watching to keep students on task and answer questions.

Source:

1. BuLLard, L.G, & FeLder, R.M. (n.d pdf). A Student-centered approach to teaching.
2. Dee, D. D. (April 17, 2014). "Definition of hands-on training.
3. Felder, R.M; Prince, J.M; & Bucknell. (2006). University North Carolina State University.
4. Zeiger, S. (2013) "Approaches & methods in classroom teaching"

APPENDIX C: FIGURES

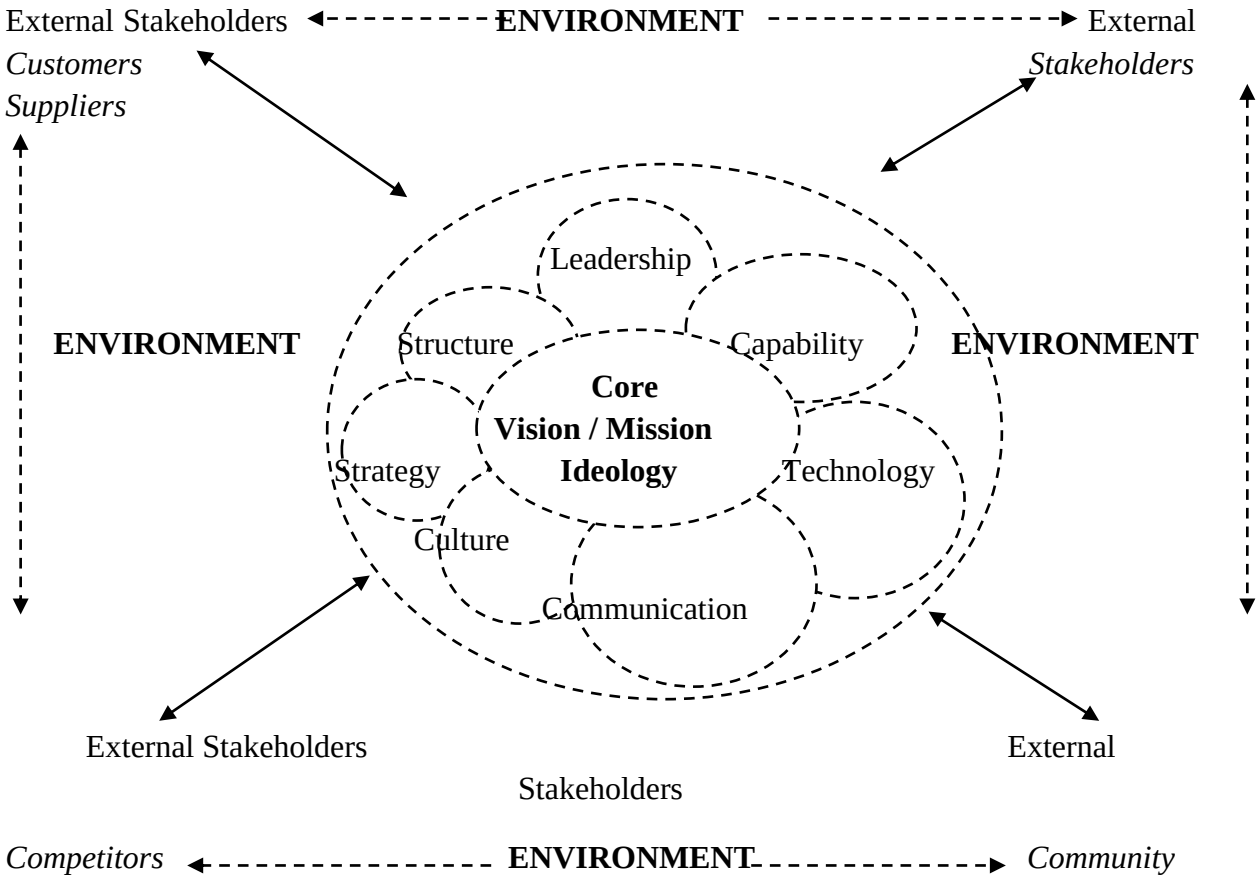

Fig. 2: A Technical view of an organisation as a complex socio-technical system, based on the Systems Theory

Source: Adapted from McAuley, John; Duberley, Joanne; and Johnson Phil. (2007)

