CHALLENGES FACED BY STUDENT TUTORS IN FORMULATING EFFECTIVE LESSON OBJECTIVES DURING SCHOOL PRACTICE: A CASE OF HEALTH TUTORS' COLLEGE-MULAGO

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A RESEARCH DISSERTATION SUBMITTED TO KYAMBOGO UNIVERSITY GRADUATE SCHOOL IN PARTIAL FULFILLMENT FOR THE REQUIREMENTS OF MASTERS IN VOCATIONAL PEDAGOGY OF KYAMBOGO UNIVERSITY

AUGUST, 2019

DECLARATION

I Ssessanga Hussein declare that this action research dissertation is my original work and that it has never been presented anywhere else for any academic program

Ssessanga Hussein

Sign……. Date……

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Any academic journey is one that comes with ups and downs and as one musician pointed it out "When the going gets tough, the tough get going." It has indeed been a tough but on the other hand, I have personally become a better instructor thanks to MVP program and the entire family that has come kept it together. It has been an honor for me to have interacted with officers of various professional backgrounds from lecturer/mentor to fellow students. My sincere gratitude goes to the entire Cohort Five fellows for all the care and concern that has been accorded to me, in addition to the tolerance that you have shown me and made feel a part of the group despite my humanly shortcomings. I pray that Almighty Allah rewards you with glad tidings at all time of need.

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APPROVAL

This research dissertation titled **"Challenges Faced by Student Tutors in Formulating Effective Lesson Objectives during School Practice: A case of Health Tutors' College-Mulago"** has being written under the supervision of the Principal Supervisor. It is to be submitted to the graduate school of Kyambogo University for final examination after approval.

PRINCIPAL SUPERVISOR

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Signature……. Date……

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LIST OF ACRONYMS

BME: Bachelor of Medical Education

CPD: Continuous Professional Development

FW: Future Workshop

HTC: Health Tutors' College

KyU: Kyambogo University

MVP: Master of Vocational Pedagogy

ABSTRACT

The study was aimed at assessing the challenges student tutors faced in formulation of effective lesson objectives during school practice at HTC-Mulago. Lesson objectives are the means to addressing the course objectives and therefore should be specific and effectively formulated. The study was designed and executed using the principles of action research in which both qualitative and quantitative data collection procedures were employed. Face to face interviews were used during the situation analysis to establish the strengths weakness opportunities and threats regarding the pedagogy programs. The future workshop identified strategies for development of a guiding document on formulation of effective lesson objectives, an intervention that was later implemented on 20 students, ten in each of the pre and post-intervention test.

Evaluation of the intervention was done using quantitative statistical (using the un-paired t-test) analysis of the results from the implementation phase. The result indicated that the performances between the post and pre-intervention tests was significant with a mean score difference 1.35 ($p<0.001$). In the second phase of evaluation, assessment of individual stakeholder's opinions on the use of a guiding document on formulation of effective lesson objectives. At least 85% of the 20 students and all the 5 supervisors agreed that it is needed for utilization during school practice. The challenges student tutors face in development of effective lesson objectives are of a multi-factorial origin comprising of HTC-Mulago as an institution; supervisor related factors and student factors. The study revealed that student tutors can improve on their competence of formulating effective lesson objectives when a guiding document is used.

HTC-Mulago should set up a quality assurance department to enable continuous improvement of training and educational for both tutor students and teaching staff.

CHAPTER ONE: INTRODUCTION

1.0 Introduction

Action research encourages inquiry and reflection, connects theory to practice, and creates links between pre-service and in-service teaching (Kitchen & Stevens, 2005).

Action research is a vital tool for use as a means to address challenges that affect performance of an entity. For this particular project the researcher in collaboration with the stakeholders, ventured into a research journey to identify and resolve issues surrounding health tutors education and training at Health Tutors' College-Mulago.

In teacher education such as one for health tutors or other forms, action research contributes to the improvement in practice through widened and deeper understanding of the trainers practices (Acosta & Goltz, 2014). Furthermore, the lecturers and or supervisors, and the student tutors can generate knowledge that is academic and useful by connecting scientific data, collected from actual practice, to theory (Goodson, 2010). When theoretical assessment of student tutors cannot comprehensively explain the observed outcome, stakeholders then find it imperative to develop their own concepts through action research, thereby enhancing existing knowledge (Schein, 2010).

Furthermore, action research can help health tutor trainers in transforming undesirable historical patterns of school practice into future possibilities of improved performance for both student tutors and the supervisors during school practice and to be specific in the formulation of effective lesson objectives (Chandler & Torbert, 2010). Besides being supportive for transformative learning, action research can also aid in health tutor training by bringing about awareness and reflection on the overall goal of the teaching programs (Schein, 2010). Fadiman (2012) further asserts that health tutor education practitioners should command a basic knowledge of health

tutor education related theories (such as communities of practice and the transformative learning theory), so as to better conceptualize and appreciate the rationale underlying action research.

The background of the study is a highlight in the following sections; background of the study site; historical perspective of health education; and background of the study problem (effective lesson objective development).

1.1 Background of the study

The background of the study is a highlight in the following sections; background of the study site; historical perspective of health education; and background of the study problem (effective lesson objective development).

Background of the study site

Health Tutors' College Mulago (HTC-Mulago) is the only Health Tutor Training Institution under Ministry of Education and Sports overseen by the department of Teacher Instructor Education and Training (TIET). It is affiliated to Makerere University through the College of Education and External Studies (CEES). Located in Mulago hospital complex, HTC Mulago trains tutors in all health related disciplines who upon completion of their training, teach in basic health training Institutions.

The college started in the 1967 with only fourteen (14) students mainly offering diploma in health tutorship in nursing. But, due to the demand in other health disciplines, the college found it necessary to include midwives and other allied health professionals. From 2010, the college also upgraded from diploma in health tutorship to Bachelor's degree courses in the same discipline. Currently, the college offers three programs; namely, Bachelor in Medical Education

(EDM), Post Graduate Diploma in Medical Education (PGDME) and Higher Diploma in Clinical Instruction with an average number of about two hundred (200) tutor students.

The College **Vision** statement is "We aspire to become a reputable training College in Health Tutorship for sustainable socio-economic development."

The **Mission** statement is, "To produce competent Health Tutors with positive attitude that delivers quality health training."

The college has its specific objectives set as; to Plan, design and develop learning resources; to Plan, develop and review of curricula in health training; to teaching students in both class room and clinical/field placements; to recruit, select and develop staff and students that are able to manage health training institutions; to initiate, promote, support and carry out research in health related areas and education; to Guide and counsel both staff and students; to Participate in community activities; and to Evaluate and monitor teaching and learning programs.

The key stakeholders that influence decision making at HTC are: The Governing Council, the Principal, Deputy Principal, and the Academic registrar. In this study, the Governing Council was excluded because majority of its members are not directly involved in the teaching-learning processes.

Knowledge is transferred through classroom lecturing and Problem Based Learning by way of course works and presentations. Skills on the other hand and in particular pedagogical ones are transferred through the use of micro-teaching where individual tutor students are peer critiqued and finally feedback about how they were assessed is given by the lecturers/Tutors.

Student tutors are continuously monitored throughout their period of training to ascertain their ability to pass on clinical knowledge, skills and attitudes.

The College occasionally offers in-service training for Tutors and Lectures for example there has been; Active Teaching and Learning (ATL) training that initially sponsored by Belgium Technical Corporation (BTC). This program has recently been integrated in student learning sessions during the final semester. The use of ATL is further strengthened by Team teaching where senior lecturers co-teach with junior lecturers concurrently in the same lesson.

Safety policy exists and has been further strengthened after the construction of a pedagogy block courtesy of Belgium Technical Corporation (BTC) that eventually provided international policy guidelines on safety. To note a few developments; windows of the new pedagogy block don't have burglar proof bars. Firefighting equipment is in place and regularly serviced, students and staff are periodically engaged in drills on First Aid and firefighting. Finally the security officers are on duty around the clock.

1.1.1 Historical perspective of Health Education

The training of health tutor has a very recent history. Many earlier health workers were trained by fellow professional either in a classroom, or using the bench and bedside approach in a hospital facility (Abel-Smith, 1960).

Up until the mid-nineteenth century, nursing was not an activity, which was thought to demand either skill or training (because doctors would do everything), nor did it command respect. As Florence Nightingale (1844) was to put it, nursing was left to 'those who were too old, too weak, too drunken, too dirty, too stupid or too bad to do anything else (Skretkowicz, 1845). Cleaning and feeding of another person were regarded as domestic tasks performed by servants (Goodrick

& Reay, 2010). From the 1860s onwards, a series of nurses' training schools began to produce fairly large numbers of educated women who were eagerly accepted by hospital authorities whose medical officers, patients and public opinion in general were demanding higher levels of nursing skill on the wards (Buhler-Wilkerson, 2016).

The origin and development of formal teacher education in Africa can be traced to the beginning of Western education in the pre-colonial times (Adelowo, 1988). The various church missions such as the Wesleyan Methodist, the Church Missionary Society, the Baptist, the Church of Scotland (Presbyterian) and the Roman Catholic were not only the pioneers, and were very active between 1842 and 1860, they contributed a great deal to the development of teacher education in pre-colonial Africa such as the Sub-Saharan region (Adelowo, 1988).

Regarding health profession training, the first professionals were not trained by trained health tutors. The first professional African nurses were trained at health facilities by missionaries at the beginning of the twentieth century in South Africa. Later on a nurse professional Henrietta Stockdale established a nursing school in Kimberly South Africa in the 1880s and the training of nurses and midwifery was undertaken by doctors and nurses (Marks, 1994).

In Nigeria, there was no formal training for the treatment of the sick missionaries in the 19th century. The missionaries however, engineered the establishment of dispensaries and mission posts, and helped in the treatment of the sick. The structures later formed the nucleus for the early training schools of nursing and midwifery in Nigeria. The training of nurses and midwives during this period was informal being an apprenticeship-type of training of “do as you are told” approach (Ajayi, 1965).

When Nigeria became a formal colony under the British Administration in 1914, nursing was among the first recognized and accepted professions in the British colony. The immediate benefit was the recognition of the overwhelming need of Nursing and Midwifery Services. Like South Africa and the rest of Africa, the Training of these health professional in Nigeria was conducted by qualified Nurses, Midwives and Doctors (Dolamo1 & Olubiyi, 2011).

In Modern day Eritrea, the Swedish Missionaries oversaw medical training. The first clinic was established in 1928 at a place called Eilet and elderly women were recruited to be given short term training through apprenticeship to serve as midwives and nurses (Ali, 2011).

In 1896, Albert Cook a British born medical missionary and his wife Katharine Cook a missionary nurse, came to Uganda with a Church Missionary Society, and in 1897 he established Mengo Hospital, the oldest hospital in East Africa. Cook and Katharine are credited for pioneering training of medical workers in Uganda at time when no attempt was made by colonial leaders (UNMC, 2015).

Later in the 1967, professional Health Tutors' College at Mengo was started with the main aim of equipping trainee tutors specialized in nursing and midwifery training at diploma level. Allied health tutor training was introduced much recently in the 1990s and to-date the diploma has been replaced with a bachelor and a postgraduate diploma (HTC-Mulago, 2017).

1.1.2 Background of study problem: Effective Lesson objectives development

Lesson or learning objectives are statements describing what a student is expected to learn from the lesson. They are also called learning objectives and through following the Bloom's taxonomy, elaborate in brief what the student will be able to do by the time instruction ends (UNC-Charlotte, 2011; Krathwohl, 2002).Furthermore, Lesson objectives act as a means to

achieving course goals. This is because lesson objectives specify the skills, attitudes and knowledge to be acquired at the end of the learning period. Student tutors' training programs should be developed in such a manner that equips them with competences in formulation of lesson objectives such that they can organize meaningful teaching-learning processes. Student tutors should most importantly be taught how to start with general level objectives, then working down to specific objectives chronologically and logically ordered from simple to complex levels (Nic, 2013).

Learning is systematic and any arrangements to instruct should be in position to ensure that students achieve positive outcomes as per the course objective(s). In line with the above, Mager (1997) urged that a useful lesson objective should include the following three major components; performance, that is what students are expected to do; conditions in which students should perform (learning experiences) and criteria (Hougan, 2017). Learning is therefore not by chance; it's a process that occurs in sequence and from the known to unknown or from the simple to complex. Lesson objectives that are specific to the desired outcome are a means to simplicity in learning (Heer, 2011).

Bloom set forth the three domains that is the cognitive, affect and psycho-motor which should be followed when organizing teaching and learning objectives. Amongst these, the cognitive domain emphasizes learning of knowledge through a gradual process and like the rest it has its own levels that are aimed at ensuring that learning is gradually attained. These levels are; Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation (Bloom, 1956).

The original cognitive domain levels of learning were revised to become action verbs, they however did not deviate from the original idea put forth by Bloom. They include; remembering:

Recall or retrieve previous learned information; Understanding: Comprehending the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words; Applying: Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the work place Analyzing: Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences; Evaluating: Make judgments about the value of ideas or materials; and creating: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure (Heer, 2011; Krathwohl, 2002). The aim of revising the levels of learning according to Krathwohl, (2002) was to frame them in a manner that meets the learning needs of the 21st century.

According to Androitis (2017), the core significance of formulating effective lesson objectives is to facilitate the creation of training content that's in line with those objectives. This is so because effective learning objectives provide clarity for learners, in terms of expectations around the training. Furthermore, students get to know what they are supposed to be learning. In a lecture, a teacher can talk extensively about a case, but unless he or she states the objectives explicitly, it can be difficult for the students to know where to direct their attention (Belliveau, 2007).

In addition to above, having effectively formulated objectives helps the teacher to easily write fair and comprehensive questions for assessment of the learning during classroom and for examinations purpose (Chamunorwa, 2010). Effective lesson objectives help a teacher to reflect so that he or she can identify the level of learning that is specified in each. This helps to appropriate each objective an entry-level of the course. Therefore, it becomes less cumbersome

to create lower level learning objectives or identify need for some higher order thinking ones if a student is at post-basic course level (Nic, 2013).

In general, the objectives help a teacher to describe the purpose of an activity and to establish the desired result. They also help a teacher to identify the methodology to be used and to determine how success will be measured (Ossa, 2017).

At HTC-Mulago, student tutors are faced with challenges in formulation of learning objectives. In teacher training, most challenges student tutors face are either individual or institutional related (Kelly, 2017). Using action research principles many of the causal factors regarding student tutors' challenges and general problems at HTC-Mulago, can be addressed through collaborative inquiry and development of interventions whose effect are measurable during evaluation.

It is important therefore that by the time of qualification the student tutors at HTC-Mulago (just like the case should be for any teacher training institution) are able to formulate objectives with minor or no challenge at all (Vyas, 2014).

1.2 Situation analysis on pedagogy at HTC-Mulago

Situation analysis is a systematic collection and evaluation of past and present data aimed at; identification of internal and external forces that may influence an institution's performance and choice of strategies and assessment of the organization's current and future strength, weakness, opportunities and threats (Business Dictionary, 2017).

The situation analysis began with a review of the work processes using a work process analysis model in each of the pedagogical program. Thereafter views from students and tutors were

obtained on how well curriculum objectives are met in various Pedagogical programs categorized as “Classroom theory, Theory Examination Assessment and School practice.

Work process Analysis at HTC-Mulago

A work process analysis is a careful review of a series of steps undertaken to accomplish the tasks that result in a specific output. To improve the effectiveness of any work, one needs to first understand the work processes. Each work process at HTC-Mulago is carefully tailored to the student tutors’ expectations and needs (Davoudian, 1994).

This section shows the analysed work processes that are undertaken in each section of the training of student tutors at Health Tutors College-Mulago. The processes are categorized into sub-themes as; Classroom theory; Theory Examination Assessment and School practice.

Classroom theory teaching

According to HTC-Mulago, class theory teaching refers to the delivery of theoretical content of a given course in a classroom environment. The program starts with the academic registrar alongside the Principal and the deputy principal identifying the tutors and lectures who qualify to teach the various course units for each semester block. Each member of the teaching staff for a given semester block is invited for a briefing a week prior to the beginning of classes. In table 1 (that follow below), work processes are shown as per the pedagogical themes).

TABLE 1: Classroom theory teaching work processes

No.	Step	Materials/ resources	Competences required
1.	Preparation of content	Teaching syllabus, Textbooks, stationary, Personal Computer (PC)	Ability to organize content in a logical sequence that is also suitable for the level of the learner
2.	Readiness for the Lesson	Staff offices, stationary	Formulate lesson objectives in line with the curriculum and following Bloom's Taxonomy
3.	Presentation	Projectors, PCs, whiteboards/chalkboards	Ability to present lesson competently using various didactics, subject command, ability to integrate ICT.
4	Classroom assessment	Stationary	Give appropriate assignments and timely feedback

Theory Examination Assessment:

At HTC-Mulago, Theory examination assessment refers to a written form of demonstration of a certain level of theoretical knowledge by student tutors based on achievement of the learning objectives. It is usually undertaken at mid-semester and at the end of the semester.

The program begins with letters of information being sent out to the members of the teaching staff from the academic registrar's office, informing them of the examination period. This is usually done a month prior to the examination period so as to accord each teaching staff adequate time to set exams and to windup on classroom teaching.

TABLE 2: Theory Examination Assessment work processes

No.	Step	Materials/ resources	Competences required
1.	Setting examination Items and making of marking guide	Teaching syllabus, Textbooks, stationary, Personal Computer (PC)	Ability to set items according to the standard format (MCQ, short answer and Long Essay) following Bloom's Taxonomy
2.	Examination Moderation	Stationary	Ability to critique items objectively
3.	Marking and Feed back	Stationary, Marking guide	Objective marking, and timely feedback

School practice

According to HTC-Mulago, school practice is a temporary period during which student tutors are supervised in teaching methods. This takes place in health training institutions this helps student tutors to have real world teaching experience on their journeys to becoming professional health tutors.

The program begins with the school practice committee together with the administration identifying the potential partner schools for student tutor placements. Thereafter, letters of request are sent to such schools and depending on the feedback, the steps in the table 3 below are follow.

TABLE 3: School practice work processes

No.	activity	Materials/ resources	Competences required
1.	Planning by school practice committee	Stationary	Appropriate Program drawing and budgeting
2..	Liaising with the health training institutions	Transport allowances, letters of request, checklists	Ability to identify suitability of the institution to facilitate school practice. Interpersonal skills in relation to creation of rapport with the health training schools administrators.
2.	Briefing of students	Students' teaching practice materials and allowances	Communication skills, emphasis on following guidelines and observation of the teachers code of conduct.
3.	Delivering students to school practice practicum sites	Vehicles, drivers, a member of teaching staff, travel allowances	Management skills on student conduct during the journeys, and appropriate counsel. Communication skills, operational skill to provide accountability.
4	School practice support supervision	Supervisors, transport fares, allowances, supervision files containing guidelines	Ability to assess teaching and learning Loopholes in students' preparation and classroom deliveries and provision of appropriate support. Counseling and mentorship skills, and provision of timely feedback to students and the HTC administration concerning the state of the entire program at the time of the support visiting.

The above work process analysis was followed up with a situation analysis to establish on academic issues using the same subthemes (classroom teaching, theory Examination Setting and School practice).

The purpose of the situation analysis was to collect relevant data on the (strengths and weakness) of the aspects of pedagogy at HTC as a teacher training institution.

Figure 1: Researcher conducting a focus group discussion debriefs with third BME class of 2016-2017

Classroom teaching

The following responses were given by the stakeholders regarding classroom teaching theme'

Strengths of the classroom teaching program; these are responses that were given to indicate satisfaction with the classroom teaching as a pedagogy program.

The program meets the mission and vision of the institution; qualified lecturers and tutors are available; students gained the required knowledge as per the syllabus; teaching methods

employed are appropriate; there is availability of teaching-learning aids and integration of Information Communication Technology.

Weaknesses of the classroom teaching program; the stakeholders gave the following responses as limitations in classroom teaching as pedagogy program. Content bulkiness especially in foundations of education courses which are combined; Classroom are not big enough for the increasing numbers in enrolment; Content was not completed in some courses due to inadequate time; and lastly placement activities interfere with continuity of classroom teaching.

Theory Examination Assessment

Strengths of the theory examination program; These were responses given in support of the examination assessment as a pedagogy program at HTC-Mulago and they included; Exams are set in line with curriculum objectives; Examinations are set according to Makerere University standards that is, Multiple Choice Questions, short answer questions and long assay questions. Finally, after setting, examinations are subjected to moderation exercises as a measure of quality assurance.

Weaknesses of the theory examination program; These responses were given as weak points of the examination program in pedagogy and they included the following; combined foundations of education exams do not cover entire scope of the course content.

School Practice

Strengths of the school practice program; These responses were given as strengths of the school practice as a pedagogy program and they included the following; the program Links up well with Classroom teaching because students have an opportunity to apply knowledge in the

real world; Micro-teaching is one way of preparing student tutors before placements; there is provision of support supervision; and finally, every student tutor is allocated to school-practicum site in accordance to his or her health specialties.

Weaknesses of the school practice program; these responses were given as limitations of the school practice program in pedagogy and they included the following; support supervision is done hurriedly hence limiting contact time between the student and the supervisor; The required clinical supervision is not done. No documented guiding policy for the school practice customized to HTC; Lack of uniform approach in instructions given by supervisors during support supervision; inadequate monitoring of the school practice programs to ensure student tutors' commitment; Student tutors' are not observed when teaching in class during internal support supervision because of inadequacy of fulltime staff and Inadequate funding for the activity and finally poor reception in some host practicum site institutions.

Conclusions from the Situation Analysis

From the responses above, majority of respondents agreed that school practice issues takes priority. The core issues in classroom teaching and theory Examination Assessment were to be addressed in the then ongoing curriculum review project.

Future Workshop (FW)

Following the situation analysis the researcher organized a future workshop that took place on 28th Feb 2017 at HTC-Pedagogy block. During the workshop, the stakeholders in attendance included student tutors and internal supervisors who interacted to amicably agree on the existing problem and forge away forward.

The future workshop is a technique developed by Robert Jungk, Ruediger Luiz and Norbert T. Mueller in 1970s. It enables a group of people to develop new ideas or solutions in a collaborative effort towards existing problems. A future workshop emphasizes critique, learning, teamwork, democracy and empowerment (Lauttamaki, 2014).

The future workshop started with self-introduction of the researcher, followed by a brief introduction of the purpose of the gathering. Participants were encouraged to brainstorm on their expectations and fears in regard to the workshop and in the critical stage, they gave their views. The FW started as follows:

Expectations of the workshop were to; find solutions to school practice discrepancies; Iron out the differences in approaches to support supervision; know more about pedagogy; and gain knowledge on activities that take place in support supervision.

Thereafter, participants brainstormed on presumed fears such as; Inadequate time for the workshop; and limited freedom of expression.

Following the above, the researcher presented and explained to the stakeholders the guiding principles of an action research future workshop listed as follows; collaborative, democratic, equity and transparent. By being collaborative and democratic, any action research agenda is inseparably linked with dialogue and freedom necessary in the empowerment of all stakeholders in that are affected by the issues at hand. Equity in action research relates to the effect of the study towards social change and that creates the conditions for stakeholders to be accepted and participate fully within the dynamics of social interactions that aim at problem solving (Jones & Stanley, 2010).

Future workshop theme: School Practice

The theme of the workshop was School Practice identified as the priority issue drawn from the conclusions made by the researcher using the findings of the situation analysis. The discussion was opened to the participants to brainstorm on the possible problems associated with school practice and also the potential root causes. The aim was to harmonize the issues that the two groups raised during the situation analysis.

Categories of problems raised in the Future Workshop

The concerns raised from brainstorming were categorized into four main themes as listed below;

School Practice Problems rooting from HTC-Mulago

Members were concerned that support supervision was done hurriedly resulting in inadequate time for transactions between supervisors and supervisees. In addition the supervisors shared that the inadequate funding for the activity affected their supervision processes; it was also observed that the program of school practice collided with placement sites schedules such as promotion schools at the Nursing training Schools; it was also mentioned that there was no structured mentorship program for students which would have improved on their preparedness for school practice activities. Furthermore, students were concerned that supervisors lacked uniformity in various approaches used during support supervision especially in terms of formats for schemes of work, lesson plans and action verbs for formulation of lesson objectives.

School Practice sites Problems

These concerns were mainly raised by students and the first issue was; huge classroom numbers compromised application of some teaching methods. There was also a concern of poor reception from staff on duty, an indicator that the schools were not ready for the students. There was also

inadequacy of teaching aids and lack of ICT facilities in some institutions. Furthermore, there was a concern of excessive teaching load burdened on the student tutors because of shortages of teaching staff in some schools.

Student Tutors' related Problems

These narratives were obtained from the supervisors related to the characteristic behavior of student tutors during school practice and they included; Irregularity in classroom attendance yet proper understanding of the theoretical explanations has a positive effect on practical output. supervisors also mentioned that student tutors don't show commitment to the school practice program demonstrated by poor organization for their teaching in the schemes of work and lesson plans. In addition, the supervisor thought that some student tutors lacked innovativeness in identifying learning experiences and teaching-learning aids yet this form of artistry is vital in teacher development. Furthermore, in some practicum sites, supervisors complained of some student tutors' display of superiority complex in addition to failure to communicate in time for lessons they were to miss.

Support Supervisors

The concerns on supervisors were raised by both student tutors and the supervisors themselves these concerns included; inadequate time for the school practice support supervision as the supervisors were most of the time in a hurry. There was also a concern of the supervisors failing to observer student tutors for the maximum time of classroom presentation.

Pair-wise Ranking/matrix

Following the categorization, the four main themes generated from the parent-theme (school practice) were subjected to a **Pair-wise Ranking/matrix** to democratically prioritize and rank

them. A Pair-wise Ranking/matrix is a tool used to set priorities between different options available. Each individual category was compared directly against the others so as to emerge with a ranking from highest priority to the least (Sundarajan, 2011).