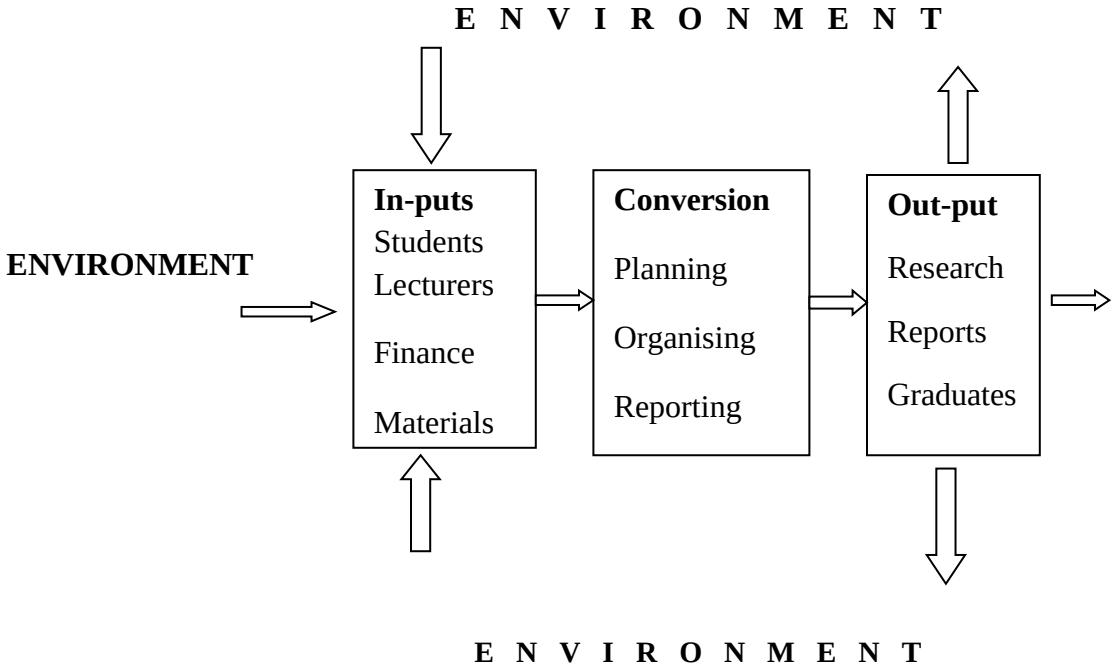

Fig. 3: A simplified view of the structure and functioning of an organisation based on the Systems Theory