TABLE 4: Pair-wise ranking of identified problems

Key		1	2	3	4	Score	Rank
1= School Practice Problems rooting from HTC-Mulago 2=School Practice sites Problems 3=Student Tutors' related Problems 4= Support Supervisors	1		1	1	1	03	1
	2	1		3	4	00	4
	3	1	3		3	02	0
	4	1	4	3		01	3

From the pair-wise ranking, School Practice Problems rooting from HTC-Mulago was prioritized as the cluster from which a more pressing problem for addressing was to be selected. From the list of issues of concern generated, one was identified as being **"lack of uniform approach to guidelines on schemes of work and lesson plans provided by supervisors during school practice support supervision"**.

After identification of the priority problem for intervention, ideas were generated in the utopia phase through brainstorming on the possible solutions and they included the following; Development of uniform support supervision guide and structured internal Mentorship program for students

The problem was then inserted in a solution tree and converted into a vision to become **"Availability of a uniform guide for school practice support supervision".** When the solution tree was used, the root causes were converted into solutions and the consequences were converted into achievements. The solution that was identified as achievable was development of

a unified guide for school practice support supervision as a remedy for the variations. In the same context the pedagogy department and the researcher took responsibility of coming up with a draft document on school practice support supervision.

In the reality phase, a complete guide on school practice support supervision could not be achieved in time but parts of it were possible. It was now realized that the most urgent problem student tutors were concerned with was the formulation of effective lesson objectives for which several variations in guidance were being received from different supervisors. After careful analysis, formulation of effective lesson objectives was identified as a researchable area because of its importance in teacher profession. The research problem was finally formulated as: "**Challenges Faced by Student Tutors in Formulating Effective Lesson Objectives during School Practice: a Case of Health Tutors' College-Mulago**". The problem was subjected to analysis using a "**Problem Tree"** as indicated in the narrative below.

Problem Tree

A problem tree is the phase in which the negative aspects of a given situation are identified, establishing the cause and effect relationship between the observed problems. In the analysis the challenges student tutors face in formulation of effective lesson objectives, analysis using a problem tree was of prime importance since it would influences the decision of all possible interventions to the existing problem. The problem tree has three parts: a trunk, roots, and branches. The trunk is the main problem. The roots represent the causes of the core problem while the branches represent its effects. The problem analysis for the challenges faced by student tutors in formulation of effective lesson objectives included the following steps; Identification of the subject of analysis which was "challenges in formulation of effective lesson objectives"; Identification of causative factors related to student tutors' failure in formulation of effective

lesson objectives; Visualization of the problems in form of a diagram, called “problem tree” to help analyze and clarify cause-effect relationships regarding challenges in formulation of effective lesson objectives and the associated negative effects (European Commission, 2004).

Problem trees do more than just identify the root causes of the problem. In this study, it helped to provide a visual breakdown of the causes of the challenges student tutors face in formulation of lesson objectives, and furthermore helped to create a visual output that was understood by all stakeholders. Consequently, the use of the problem tree helped to build support for the intervention (development of a guide on formulation of effective lesson objectives), because it summarized the picture of the existing negative situation on formulation of effective lesson objectives. The figures 2 and 3 below show a problem tree for the problem analysis and a solution tree which is a reversal of the problem tree to illustrate a desirable state.

Problem Tree

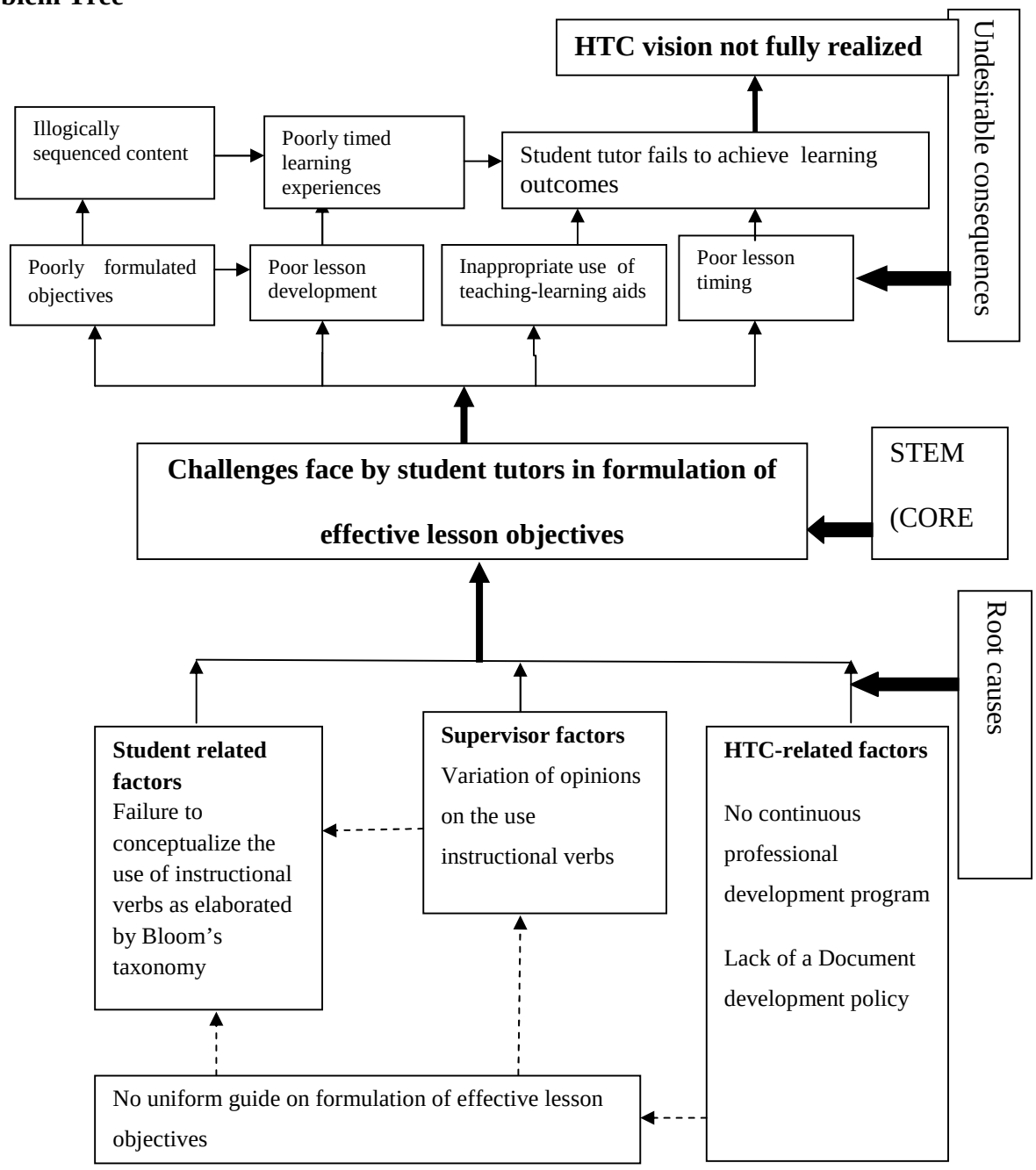

Figure 2: Problem Tree Analysis

Solution Tree

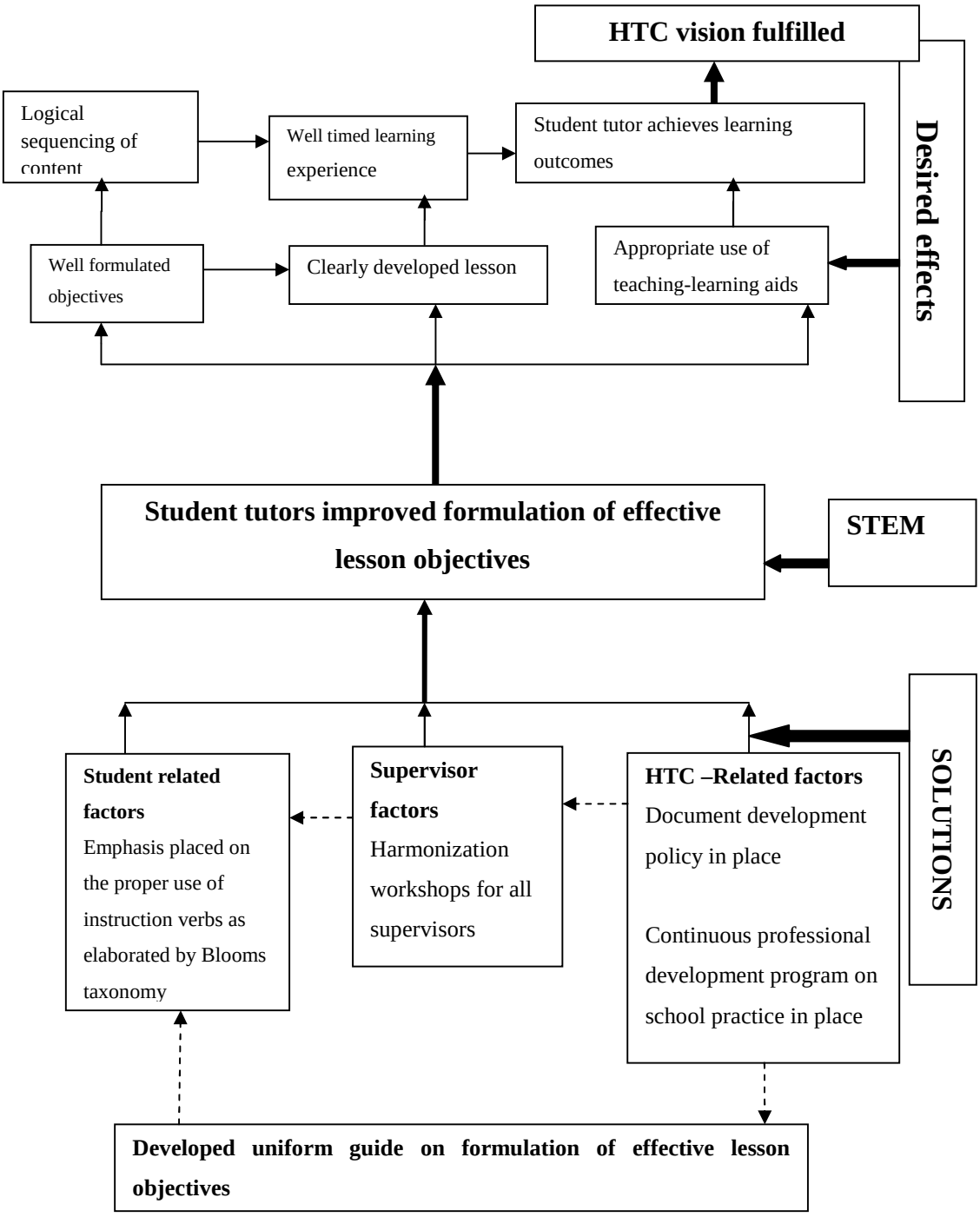

Figure 3: Solution tree

Dote lines in the model indicate lose association, complete lines indicate direct association while the thickened lines indicate strong association.

The figure 2 shows how the root causes identified contribute to the problem which is challenges faced by student tutors at HTC-Mulago, regarding the formulation of effective lesson objectives (represented on the stem). The figure further shows the undesirable consequences (above the stem**)** of the student tutors' failure to formulate effective lesson objectives with the overall outcome being poor realization of HTC vision.

Figure 3 solution tree showing is the conversion of the problem tree. In this illustration, root causes become solutions to the problem and the problem becomes a desirable behavior (ease in formulation of effective lesson objectives). The effects become desirable outcomes with the overall being "achieved learning outcomes" and subsequent realization of the HTC vision.

The pictures show the researcher (standing) and participants interacting and sharing ideas.

The researcher taking the stakeholder and MVP supervisor through the steps to be followed during the Future Workshop.

the researcher recording stakeholder's responses on the various subthemes

stakeholders having discussion on the subthemes

The reseacher guiding the stakeholders through the pair-wise ranking

The research guiding the stakeholders through the problem analysis using a problem tree

Figure 4: Future Workshop in pictures as it happened on 28th Feb 2017

1.2.1 Statement of motivation

As a proud student of MVP and BME, I have gained useful knowledge in work process analysis. Work process analysis is a concept used to profile jobs using several models for example, the Garage model. The Garage model was adopted from the idea that different departments of a car repair garage are organized in a sequential manner from the time a client steps into the service center to the time he or she moves out with a well repaired vehicle (Davoudian, 1994).

Furthermore, the learning experiences I have gone through in both programs (at graduate and undergraduate) have greatly complemented my skills as a teacher. As such I developed interest in the broader area of pedagogy. I had keen interest in how knowledge and skills regarding the teacher education can better be imparted to the teacher trainees especially in the area of formulation of effective lesson objectives. This drive therefore enabled me to pick out pedagogy of all the possible areas that can be researched on at HTC-Mulago.

1.3 Statement of the problem

The mission statement of the HTC-Mulago elaborates that the target of training is to produce competent Health Tutors with positive attitude that delivers quality health training. This implies that all student tutors should qualify with all the necessary skills to teach in their respective health backgrounds but apparently in light of the quality of lesson objectives formulated by student tutors, this is cannot be guaranteed.

Student tutors at HTC-Mulago experience challenges in formulating effective lesson objectives during school practice.

A review of the second and third school practice results for academic years2015-2016 and 2016-2017 of the same cohort was done. Attention was put on the lesson objective section and it was

observed that 65% and 63% of the students in the respective academic years failed to score a full mark and also received a caution to improve.