Source: Adapted from Robbins, S. (1991: 48), Third Edition

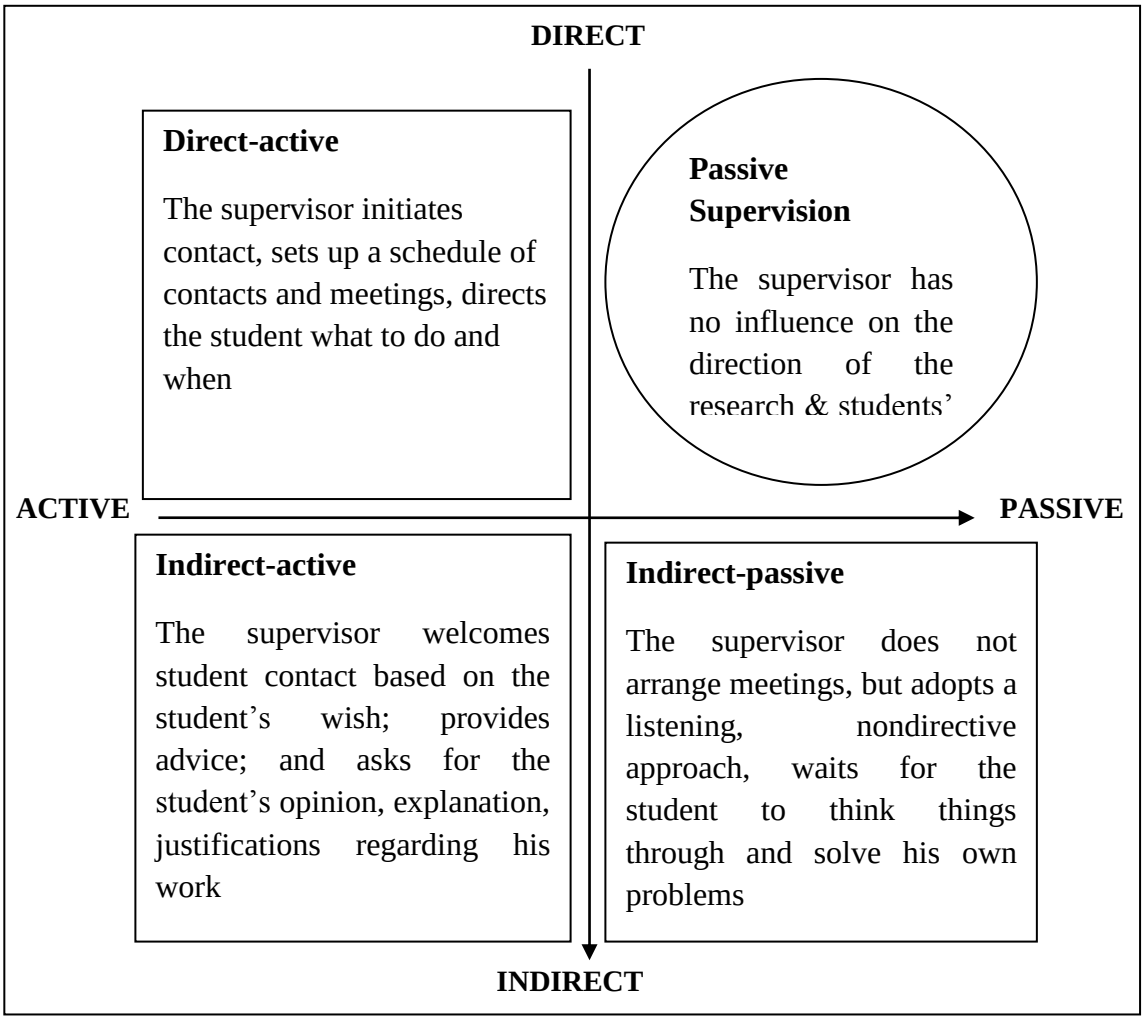

Fig. 4 Research supervision paradigms

Source: Based on Koegh, K.M., (2006)

High Support	**Pastoral Style** **Low structure and high support** Candidate has personal low management skill but takes advantage of all the support facilities that are on offer *The supervisor provides considerable personal care and support but not necessarily in a task-driven, directive capacity*	**Contractual Style** **High structure and high support** Candidate highly motivated and able to take direction and to act on own initiative *The supervisor is able to administer direction and exercises good management skills and interpersonal relationships*
Low Support	**Laissez-faire Style** **Low structure low support** Candidate has limited levels of motivation and management skills Supervisor in non-directive and not committed to high levels of personal interaction *The supervisor may appear uncaring and uninvolved*	**Directorial Style** **High structure and low support** Candidate highly motivated and sees the necessity to take advantage of engaging in high structural activities such as setting objectives, completing and submitting work on time on own initiative without taking advantage of institutional support *The supervisor has a close and regular interactive relationship with the candidate, but avoids non-task*
	Low Structure	High Structure

Fig. 5 Supervision styles

Source: The Australian National University (April 17, 2013)

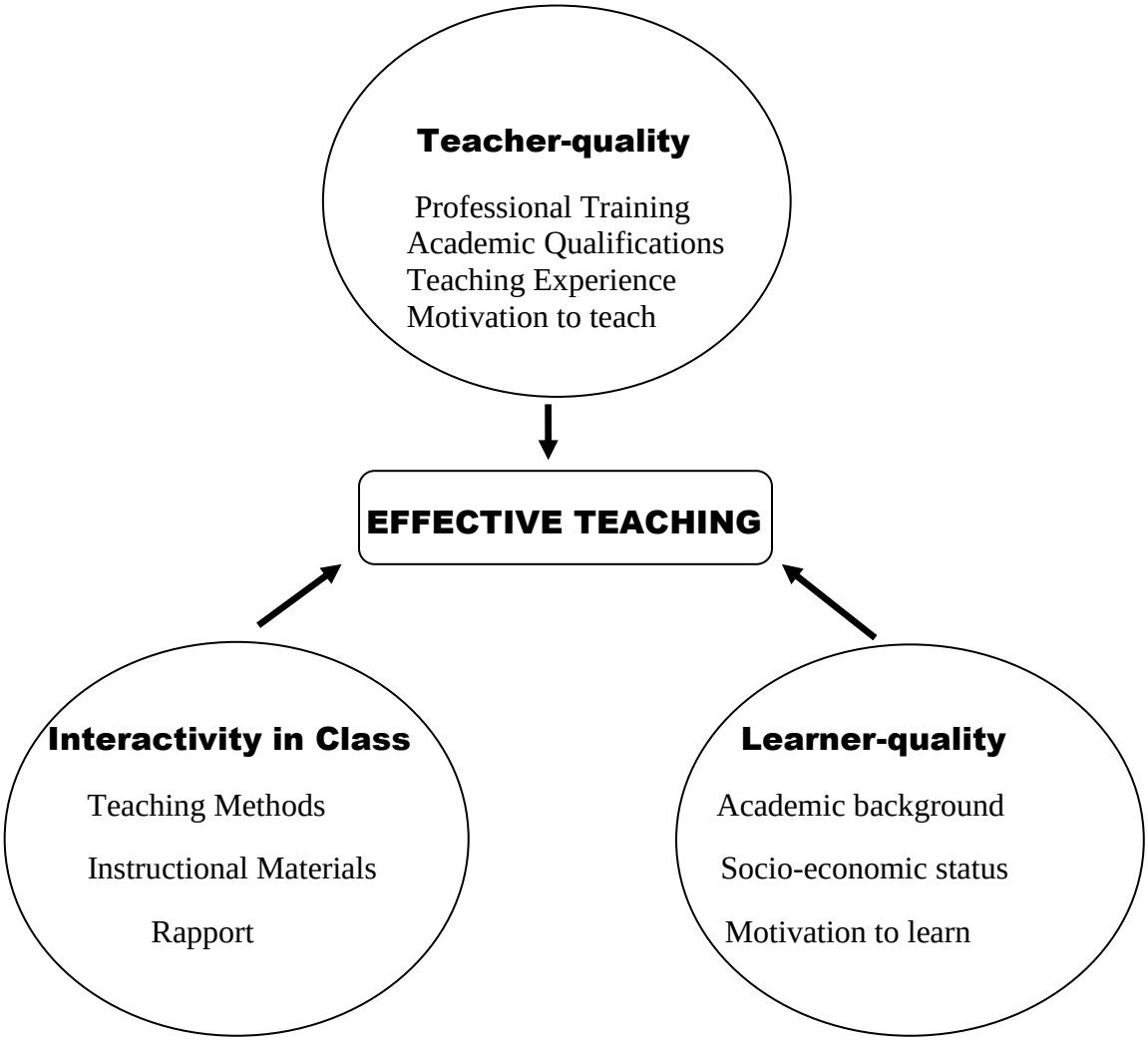

Fig. 6: The Traditional effective teaching paradigm

SOURCE

Ketchum, D. and Queen, J. (2008) - Illustrated

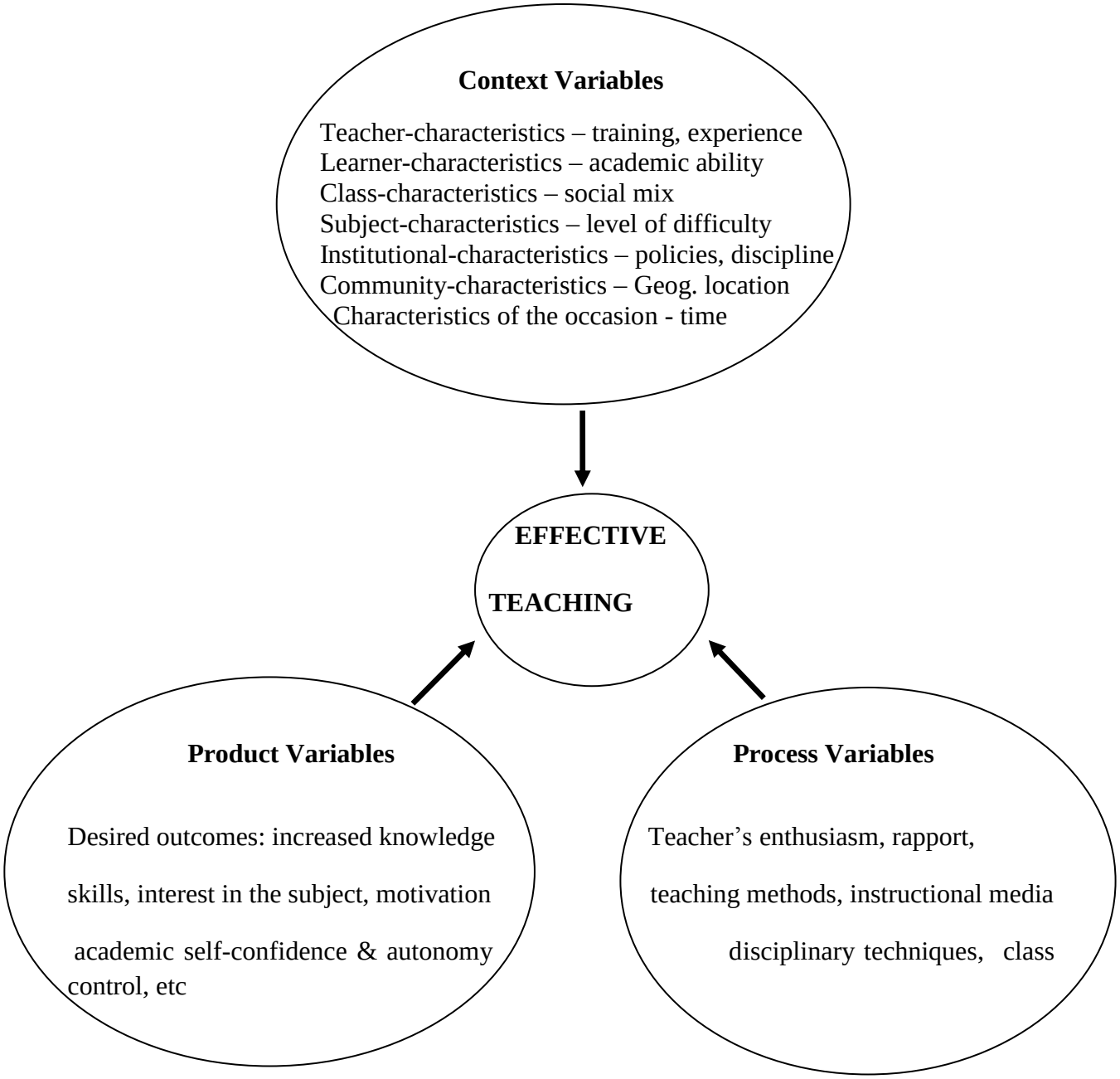

Fig. 7: The Process-oriented Paradigm for effective teaching