As noted from some supervisors' comments on the assessment tools of school practice for the years mentioned above, some student tutors could not put to use Bloom's taxonomy in the organization of the teaching and learning process and in particular, formulation of effective lesson objectives. This is further complicated by the fact that an array of varying opinions is obtained from supervisors whose makeup is heterogeneous; that is, some are of a purely pedagogical background while others are purely medical, with a few that combine both disciplines. It was also noted that a guide document on school practice activities such as lesson development and formulation of effective lesson objective is not in place. Yet such a document would have brought all supervisors into uniformity in approach as they deliver support to students tutors in formulating effective lesson objectives during school practice. As a result the contrasting support from the supervisors affect the confidence of students in formulating effective lesson objectives and subsequently their competence and quality as future health tutors.

This study therefore sought to identify factors that contribute to the challenges student tutors face in formulating effective lesson objectives and also come up with strategies that maybe used to address the problem.

1.4 Purpose of action research

To analyze the student tutor training at HTC-Mulago with specific focus on pedagogical programs.

1.5 Objectives of the study

1. To find out the factors that contribute to the challenges student tutors faced in developing effective lesson objectives.
2. To develop and implement a guiding document on formulation of effective lesson objectives
3. To evaluate student tutors' performance in the formulation of effective lesson objectives upon using a guiding document.

1.5.1 Research questions

1. What were the factors that contribute to the challenges health tutor students face in developing effective lesson objectives?
2. Which strategies were followed in development and implementation of a guiding document on formulation of effective lesson objectives?
3. What was the result of the evaluation after implementation of the developed guide on formulation of effective objectives?

1.6 Justification of the study

The Mission of HTC is, "To produce competent Health Tutors with positive attitude that delivers quality health training. Health tutor students are expected to qualify with competences in all attributes of instruction such as formulation of effective lesson objectives. However, information from document review and Focus Group Discussions with students revealed that gaps in formulation of effective lesson objectives existed.

Therefore this study was needed to establish the factors that were responsible for the challenges encountered by the student tutors face in formulation of effective lesson objectives.

1.7 Significance of the study

Formulation of an effective lesson or learning objectives is one of the key elements in an organisation of teaching and learning processes. This study brought to light the factors that were associated with the challenges student tutors at HTC-Mulago faced in formulating effective lesson objectives. Student tutors benefited from the study through realization of causative factors that are avoidable at their level. After realization of the challenges student tutors face, HTC-Mulago administration and the supervisors advocated for a change in the current practice of support supervision so as to utilize the developed guide on formulation of effective lesson objectives as one of the strategies for improving the quality of the qualifying health tutors.

The study also provided new knowledge on how to improve on health tutor training at HTC-Mulago through action research. The action research methods applied in this study will be used towards the improvement health tutor training programs in order to produce competent health tutors that can meet the needs of the world of work.

1.8 The scope of the study

The scope of the study highlighted geographical area, content and time to which the researcher was limited.

1.8.1 Geographical scope

The study was conducted at Health Tutors' College-Mulago, located at upper Mulago Hill specifically in pedagogy as one in programs of Health Tutor training.

1.8.2 Content scope

Broadly, the study was focused on analyzing the pedagogical programs at HTC-Mulago. Then specifically, focus was on the factors that contribute challenges student tutors at HTC-Mulago

face in formulation of effective lesson objectives during school practice. Then followed by development and implement a guiding document on formulation of effective lesson objectives. Lastly, the evaluation of student tutors' performance in formulation effective lesson objectives upon using a guiding document.

1.8.3 Time scope

The time scope of this study dates back to 1967 when the training of health tutors was introduced in Uganda up to 2017. This time scope provided an insight to the tutor training history as well as a platform for improvement in health tutor training at HTC-Mulago.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

In this chapter, literature review on the study is discussed in this order; theoretical framework of the study; factors that contribute to the challenges student tutors face in developing effective lesson objectives; strategies in development and implementation of a guiding document on formulation of effective lesson objectives; and evaluation of the change in student tutors' ability to formulate effective lesson objectives after using a guiding document.

2.1 Theoretical Framework

The transformative learning theory was originally developed by Jack Mezirow in the year 1991 and continued to develop it over a period of two decades. The transformative learning theory focuses on adult learning and in particular post-secondary education because by that time learners are of adult age, and this age is characterized by reflective learning which is implied in the phrase "interpret and reinterpret" (Mezirow, Transformative Learning: Theory to Practice, 1997). The key components of the Transformative theory are: instrumental and communicative learning (Mezirow, Transformative Learning: Theory to Practice, 1997). Instrumental learning focuses on learning through task-oriented problem solving and determination of cause and effect relationships. In the context of HTC, student tutors should be given documented guidelines on how to prepare effective lessons objectives necessary for them to prepare for teaching during school practice. These guidelines act as tools which they use to improve and also make meaning out of their work. On the other hand, communicative learning indicates how individuals share their feelings, needs and desires. When students enroll at HTC, they do so with the main goal to become competent health tutors. If any of the specific objectives is not met, they express their dissatisfaction through complaints or search for redress from the concerned parties. In this study

student tutors expressed concern on several issues concerning school practice among which was "challenges in formulation of effective lesson objectives."

In line with the above claim, Black, (2015) suggests that without a supportive environment and opportunity to experience and explore new perspectives; transformational learning is unlikely to occur. The theory holds that the way learners interpret and reinterpret their sense of experience is central to making meaning and hence learning. If student tutors can derive meaning out of the guiding document on formulation of effective lesson objectives, then learning can improve on their part. In the same context, Merriam (2004) asserts that, "mature cognitive development is foundational to engaging in critical reflection and rational discourse necessary for transformative learning", and this gives credibility to the notion of providing student tutors with opportunities and support to reflect critically on whether the lesson objectives formulated will yield into the expected learning outcomes as stated by the curriculum.

Another theory used in this study is "communities of practice" which was coined by Etienne Wenger (1998) who elaborated that the communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor. The concept provides a useful perspective on knowing and learning. It is used by education institutions and organizations in various sectors as a key towards improving their performance. In the context of student tutors at HTC-Mulago they define their identity in the school by sharing concerns or passion for the studies engage in and strive to perform better as they interact regularly at the college and in College related field activities such as school practice. In the school practice period one of the expectations is ability to formulate effective lesson objectives. Student tutors in the context of communities of practice share their experiences and expertise amongst themselves with the ultimate goal of helping each other to improve.

The convergence of the two theories in regards to Health Tutor training is that: instrumental learning and reflective aspects of the transformative theory are demonstrated in the use of various teaching aids and guiding documents in an effort to accomplish their learning tasks which they also ponder on. This is further combined with peer support as the learning task are being executed thereby fulfilling the requirement for the theory of communities of practice.

2.2 Factors that contribute to the Challenges tutor students face in developing effective lesson objectives

The factors that contribute to the challenges student tutors face in formulating effective lesson objectives during school practice are considered in this review to be of two dimensional. That is those attributed to the institution (to include the supervision process) and the others to the student tutors as linked to realization of the vision of HTC-Mulago.

According to Hougan, (2017), one of the challenges student tutors face is failure to write objectives in simple student-friendly language. They also write learning objectives that seem like paragraphs and eventually losing meaning. Other students fail to differentiate between writing an activity and formulating a learning/lesson objective while some formulate objectives that fail to drive a lesson (Ball, 2000). These failures amount to challenges in formulation of effective lesson objectives which is line with this study. Andriotis (2017) asserts that the failures may come about in situation where the student tutor cannot organize content in a chronological manner. Consequently, the confusion results into ambiguous lesson objectives (Andriotis, 2017).

Kizlik, (2017) stated that at times student tutors fail to indicate in the objectives what specifically the learner will actually be able to do that is observables. As such at the end of the lesson wrong inferences are made regarding achieved objectives. Furthermore, student tutors as according to

Danielson and McGreal, (2000) make objectives whose assessment is completely disconnected from what is intended as an outcome. In line with this study, this argument underscores the importance of that conceptualization of the lesson of objectives if student tutors at HTC-Mulago are to formulate measurable objectives.

Furthermore, student tutors don't foresee a criterion which they'll use to make judgment on their learners achievement. According to Kelly, (2017) at times the learning objectives student tutors make are compounded and eventually losing meaning. This affects the flow of the lesson and hinders the effectiveness of the student tutor. One of the factors stated for such challenges like use of jargons as according to Black, (2015) is failure to use the alternative simpler action verbs.

Vyas, (2014) also observed that student teachers don't engage in the conceptual understanding necessary before embarking on formulation of objectives. Furthermore they make objectives that instead describe procedure of how the objectives will be executed. Consequently, the objectives are abstract and cannot be used to achieve meaningful learning (Chamunorwa, 2010). These studies however, did not elaborate whether the teaching methods, the teaching institution or the students themselves have a role to play in their failure to formulate effective lesson objective.

In another related study, Mager (1997) stated that student teachers fail to adhere to Bloom's Taxonomy so as to focus on the cognitive learning process. In the end they develop objectives that lack chronology. In addition, the selected verbs besides being immeasurable are either of lower order for a senior class or are of higher order in relation to the level of the learner. Unlike the study by Mager (1997), Delany (2009) asserted that teacher training institution may fail a student's progress to becoming a good tutor because of poor coordination. This is in line with the objectives of this study.

Furthermore, Zawisza, (2017) found out that student tutors tend to write descriptions of what is to occur during the instruction as if they were learning objectives. In other words they fail to make a difference between a progression and an intended outcome which is the objective of the lesson.

In addition, Heer (2011), indicated that student teachers forget to reflect on the objectives formulated to ascertain whether what is being stated is an objective, ask, “Have I correctly stated that which I want the student to be able to do at the end of the lesson. Consequently, ambiguity in delivery and poor assessment ensue at the end of the course. The author however indicated that failure of student tutors is due to the fact that reflective practice is not emphasized during training. This is in line with the objectives of this study which aims at seeking for the factors that contribute to the challenges student tutors face in formulation of effective lesson objectives.

Finally, Carey and Carey, (2005) have shown that in addition to the above issues raised, student tutors also fail to put more emphasis on the Bloom’s cognitive domain levels yet by understanding the levels of thinking, they can be able to more specifically identify what objectives they want a lesson to accomplish. As such the authors showed that training at times fails to bring out the true importance of bloom’s taxonomy during instruction in classroom and support during practicum. This is in agreement with what the assertion by Krathwohl (2002) indicating that the emphasis put on the taxonomy during training, helps student tutors to improve their skills in formulation of effective lesson objectives.

2.3 Development and implementation of a guiding document on formulation of effective lesson objectives

Before an intervention is developed in any organization, the principles of action research dictate that key stakeholders must be involved (Tashakkori & Teddlie, 2003). This is because the final product is a collective ownership and if it's a new intervention, it stands chance to be embraced.

The content in a standard document is developed by independent expert committees. Committees are made up of volunteers nominated by organizations (public and private) that express interest in the subject covered by the document (Standards Newzealand, 2017).

In development of a standard document, the first milestone is to make a draft with complete sections of the key elements such as the scope, purpose and operational areas. The guiding document on lesson objective formulation will have a scope and purpose to harness student tutors' progress. Therefore, scope and purpose must be kept in mind at all stages since this will be the basis upon which evaluation of the developed document on lesson objective formulation will be done (IEEE Standards Association, 2017).The other key components is chronologically content organized following the work processes of the teaching plan that lead up to formulation of effective lesson objective (ISO 9001, 2015).

Important still, the inconsistencies in tone may come in during the process of document development, but the best way to avoid them is for members to always use standards verbs. For example (shall, should, and may) as the primary means of conveying the tone of the guide document on formulation of effective lesson objective (Hammar, 2016).

Furthermore, the working group should lay down some ground rules to be followed, so that uniformity is much easier to achieve. In addition, it is important that as a group, a plan is drawn

on how the information contained in the document is going to be explained to the rest of the organization staff (Hammar, 2016; WHO, 2011).

Once the content for the guide in formulation of effective lesson objective is developed, a drafted copy is availed to the stakeholders to comment and give opinion. Comments submitted from the stakeholders are reviewed by the working group in this case the pedagogy department and if necessary the guiding document on formulation of effective lesson objective is modified (Patel, 2015). In summary, the core processes run from agreement on an idea to develop a guiding document, draft development, review, approval, and then publication (The Open Group, 2015; ISO 9001, 2015).

Finally, ISO 9001:2015 clause 3.11 stresses that; documented information must be controlled and maintained by an organization in ways suitable to the changing goals and needs of the time. The guiding document on formulation of effective lesson objective likes any formally developed document should be well controlled by indicating authorship, version, date of creation, review date and finally the approving authority.

2.4 Evaluation of student tutors' performance in formulation of effective lesson objectives upon using a guiding document

In all action research interventions evaluation is vital in assessing whether implementations were successful and as such it becomes a vital step for future planning. By evaluating, we ensure the validity and reliability of an action research intervention. When evaluation is conducted, action built by all stakeholders of an education intervention for this matter, leads to making informed transformations of practice in line with the purpose of the intervention and in this case the a guiding document on formulation of effective lesson objectives (Tashakkori & Teddlie, 2003).

Furthermore, the transformations of the guiding document on formulation of effective lesson objectives are evaluated in terms of the outcomes that are perceived as pertinent to improvement in the way lesson objectives are formulated and their generative potential to harness teaching and learning processes (Trijanto, 2013). Better still, appropriate methods and criteria, such as authenticity, relevancy, involvement, and methodological rigor are used during evaluation in a bid to a certain achievement of set goals (Bartlett & Piggot-Irvine, 2008). This action research study used the approach above because the evaluation had to appear authentic. The action research methods of evaluation in the study allowed for collection of data that was used to ascertained relevance and applicability of the proposed intervention.

In action research, evaluation is carried out in a formative inquiry, with an aim of bringing about improvement in various aspects of the intervention as it proceeds to the next round. Development of a guiding document in formulation of effective lesson objectives just like any other intervention in education practice requires that the evaluation is systematic and chronological (Mejía, 2013). In this study data was collected before and after the implementation of intervention. Although Mejia (2013) made a general observation for evaluation of an intervention, this action research study nevertheless took a similar approach.

Following the development of the intervention, action research emphasizes that the stakeholders compare the contents of the intervention (in the case of this study; a guiding document on formulation of effective lesson objective), with the intended outcomes relative to what actually happens following the implementation (Reis, 2016).

Furthermore, when key stakeholders such as the supervisors in school practice engage their colleagues (in charge of developing the intervention draft) in discussions on issues to do with (in

this case a guiding document in formulation of effective lesson objective) the multiple perspectives that emerge, frame the dialogue and tend to produce wiser professional decisions (Briggs, 2015). This is the collaborative nature of action research studies and at the end of it all, stakeholders are confident that the final product whether good or bad is a collective effort. This kind of approach was used in this study where both supervisors and student tutors shared solutions to problems experienced by students regarding formulation of effective lesson objectives.

Stock et al, (2007) evaluated the effect of training the peers of students with obesity in Canada using test scores, the mean performance score of students suffering from obesity showed a significant improvement after the educational intervention. Although this study was not action research based, the approach used in the evaluation of the intervention did not differ from that employed in this study. The use of statistical analyses to determine significance helped to prove that results cannot be obtained by chance. Therefore, means and their probability values are helpful in reflecting change in performance regarding formulation of effective lesson objectives.

Evaluation can also be done using stakeholders opinion on the intervention being piloted. Jovad et al, (2015) used the opinions of respondents for the educational intervention on improvement of teaching skills to evaluate the intervention. This action research study also employed the same approach to ascertain the stakeholders' opinions on the guiding document on formulation of effective lesson objectives.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter presents the research design, implementation of action research, population, and sample size, sampling techniques, methods for data collection, instruments, data collection and analysis.

3.1 Research Design

The study employed principles of action research which is cyclic in nature as shown in the illustration by Reil (2006). The design put into consideration a Collaborative and Analytic Auto-ethnography (CAAE) approach**.** In this study CAAE was regarded as a form of scientific inquiry where stakeholders were involved investigating the problems associated with student tutors' challenges in formulation of effective lesson objectives, through self-reflection, and dialogic discussions in which all activities that ensued amongst the stakeholders at Health Tutors' College-Mulago occurred in a team, and in a collaborative fashion (Kemmis & McTaggart, 2005).

The stakeholders comprised of in serving lecturers, and student health tutors (Clark & Sharf, 2007).The researcher and the intervention implementing team here referred to as an auto-ethnographers engaged in interrogation amongst each other collectively and cooperatively (Chang, 2013). With this in mind, the researcher acted as a facilitator for guiding the process and assisting the CAAE team in Future Workshop through to the development of the guiding document on formulation of effective lesson objectives (Hoepfl, 1997).

The action based nature of the study implied that the researcher observed for the effects of an intervention, during the study period (Jae, 2010). The action based nature of the research involved mainly qualitative approaches with limited aspects of quantitative data collection.

Qualitatively, the purpose was to explain why various aspects of tutor training at HTC-Mulago were the way they are. This was demonstrated by several explanations given during the situation analysis and future workshop indicating how they were perceived by the stakeholders in a situation (Padilla-Díaz, 2015).

The quantitative method of data collection and analysis was used because at the evaluation phase, the following was done; (a) accurate operationalization of the pre-intervention and post-intervention tests and measurement of the outcome of the intervention (the use of a guiding document in formulation of effective lesson objectives). (b) Conducted group comparisons in performance in the two tests. (c) examined the strength of association between use of the guiding document in formulation of effective lesson objectives and student tutors' improved competences in formulating of effective lesson objectives, and (d) also tested the research hypotheses using statistical techniques (Haverkamp, 2005).

Action Research provided an interesting opportunity (for an individual or organization) to engage in critical (self-) reflection. It also provides an opportunity to conducting participatory inquiries for learning and social change. In this regard the learning was on how well the guiding document on formulation of effective lesson objectives proved that with it in use student tutors can improve (O'Byrne, 2016).

The overall idea is that action research consists of research activities that are oriented toward enhancing practice. The Action research model used is one of Riel shown in the illustration below.

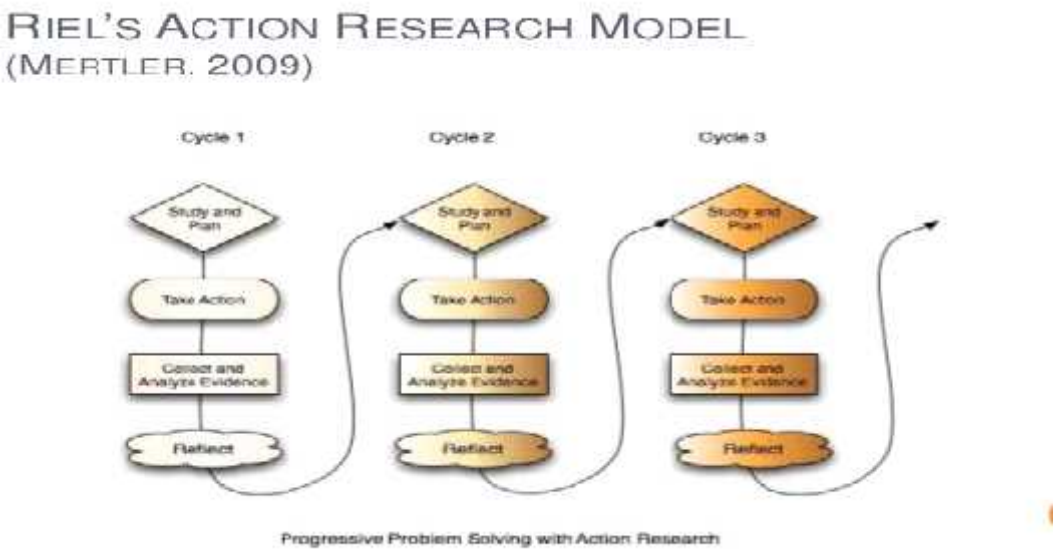

Figure 6: Riel's Action Research model

In the study and plan phase, a situation analysis was done at HTC-Mulago during which work processes for the various pedagogical programs were analysed. Planning was done in the Future Workshop where members from the pedagogy department agreed to work with the researcher, to develop a strategy that will help students to improve on formulation of effective lesson objectives.

In the action phase, a draft guide on formulation of effective lesson on objectives was developed and piloted on a group of student tutors.

Data in terms of scores was collected to evaluate performances of a group of student tutors who utilised the guiding document and compared to another group that did.

In the reflective stage, opinions on the appropriateness of the guiding document on formulation of effective lesson objectives were obtained from groups that represented both tutors and student tutors. These opinions were analysed to assess whether all stakeholders were in agreement with the new intervention

When the intended outcomes of the developed intervention are not achieved in first cycle of Riel's model the intervention is abandoned, the project goes back to the starting point and the second cycle begins. It the results indicate that the intervention can work but with changes, it is adapted. But when the intervention is perceived successful, it is adopted and incorporated into routine practice. In the case of this study, a guiding document on formulation of effective lesson objectives was adopted (Riel, 2010).

3.2 Implementation of Action Research production objective

The implementation of the production objective of this action research was done through identification of two student groups. The first group comprised the pre-intervention where students formulated effective learning objectives without aid of a guiding document while the second group (post-intervention) used a guiding document. The result obtained from both groups were analysed later on for statistical significance.

3.3 Study Population

The study population was administrators, tutors/lecturers and student tutors at HTC-Mulago. This was in agreement with Billet (2001) who stressed that, engagement of stakeholders in problem solving ensures implementation of the suggested solutions. The involvement of the college administrators in the study was because they act as policy maker for all tutor training programs at HTC-Mulago. Tutors were involved because they execute the activities of school practice and support supervision. Student tutors were involved because they are the recipients of the tutors'/lecturers' services during school practice.

3.3.1 Sample Size

The table 5: Shows the sample sizes that were used for each category of stakeholders at every given stage of the Action Research project

Event	Stakeholder category	target	Sample size (n)	Sampling technique(s)
Situation analysis	**Key informants**			Purposive
	Administrators	03	03	
	Full-time tutors	10	10	
	Focused Groups			
	Third BME Class	30	25	
	Total	43	38	
Future workshop	Administrators	03	0	Purposive
	Full-time tutors	10	04	
	Third year BME Class	63	14	
	Total	76	28	
Implementation	Full-time tutors	4	2	Purposive
	Third year BME Class	20	20	Purposive and Simple random sampling
	Total	24	22	
Evaluation	Full-time tutors	10	5	
	Third year BME Class	20	20	
	Total	30	25	

3.3.2 Sampling technique

Purposive sampling techniques have also been referred to as non-probability sampling or purposeful sampling or ‘‘qualitative sampling.’’ Tashakkori and Teddlie, (2003) define Purposive sampling as techniques that constitute certain units or cases based on a specific purpose rather than randomly. Therefore, the purposive sampling technique enabled the researcher to select key most influential stakeholders who implemented the identified strategies and evaluation of this project outcome. In the implementation and evaluation phase, student

tutors were selected randomly to participate in the pre-intervention and post-intervention. The randomization was used to eradicate selection bias in both sex and performance attributes.

3.4 Methods of data collection

The methods employed to collect data in this study were used in a manner that addresses each objective specifically and in line with the principles of action research.

- Structured Interviews were used with aid of an interview guide in which a list of predetermined questions on pedagogy themes was designed to collect data during situation analysis. The structured interviews helped the researcher to probe for responses from participants for further elaboration on the subject (Gill, 2008).
- Focused Group Discussions (FGDs) are a predetermined semi-structured interviews led by a moderator who elicits responses and generates discussion among the participants (third year student tutors). Five Focus Groups with each constituting six members were engaged in discussions on classroom theory, theory examination assessment and school practice. The discussions helped to exhaust information on the subject matters to a point of saturation. The goal was to generate maximum amount of opinions within the specified period of time (Socialcops, 2015).
- Future workshop; it is a method for planning and forming a future. In the planning phase of the study, it helped to find causes of problems. The workshop used a participatory self reflective method for generating data and supporting the organisation of the expected change.
- Document Review: this is a method of collecting data by reviewing existing documents. It is also formalized technique of data collection involving the examination of existing

records or documents (Bretschneider, 2017). Document review was done on three occasions; during situation analysis, when quantifying magnitude of performance on lesson objective formulation and on the search for documents for existence of a document creation and review policy and presence of Continuous Professional Development programs or workplace learning programs.

- Pre-intervention and Post-intervention assessment tests: such tests are important in piloting a new intervention on a small sample of the study population prior to being subjected to the larger group. Statistical analysis using the unpaired T-test statistical technique was used to help make comparison between the performance in the pre-intervention and post-intervention groups. In a related study carried out to assess student performance when lectures were conducted using multimedia by Alorain (2012) results of the pre-intervention and post-intervention tests had the difference between the average scores analysed for significance using the T-test statistical techniques. Although Alorain's study was not action research based, the use of a T-test statistical technique seemed appropriate to evaluate the intervention and this is supported by Stock et al., (2007).
- Use of a Likert scale questionnaire**:** this was employed to seek for stakeholders' individual opinions about the relevancy of a guiding document regarding formulation of effective lesson objectives. The results were analysed both semi-qualitatively and quantitatively.

3.4.1 Instruments of data collection

An **Interview guide;** in this study, questions were generated. The guide was used in guiding the line of questioning study participant during the interview. The Interview guide as a data

collection tool **(appendix ii)**,was chosen for the situation analysis because it helped to inquire for more detailed information about stakeholders' personal feelings, perceptions and opinions on the pedagogical issues at HTC-Mulago (Angus, 2017). Probing techniques were used to illicit detailed information regarding sensitive areas such as managements.

Test

It was used to assess student tutors' ability in the formulation of effective lesson objectives (Cozby, 1997). The choice of a test as tool was based on the need to collect data related higher order thinking in formulation of effective lesson (Weimer, 2015). A test **(appendix iii)** was administered to two groups of student tutors as a pre and post-intervention assessment.

Questionnaire

the instruments consisted of a series of questions developed for the purpose of gathering information from the stakeholders (Gault, 1907). In this study, a Likert Scale questionnaire **(appendix vi)** was used for the evaluation of the guiding document on formulation of effective lesson objectives. It further helped to assess stakeholders' opinions and the degree to which they agreed with statements regarding the use of a guiding document on formulation of effective lesson objectives (LaMarca, 2011).