Source: Craig 2012 - modified

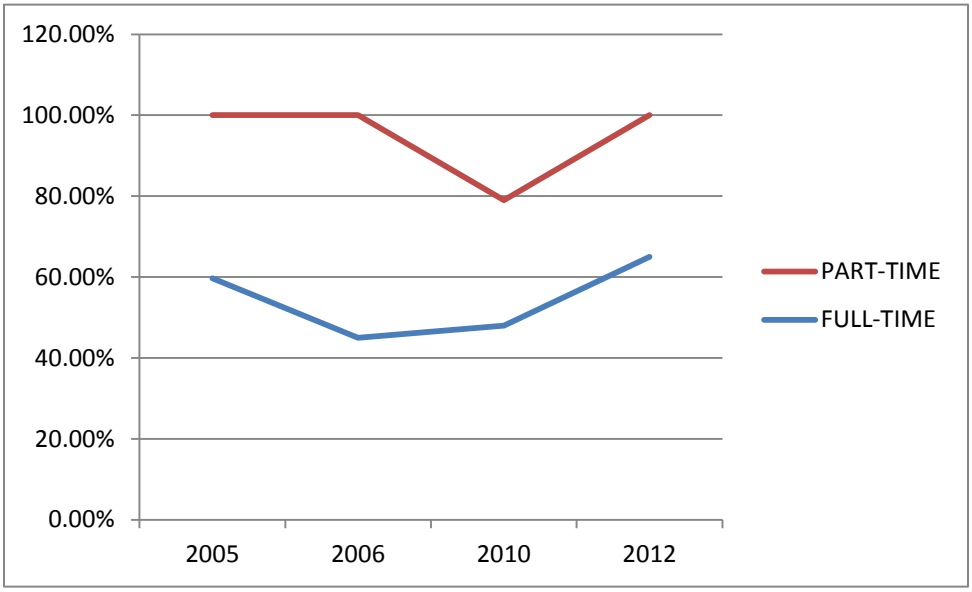

Fig. 8: Academic staff availability in higher education in Uganda 2005 – 2012

Source: NCHE The State of Higher Education Reports 2005, 2006, 2010 & 2012