3.4.2 Validity and Reliability

Validity refers to how well a test measures what it is purported to measure. It makes sure goals and objectives are clearly defined and operationalised (Phelan & Wren, 2006). Reliability refers to the degree to which an assessment tool produces stable and consistent results. The idea behind reliability is that any significant results must be more than a one-off finding and be inherently repeatable (Shuttleworth, 2008). Validity of the interview guide **(appendix ii)** was censured by

administering them to fellow HTC staff and some student tutors to assess whether the responses were in line with the themes. Some spelling and grammatical errors were corrected. Reliability was assured by requesting a colleague to pretest the questionnaire tool on students and assess whether same responses could be obtained. We were able to get similar results and eventually confirmed that the tool was reliable. Reliability of the test **(appendix iv)** for evaluation of the guide was assured by sharing it with supervisors and some students who were not part of the study. Minor changes were made in the instructions to correct the mistakes.

3.4.3 Ethical consideration

A Letter of introduction was obtained from Kyambogo University-MVP program to take to the HTC-Mulago. At the workplace the management endorsed reception of the introductory letter and permission to carry out the study at HTC-Mulago was granted. This permission was oral since I was a staff member of HTC-Mulago at that time.

The proposal was submitted to Kyambogo University Dean of Graduate Studies for permission to proceed with the study.

For each participant in the study consent was obtained after thorough explanation of the purpose of the study. The participants voluntarily accepted to join the study by endorsing on the consent forms. Finally, the identities of all participants were concealed throughout the study.

3.5 Procedure of data collection

Data collection for the study employed both qualitative and quantitative method relevant to the principles of action research. The process was executed through the following stages;

A letter of introduction from the Dean of Graduate Studies Kyambogo University was submitted by the researcher to HTC-Mulago seeking permission to conduct the study. The Principal of HTC-Mulago gave the researcher permission to proceed with the study.

Situation analysis was the first stage of data collection during which work process analysis was carried out. Thereafter, an interview guide was used to collect data from the tutors (supervisors) and administrators (the Principal, Deputy Principal and the Academic registrar) related to the pedagogical themes (class room theory, theory examinations and school practice).

Interviews were structured **(appendix ii)** and verbally administered. A list of predetermined questions on pedagogy themes was developed (Gill, 2008). The interview method used mainly was face to face for all key informants (administrators and supervisors at HTC-Mulago). Each stakeholder was first oriented to the aims of the study and thereafter, the interview began. Five focused groups were set up comprising of averagely eight student tutors of third year class Bachelor of Medical Education programme. The groups were engaged in discussions using the same interview guide as for the supervisors and administrators (Socialcops, 2015). The Focused Group Discussions helped to understand the issues surrounding pedagogy at a deeper level from the student tutors' point of view. The discussions were continued up to a period of thirty to forty five minutes (Socialcops, 2015; CTB, 2018). This time frame was chosen because of the busy schedule of the academic programs at HTC-Mulago.

Document review was used by looking at the BME curriculum objectives on pedagogy during the situation analysis and later compared to the responses of the supervisors and student tutors' expectations.

Following the situation analysis, a Future workshop was organized. It was used because of its participatory and self reflective nature. The workshop facilitated gathering of data from both categories of stakeholders (student tutors and supervisor). This session also helped to triangulate and emphasize on the issues of school practice that were originating from the situation analysis. The future workshop consisted of three phases: the first was critical phase; here specific issues and problems regarding school practice were drawn out through brainstorming. The critique points were categorized and eventually evaluated. The second phase, fantasy, allowed participants to turn critique points into the opposite (bad to good) as starting points. The ideas were collected in the idea store. In the last phase, the implementation/reality, ideas (in the "idea store") regarding school practice problems were in more concrete terms to pick out the best suited and realistic concepts. These concepts were subjected to evaluation and decision was made based on available resources and need. In this action research we used the pair-wise matrix to establish the priority area of concern affecting school practice for which an intervention strategy was democratically agreed on. An action plan was later built in which the pedagogy department was tasked to work with the researcher for execution.

After the future workshop, the problem that was eventually identified by the stakeholders for critical study required that more documents were reviewed. The reviews were on two occasions. The first was to assess student tutors' performance on lesson objective formulation. The second was to establish existence of a document creation and review policy and presence of Continuous Professional Development programs or workplace learning programs. For each data obtained, it was recorded in a note book and where applicable copies were obtained.

During the implementation phase of the study, the developed intervention which is a guiding document on formulation of effective lesson objectives **(appendix iii)**, was piloted and data was

collected by way of the following strategy; two groups of ten student tutors each were purposively selected to participate in a test **(appendix iv)**, respectively. The pre-intervention (a group that was not oriented on the developed guide in formulation of effective lesson objectives) and post-intervention were tested on formulation of effective lesson objectives. The tests were scored and marks were recorded on score sheets. The lesson objectives formulated by each student tutor were analysed critically by two supervisors to identify the areas of weakness. These finding were recorded in text form.

During evaluation, two the strategies were employed to ascertain vitality of the developed intervention. In the first strategy, the marks obtained from the implementation stage were subjected to statistical analysis using the unpaired T-test statistical technique. This was to help make comparison between the performance in the post-intervention group (that had used a guiding document on formulation of effective lesson objectives) and the pre-intervention group. This offered statistical proof on significance of the document on formulation of effective lesson objective.

In the second strategy of evaluation, the researcher first presented to the stakeholders the stage at which the study was, then the results from the pre-intervention and post-intervention tests. Later a Likert scale questionnaire **(appendix vi)** was given to the stakeholders to seek for their opinion about the guiding document. The results were analysed both qualitatively and quantitatively.

3.6 Data Analysis

The researcher employed qualitative analytical methods of thematic approach to interpret data which was generated from narratives. Data from the implementation phase involved both qualitative and quantitative analysis because the outcomes from the pre-intervention and post-

intervention test required statistical analysis using the Un-paired t-test statistics. Un-paired t-test statistics was used because performance was measured on two occasions and this constituted the measurement variable while the two nominal variables were the pre-intervention and post-intervention tests (McDonald, 2015).

In the Evaluation phase data was also analyzed using qualitative and quantitative methods. Quantitatively, responses on Likert scale questionnaire were analyzed using frequencies and on the same questionnaire items included also called for the narrative responses that gave explanation as to the choice in the section preceding. Likert scale questionnaires are easily understood, responses are easily quantifiable and subjective to computation of some mathematical analysis (LaMarca, 2011).

CHAPTER FOUR: ACTION IMPLEMENTATION RESULTS AND EVALUATION

In this chapter findings are presented under the following sub-headings; factors that contribute to the challenges health tutor students face in formulating effective lesson objectives; development of interventions and implementation strategies and finally evaluation of the intervention.

4.1 Factors that contribute to the challenges health tutor students face in developing effective lesson objectives

The analysis of the objective used a thematic approach. In this case, stakeholder s' responses were presented after having been analysed to reach a point of convergence/common ground on a given issue regarding the challenges faced by student tutors' in the formulation of effective lesson objectives.

4.1.1 Student tutor related factors

During the situation analysis and future workshop, the supervisors at HTC-Mulago raised the following factors regarding students' weaknesses in formulating effective objectives. These included: Student tutors' failure to relate classroom knowledge (Bloom's taxonomy) on lesson objective formulation to real world of school practice. Furthermore, there is lack of appreciation of the importance of effective lesson objectives in the teaching and learning process. Finally, student tutors fail to make a difference between course objectives and lesson objectives.

4.1.2 Supervisor related factors

Regarding the supervisor related factors contributing to student tutors' challenges in formulation of effective lesson objectives, the following factors were raised by student tutors during situation analysis and future workshop. Student tutors were concerned that they get contrasting guidelines from the supervisors on the same objective or issue regarding formulation of lesson objectives.

Some of the issues include the use of action verbs or which particular action verb should be appropriate. The student tutors were also concerned about the variations that could possibly arise from the fact that supervisors were of different backgrounds (medical and pedagogy) ; some are purely pedagogy while others are purely medical.

4.1.3 HTC related factors

Lack of Document development and review policy

The administrators revealed that there was no document development policy at the HTC an institution. This was followed up with a review of all documents concerning School practice. These documents included; the supervision schedule template and assessment tools. The attributes that were sought for were; the date of creation, review or expiry date, authors, version number, and authorizing personnel.

Lack of Continuous Professional Development (CPD) program at HTC-Mulago

Document review further revealed that CPDs were not programmed for on the academic year planner as according to one of the academic registrar and the principal. Furthermore, there were no documents concerning CPD. The trainings that had occurred in the past had only been spontaneous and had nothing to do with the staff development policy.

4.2 Development a guiding document on formulation of effective lesson objectives

During the future workshop, the staff, members agreed that the pedagogy department would spearhead the task of bringing into harmony the various ideas and come up with a guiding document that to be used in the future by supervisors and students during school practice.

The members agreed to develop a guiding document on development of effective lesson plan.

The draft document was developed following international guidelines for standards development such as those indicated in the International Standards Organisation (ISO 9001:2015).

To better help the cause, the committee agreed that the guidelines of development of Scheme of work and Lesson plan be developed alongside those on effective lesson objective for chronology. The final document therefore contained details of guidelines on development of the Scheme of Work, Lesson Plan and Formulation of Effective Lesson Objectives. **See appendix (III) for details.**

4.2.1 Core Aspects of the guiding document on formulation of effective lesson objectives

During development of the document, emphasis was placed on, reviewing the curriculum so as to identify the level of the learner the student tutor has to teach. This dictates the scope of learning and the complexity of the lesson objectives. This is followed by the course unit and its objective. This helps to identify the broad outcome of the course unit. The time allocated for the course unit also helps to formulate lesson objectives that are time bound. Development of logically sequenced course content; this helps in formulation focused of lesson objectives in a chronological manner. Finally, formulation of effective lesson objectives putting into consideration the help the mnemonic “SMART”, implying that the objectives are specific, measurable achievable, realistic and time bound. A table provided is provided in the document for a choice of action verbs for each of the levels of learning in the three domains of Bloom’s taxonomy.

4.2.2 Implement a guiding document on formulation of effective lesson objectives

During implementation, emphasis was placed on the following area; ability to use the action verbs appropriately and chronological sequencing of the objectives. Before implementation of the document, a baseline assessment was done by subjecting ten (10) third year BME students to a pre-intervention test on development of effective lesson plan objectives. Another group of ten students in the same class was given a post-intervention test. This was done to have comparable results on the two groups. Two tutors were requested to mark the test so as to minimize scoring biasness and the data obtained as indicated in the table below was average score per student.

Table 6: Pre and post-intervention Scores

pre-intervention group scores out of 3		**post-intervention test scores out of 3**
No.	Average score	Average score
	1.5	3
	1.5	3
	1.5	3
	1	3
	1	3
	1	2.5
	1.5	2.5
	1.5	1.5
	1.5	2.5
	1	2.5

The students in the pre-intervention test did not organize objectives in logical sequence. In some incidences, action verbs were used without putting into consideration whether they were of low order or high order thinking. It was also clear that the student in the pre- intervention test did not bear in mind the need to use the levels of thinking/learning in the cognitive domain of Bloom's taxonomy.

4.2.3 Evaluation of the implementation

In this phase, results from the implementation process were analyzed using a statistical technique called Un-paired T-test for analysis of means, to assess whether the results/performance of the two groups (pre-intervention and post-intervention) are statistically significant. This technique depends on setting hypotheses on what the researcher wants to measure by applying the intervention. In this case the outcome behavior was ability to formulate effective lesson objectives while the exposure was orientation to the guiding document in formulation of effective lesson objectives. Subsequently, the hypotheses were formulated as follows

Hypotheses

Null Hypothesis: the mean difference between the post-intervention and pre-intervention tests is Zero. This means that the student tutors' average scores in formulation of lesson objectives are not different between the two groups of students (one that used the guiding document and one that did not use)

Alternative Hypothesis: the mean difference between the post-intervention and pre-intervention tests is no Zero. This means that the average scores in formulation of lesson objectives are different between the two groups of students (one that used the guiding document and one that did not use)

The Unpaired T-test statistics uses a Confidence level that was set at 95% with a margin of error at $\alpha = 0.05$. This means that if the null hypothesis is true, 95% of the student tutors in school practice will get a score (in the section for formulation of effective lesson objectives) that lies within the confidence interval of the pre-intervention group. On the other hand when the null hypothesis is rejected, 95% of the student tutors in school practice will get a score (in the section

for formulation of effective lesson objectives) that lies within the post-intervention confidence interval.

The results from the tests were analysed (using STATA version 13 statistical software) to obtain the unpaired T-test outputs in table 7 below.

Table 7: Statistical presentation for the pre-intervention test and post-intervention test on formulation of effective lesson objectives using the t-test statistics

Variable	Observations	Mean score	Std. Dev.	[95%Conf. Interval]
Post-intervention test	10	2.65	0.47	2.31-3.0
Pre-intervention test	10	1.3	0.26	1.11 - 1.5
Mean Difference	20	1.35	0.17	1.0- 1.70
t = 7.90, p<0.0001				

According to the result in the table7 above, the mean score difference between post-intervention and pre-intervention is 1.35 at 95% [Confidence Interval 1.0 - 1.70] and $p<0.0001$ which indicates that the probability of a student tutor failing to formulate effective lesson objectives when using a guiding document is very low. Alternatively the $p<0.0001$ means that chances of having the mean difference in score being zero is too low and that difference was not likely be due to chance. The statistic therefore implied that hypothesis one (the null) was rejected and we concluded that there was strong evidence to suggest that the use of a guiding document will help student tutors to improve on formulation of effective lesson objectives.

A second phase of evaluation was done through use of a self-administered Likert scale and responses were given on continuum scale 1 to 5. Each figure represented the opinions as follows; 5= strongly agree, 4= agree, 3= No opinion, 2= disagree and 1= strongly disagree. During data

analysis responses strongly agree and agree were collapsed into one to become agree while strongly disagree and disagree were collapsed to make disagree.

Both supervisors and students were involved in the evaluation process and results obtained are tabulated in table 8.

Table 8: Student tutors' and supervisors' opinions on acceptability of the intervention

Question	opinion	Frequency	Percent
Student tutors' responses			
A guide on development of effective lesson objectives	Agree	17	85.0
	Disagree	3	15.0
	Total	20	100.0
A guide will result in improvement in formulation of lesson objectives	Agree	18	90.0
	Disagree	2	10.0
	Total	20	100.0
Opinion on the Need for developing guide for all school practice programs	Agree	20	100
	Disagree	0	0.00
	Total	20	100
Supervisors responses			
Question	Opinion	Frequency(f)	Percent (%)
A guide on development of effective lesson objectives	Agree	05	100.0
	Disagree	0	0
	Total	05	100.0
A guide will result in improvement in formulation of lesson objectives	Agree	05	100.0
	Disagree	0	0.0
	Total	05	100.0
Opinion on the Need for developing guide for all school practice programs	Agree	05	100
	Disagree	0	0.00
	Total	05	100

Results in table 8 above indicate that 85% of the student tutors and all the supervisors who participated in the evaluation agreed that a guide on development of effective lesson objectives is

needed. They further gave the following reasons for the above response which were; to ensure that guidance from the supervisors is uniform. They further explained that student tutors will gain confidence in the use of Bloom's taxonomy as they prepare to teach.

On whether the guide would bring about improvement in formulation of effective lesson objectives, 90% of the student tutors and all the supervisors agreed. They opined that student tutors will attain the desired outcome of health tutor training of becoming competent in organizing teaching and learning processes through use of effective lesson objective.

With regard to all school practice programs having guiding documents developed for them, all the supervisors and student tutors involved in the evaluation program agreed. They also explained that conformity to professional and quality in teacher training profession would be achieved.

CHAPTER FIVE: DISCUSSION

5.0 Introduction

In this chapter, discussion of results was done following the order in which results were presented for each objective

5.1 Factors that contribute to the challenges health tutor students face in developing effective lesson objectives

5.1.1 Student tutor related factors

Among the factors that were raised was; the failure of student tutors to relate classroom knowledge (Bloom's taxonomy) on lesson objective formulation to real world of school practice. This was because many engage in rote learning and fail to conceptualize the importance of effective lesson in teaching and learning processes. This was in line with Brabeck, Jeffrey, and Fry, (2017) who urged that deliberate practice is not the same as rote repetition. In deliberate practice, attention, rehearsal and repetition lead to new knowledge or skills that can later be developed into more complex knowledge and skills. This is because regular practice is necessary and relatively sufficient for acquiring expertise in formulation of effective lesson objectives.

Student tutors also demonstrated failure to make differences between the course objectives and lesson objectives. This is probably due to the fact that students fail to interconnect the different content of the various course units. For example course objectives are addressed in curriculum theory whereas lesson objectives in teaching methods. This claim is supported by Jackson (2017) who urged that the cause for confusion between course objectives and lesson objectives is the outcome from either. Jackson (2017) further stressed that the reason why student tutors so often combine course objectives and lesson objectives is because they cannot make a clear distinction

in the nature of the outcome for either category. Course objectives describe the intended long term change that will be observed in the student while lesson objectives express short term changes that will be observed in the students. Horst and Martens (2009) also argued that student tutors may not know that lesson objectives are meant to address a single broader course objective in more specific ways. As a result they formulate lesson objectives that seem too broad for lesson level requirement.

It was noted from responses in the study that, students had no idea that it was necessary to formulate objectives with emphasis put on the levels in each domain of Bloom's taxonomy. This was further pointed out that classroom theory was underutilized and that class sessions did not opportunity for real life linkages like mock classroom sessions for student tutors prior to school practice. Nancy (2015) in support of the this, indicated that the basic problem student tutors face with Bloom's taxonomy is defining the learning process as a sequence of progression from simpler memory recall function to higher levels of learning such as immediate application through use of classroom learning experiences. This implies that the teaching and learning process may not be clearly laid out.

5.1.2 Supervisor related factors

In regard to supervisors at HTC-Mulago, according to the student tutors, one of the challenges they face regarding competent formulation of effective lesson objectives during school practice was the varying opinions from the supervisors and most confusingly on the same objective(s). This may be as a result of differences in the professional specialty backgrounds of the supervisors as was revealed in the study. HTC-Mulago has a heterogeneous teaching staff where some are purely pedagogy others purely medical and some with both medical and pedagogical backgrounds. It is not logically conceivable therefore that these supervisors can pass on the same

information to the student tutors. A purely medical supervisor is unlikely able to support a student in an area such as effective formulation and proper sequencing of lesson objectives that require adequate grounding in pedagogy. Similarly a purely pedagogy supervisor may have a hard time correcting a student in a health related objective. For example if a student tutor wants to set an objective on management of a medical condition, the choice of whether to use action verb “explain” or “describe” requires that the supervisor has good medical knowledge. In a related study, Moswela and Mphae (2015) highlighted that students in Botswana Teacher Training schools were concerned that clinical supervision is being led by people who are not necessarily qualified in the area of supervision. The study revealed that they (supervisors) do so only by virtue of their official seniority position, and as a result are not helpful in developing the student teacher in his/her teaching activities. Another study in Zimbabwe’s Integrated National Teachers Education Course as pointed out by Anderson (1997) and Mayer-Smith (2006), student teachers complained that supervisors did not help students make connections between theory and practice.

This revelation is a clear implication that variations and contradiction are without a doubt likely to occur in support given to students regarding formulation of lesson objectives during school practice at HTC-Mulago. It is therefore imperative that a supervisor who is not well grounded in both pedagogy and medical education be empowered through capacity building so as to deliver meaningful support to student tutors during school practice support supervision. In light of this assertion, the Universities such as Northern Michigan University have set out clear guidelines regarding student tutor supervision. Among these are requirements such as having completed a course in Supervision of Student Teaching or possesses appropriate training as an acceptable alternative (NMU, 2017).

5.1.3 Institutional related factors

Lack of Document development and review policy

The findings noted from the key informants (the principal, deputy principal and academic registrar) that there was no document development policy at the institution. All tools concerning School practice are not part of a major document from which they are extracted. This was based on the absence of attributes indicative of a document under control. Such attributes include; a version number at the footnote. This is in contrast to international standards because according to the ISO 9001: 2015 a document that is well developed and controlled, addresses the following; has a date of creation and authorship, communicates information; provides evidence of conformity by users and shares knowledge. This is not the case at HTC-Mulago because none of the documents reviewed that were linked to school practice conformed to International Standards Organization's requirements.

The effect of not having a document policy is that supervisors have no reference regarding communication of guidelines on formulation of effective lesson objectives similar to Standard Operating Procedure documents used in medical practice. In addition, there is a lot of accusation and counter accusation from either side of student tutors and supervisors. Student tutors use the gap (absence of a guiding document on formulation of effective lesson objectives) to blame their inadequacies and inabilities on supervisors.

The lack of guiding documents resulted into every supervisor to use individualized approaches to formulation of effective lesson objectives. At times this left student tutors in a limbo especially when the guidance given contradicted with what was provided from a previous supervisor. When uniform guidance on formulation of effective lesson objectives is delivered across by all supervisors to student tutors it guarantees harmony. It further improves student tutors'

confidence in their supervisors. In line with this, Webster (2017) urged on the use of standardized communication tools that when used by HTC-Mulago or any other organization, improves quality and performance within its systems thereby improving service delivery and in the case of this study, student tutors' teaching competence..

Lack of CPD program at HTC-Mulago work for place learning

From interviews with HTC-administration and document review, Continuous Professional Development (CPD) programs were not scheduled for on the academic year planner. This implied that there was no policy on CPD. For education institutions like HTC-Mulago, CPD bring all staff to a common understanding of all relevant activities in tutor training. For instance, supervisor would enrich their skills on provision of objective support in formulation of effective lesson objectives to student tutors during School Practice. This finding was in line with one by Cranton, (2016) who argued that in all aspects of professional practice, capacity building for staff is very important for organizations and education institutions because it improves efficiency in skills and output of staff. HTC-Mulago does not engage in workplace learning for its staff involved in student tutor training. Yet this is vital in ensuring lifelong professional learning. Kizlik, (2017) also asserted in support of the above that institution such as HTC-Mulago should consider CPD to be an ethical obligation and a staff right to have their training needs addressed.

Furthermore, without CPD the supervisors are likely to experience knowledge decay and may never appreciate the gaps they have in regards to formulation of effective lesson objectives. In line with this view, Laal and Salamati, (2012) have supported it when they urged that without CPD it is hard to improve the knowledge, skills and competences needed in teacher education institutions and hence failure to foster academic prosperity that is so desired by all stakeholders. This claim is further supported by the United States Department of Education (2017) findings,

which indicated that CPD can help teachers to become more efficient. Furthermore, still in the US, a national policy on CPD provides for at least five days a year dedicated on teacher professional development (US-Department of Education, 2017).

5.1.4 Development a guiding document on formulation of effective lesson objectives

A guiding document on formulation of effective lesson objectives was developed for utilization by both supervisors and student tutors as the target audience. This was a collaborative effort of the members of the pedagogy department and the researcher.

For any intervention to be designed in education and professional organisation, it is important that a team of dedicated members is selected either on voluntary basis or by virtue of job requirement. For the case of HTC-Mulago, members of the pedagogy department agreed to work with the research on this assignment because it directly links up with their area of specialty. This view is in line with the ISO 9001:2015 requirement that obliges organisation such as HTC-Mulago to identify individual roles in any document development or review activity so that commitment and accountability is guaranteed. The aim of developing a guiding document on formulation of effective lesson objectives was to eradicate the unnecessary variations that student tutors encounter as they interact with various supervisors during school practice. This view is supported by Webster, (2017) who urges that when guiding documents are used in any organization such as HTC-Mulago there will be improvement. This is because there will be uniformity in approach to activities carried out, such as support given to student tutors in line with formulation of effective lesson objectives.

The draft version of the guide on formulation of effective lesson objectives that is now in existence was appropriately identified and described with a title, date of creation, authorship, and version number (ISO 9001, 2015).

5.1.5 Implement a guiding document on formulation of effective lesson objectives

A baseline assessment was done and ten (10) randomly selected third year BME students participated in the pre-intervention test on development of effective lesson plan objectives. Another group of ten students in the same class was given a post-intervention test. This was done to have comparable results regarding formulation of effective objectives. The pre-intervention group acted as the control group while the post-intervention group acted as the test group. This is in line with a study by Aloraini (2012) on the impact of using multimedia on students' academic achievement in the College of Education at King Saud University. In this study two equivalent groups of 20 students were made, one experimental and the other a control; each of them consists. In another study, Stock et al, (2007) to improve performance of obese learners in the elementary school Canada, two sample groups (the test and control) were used.

After formulating the two intervention groups, the document was pilot-tested. Pilot-testing of the guiding document on formulation of effective lesson objectives helped in assessing the quality of the intervention and also collect data which was used in the evaluation process. This was in line with literature obtained from University of Kansas (KU), (2017) which indicated that implementation of a new intervention to a larger population /group of students (such as student tutors at HTC-Mulago) requires that it should first be pilot-tested on a small scale. Morin (2013) shared a similar view and urged that piloting helps to address any issues that may affect specific components in any intervention and that including the educational ones. Furthermore, Neil

Humphrey, (2010) also viewed that an intervention once piloted; there is a chance that it may be modified/refined following or during a pilot study.

The pilot study results for the guiding document were assessed and the findings indicated that student tutors in the pre-intervention test, demonstrated implausible use of action verbs with no regard to the order of learning as per the cognitive domain of Bloom's taxonomy. In some cases objectives lacked logic sequencing and. Other objectives were formulated with inappropriately low order verbs for the associated content. This demonstrated that student tutors did not have a clear idea on how to use action verbs for the intended outcome. Therefore inappropriate use of action verbs and logical sequencing of objectives were apparently evident as challenges in the pre-intervention group of students. In line with this, Zawisza (2017) opined that verbs used at each level should clearly bring out the level of complexity of the objective so as to avoid misconception amongst students. For example, setting an objective at the introduction of a concept that requires learners to explain when actually the teacher intends to have them define a given terminology.

5.1.6 Evaluation of the implementation

Evaluation of the intervention was done in two phases. The first one was a pre-intervention and post-intervention evaluation method. The evaluation was done using a quantitative statistical technique to analyze the significance of the guiding document. The second evaluation used a semi-quantitative approach with the help of a Likert scale questionnaire. The Likert questionnaire helped to assess the stakeholders' acceptability of the guiding document on formulation of lesson objectives. Elliot, (1993) in support of the above urged that "action research evaluation techniques are very vital in gathering evidence to support the stakeholder's

judgment about the meaning and significance of the intervention implemented for the realization of success".

The first phase of evaluation, indicated that the guiding document was helpful towards the student tutors efforts in formulation of effective lesson objectives with a statistical significance ($P<0.0001$). The use of a guiding document therefore helped student tutors in the post-intervention test to formulate meaningful lesson objectives. In light of that finding, if a guiding document on formulation of effective lesson objectives is used in school practice, student tutors will benefit. Therefore HTC-Mulago will have covered great strides in accomplishing the mission of producing competent health tutors. This view is supported by a study by Stock et al, (2007) who assessed the effect of training the peers of students with obesity in Canada and the intervention revealed that the mean performance score of students suffering from obesity showed a significant improved after the educational intervention. In a related study carried out to assess student performance when lectures were conducted using multimedia by Alorain (2012) results of the pre-intervention and post-intervention tests from students indicated that there was a significant improvement in performance at a $P<0.0001$.

In the second phase of evaluation, responses from the stakeholders (students and supervisors) indicated that a good number of them 85% agreed that a guide on development of effective lesson objectives was needed. This was because majority thought that the document would ensure that guidance from the supervisors is uniform. Furthermore, it was believed that student tutors' would gain confidence in the use of Bloom's taxonomy as they prepare to teach and also eventually become competent in formulation of effective lesson objectives. These findings are supported by a study carried by Jovad et al, (2015) in which respondents felt that the educational

intervention on improvement of teaching skills was appropriate and had a positive impact in improving their knowledge of effective teaching methods.

Finally, all the respondents in the second phase of evaluation agree that all HTC-Mulago school practice programs should also have guiding documents developed, because conformity to professional and quality in teacher training profession will be achieved. The use of guiding documents to in profession practice is vital in maintaining good performance (Bartlett & Piggot-Irvine, 2008).

5.2.0 Conclusions

The challenges student tutors faced in formulation of effective lesson objectives were of a multi-factorial origin. They comprised of student factors which contributed to their weaknesses in formulation of effective lesson plans. The supervisor related factors included provision of varying opinions of guidance on formulation of effective lesson objectives. According to student tutors, this affected their ability and confidence in formulation of objectives. Institutional related factors at HTC-Mulago; have also been observed to play a role in contributing to student tutors' challenges in formulation of effective lesson objective. Such factors included; lack of a policy on document development and review. This was evidenced during review of documents related to school practice that none of them exhibited evidence of a policy in place as was also confirmed by the administration. In addition to that, the absence of CPD programs at HTC-Mulago was a clear indicator that workplace learning for tutors in supervisory roles is not prioritized.

Furthermore, a collaborative effort of the pedagogy department and the researcher led to development of a guiding document on formulation of effective lesson objectives as an intervention. This was letter implemented on a group of student tutors divided into two groups

(pre-intervention and post-intervention groups). The results obtained from the implementation were used to evaluate the intervention and they indicated that HTC-Mulago student tutors can improve on their skills in formulation of effective lesson objectives provided that both the supervisors giving support and the student tutors use a guiding document.

Finally, stakeholders (students and tutors) responded positively in support of the developed guiding document to be use in formulation of effective learning objectives. They also agreed that all school practice related programs should have guiding documents developed to help student tutors have a holistic benefit that is expected of teacher education.

5.2.1 Strength of the study

The study employed action research principles which were helpful in collaboratively identifying factors that were presumed causal of the challenges student tutors face in formulation of effective lesson objectives. The use of statistical techniques in analysis of results aided in providing scientific evidence that a guiding document on formulation of effective lesson plan can bring about a positive change for student tutors in training. All in all student tutors involved in the study registered significant improvement when the supervisors supported them using the development guide in formulation of effective lesson objectives.

5.2.2 Limitation of the study

The tight academic schedules of HTC-Mulago made it impossible to always convene a big number of participants for the workshops, meetings and surveys (questionnaire responses). Furthermore in addition to using a non probabilistic technique for sample selection, a small sample of student tutors for evaluation of the developed guide. This was also as a result of failure to access a reasonably willing larger group because of a similar problem of tight schedules at

HTC. All these factors in isolation or combination were likely hinder to the generalizability of the study findings to other institutions of teacher education. In addition to that two separate groups were used (the pre-intervention and post-intervention groups) and this warranted us of an un-paired t-test statistics was used instead of a more rigorous paired t-test. This was because it was difficult to have test and control groups that could commit to sitting for tests in the pre- and post- intervention approach that is expected of a t-test. This meant that the study could not estimate by how much a single participant in the test group had improved.

5.3 Recommendations

The challenges student tutors faces in formulation of effective lesson objectives are solvable. In general, HTC-Mulago should address student tutors' academic issues and others concerns pertaining related learning programs through use of action research methods.

The college should develop and implement policies on document development for all academic programs so that professional conformity to practice attained. This will ensure that activities such as those in school practice are guided upon documented designed approaches at all times rather than haphazard individual supervisor discretions.

The practice of Work place learning in form of CPD and others like workshop geared towards improving skills of school practice supervisors should be embraced and programmed for by HTC-Mulago. This will help the supervisors to keep abreast with practical and theoretical knowledge that will eventually benefit the student tutors they (supervisors) support by the time of qualification.

A guiding document on each school practice program should be developed for ease and unification of supervision. These documents will also help student tutors to improve their competences in preparation for teaching and learning processes.

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APPENDICES

Appendix I: Letter of Introduction Health Tutors' College-Mulago

KYAMBOGO UNIVERSITY
P. O. Box 1 Kyambogo, Phone: 041-285001/2 Fax: 041-220464
www.kyambogo.ac.ug
FACULTY OF VOCATIONAL STUDIES
DEPARTMENT OF ART & INDUSTRIAL DESIGN
MASTERS IN VOCATIONAL PEDAGOGY PROGRAMME

28th September, 2016

To the Principal Health Tutors' College Mulago

HEALTH TUTORS COLLEGE MULAGO
RECEIVED

RE: INTRODUCTION OF SSESANGA HUSSEIN

This comes to introduce to you **SSESANGA Hussein** a student of Masters in Vocational Pedagogy (MVP) Programme at Kyambogo University. This student bears registration no. 15/U/14600/GMVP/PE and in his final year. As a requirement for graduation, this student is expected to carry out Action Research through a collaborative process with World of Work.

Any support rendered to him is highly appreciated.

Looking forward to your usual support.

Yours Sincerely,

Chris Serwaniko
Project Coordinator, NORHED MVP Program
Masters in Vocational Pedagogy Program

Appendix II: Situation Analysis Interview Guide

Master Vocational Pedagogy Action Research

I am by names Ssessanga Hussein a Masters Student of Vocational Pedagogy program tenable at Kyambogo University Faculty of Vocational Studies, Department of Art and Industrial Design.

I am undertaking a situation analysis regarding aspects of pedagogy at Health Tutors' College (HTC). The aim is to establish a baseline status that will in the future be subjected to a Future Workshop where stakeholders will collaboratively identify the challenges/problems and development of implementation strategies for solutions that will be raised. In light of the above, I kindly request you to participate in this study because I have identified as one of the stakeholders involvement in the teacher training program at HTC.

The information provided here will be used only for academic purposes and any further future use will have your permission sought for.

Consent note:

I …… after reading and comprehending the information above, agree to participate in the study.

Please note: It's your right to opt out of the study at any time of your convenience.

Pedagogy has three main aspects of major interest;

Classroom theory/teaching

Theory assessment

School Practice

Please state your designation at HTC……..

I request you to respond to questions based on the concept of Strengths Weakness Opportunities and Threats (SWOT) analysis.

Classroom teaching theory;

Strengths……

Weaknesses……

Opportunities……

Threats……

Theory assessment

Strengths……

Weaknesses……

Opportunities……

Threats……

School practice supervision and assessment

Strengths……

Weaknesses……

Opportunities……

Threats……

Thank you for your participation

Appendix III: Work Process Analysis template

	Pedagogical program	Activity	Competence required
1	Classroom Theory		
2	Theory Examination Assessment		
3	School Practice		

Appendix IV: Excerpt of the guiding document of formulation of effective lesson objectives

Starting to formulate effective lesson objectives for Classroom theory

Lesson objectives are defined as statements that illustrate the expected goals of a lesson in terms of demonstrable knowledge, skills or attitude that will be acquired by a student as a result of learning. They allow follow-up (e.g. formative feedback) and measuring to ascertain whether learning occurred (UNC-Charlotte, 2011).

In general, there are four criteria for the formulation of effective lesson objectives:

To clearly envisage the criteria, an example is used as an objective for instance: By the end of the lesson, the student should be able; "to state the definition of blood or to define blood."

Criteria for development of lesson objectives

Criteria	**Topic: Blood**	
Behavior	Describe the desired student performance	**To define blood**
	Refer to Bloom's Taxonomy to focus on specific cognitive process.	The cognitive process is: **Memorizations or Recall**
Task development	Break down the task and select measurable verbs appropriately. In simple terms "What are students expected to do?"	The task is; **be able to** state the definition of Blood
	Use simple sentences and words that are understandable without sacrificing technical accuracy.	The sentence **" to define or state the definition of blood"** is relatively simple
Standard	Have a standard on how well students have to perform a given task in order to satisfy the required outcome.	The required outcome is: **"ability to define the term blood**" and order to accomplish, certain terminologies have to be included in the definition in the right sequence for it to make sense.
Conditions	Under which conditions should the students, perform?	Depending on the required outcome such as the one above, the tutor should be to determine whether "stating or defining blood" can be achieved with minimum effort or ease.

Review the course and course objectives: this will show what the course expects the student to be able to do by the time a given course objective is covered. For example the course is epidemiology and the course objective is: **By the end of the course, the student should be able to carry out malaria prevention and control measures.**

Logically sequence the content:

Start by selecting a topic or sub-topic and arrange them in manner that will enable you to formulate specific and measurable objectives.

For example: the topic is **malaria, prevention and control**

Content can be broken down as follows:

- Malaria introduction (definition and epidemiology)
- Life cycle
- Prevention and control measures

4.4 Formulate the Objective

Start to brainstorm on which possible action verbs to use in formulating objectives following Bloom's taxonomy and levels of learning. Also have a plan of how to measure each objective at the end of it.

Using the example above: Bear in mind the levels in Bloom's cognitive domain

By the end of the lesson, students should be able to;

- Define, recite, or recall etc the definition of malaria **(this is the remembering level**)
- Describe the life cycle of malaria (**understanding level**)
- Discuss the various measures in prevention and control of malaria (**application and analysis level**)
- Evaluate or critic the various prevention and control measures **(synthesis level)**

Plan for measuring objective

Have a prior plan for measuring each of the objectives; for example at an appropriate time during the lesson or at the end, the student tutor will;

i. Ask students to recite, recall, the definition of malaria to assess whether they can remember.
ii. Ask students to state the epidemiology of malaria
iii. Ask the students to describe the stages of the lifecycle of malaria in their own words
iv. Let students brainstorm or discuss the prevention and control measures of malaria.
v. Ask students for their opinions on the suitability of each of the prevention and control measure.

Bloom's Taxonomy: Three Learning Domains

i. Bloom's Taxonomy - Cognitive Domain - (intellect - knowledge - 'think')

A revised model of Bloom's Taxonomy (1956) Cognitive Domain was produced by Anderson & Krathwhol in which the levels five and six (synthesis & evaluation) were inverted and all the levels became verbs, suggesting that learning is an active process

Cognitive Domain

Category or 'level'	Behavior descriptions	Examples of activity to be trained, or demonstration and evidence to be measured	'Key words' (verbs which describe the activity to be trained or measured at each level)
Remembering	Recall or recognize information	Multiple-choice test, recount facts or statistics, recall a process, rules, definitions; quote law or procedure	Arrange, define, describe, label, list, memorize, recognize, relate, reproduce, select, state
Understanding	Understand meaning, re-state data in one's own words, interpret, extrapolate, translate	Explain or interpret meaning from a given scenario or statement, suggest treatment, reaction or solution to given problem, create examples or metaphors	Explain, reiterate, reword, critique, classify, summarize, illustrate, translate, review, report, discuss, re-write, estimate, interpret, theorize, paraphrase, reference, example
Applying	Use or apply knowledge, put theory into practice, use knowledge in response to real circumstances	Put a theory into practical effect, demonstrate, solve a problem, manage an activity	Use, apply, discover, manage, execute, solve, produce, implement, construct, change, prepare, conduct, perform, react, respond, role-play
Analyzing	Interpret elements, organizational principles, structure, construction, internal relationships; quality, reliability of individual components	Identify constituent parts and functions of a process or concept, or de-construct a methodology or process, making qualitative assessment of elements, relationships, values and effects; measure requirements or needs	Analyze, break down, catalogue, compare, quantify, measure, test, examine, experiment, relate, graph, diagram, plot, extrapolate, value, divide

Evaluating	Assess effectiveness of whole concepts, in relation to values, outputs, efficacy, viability; critical thinking, strategic comparison and review; judgment relating to external criteria	Review strategic options or plans in terms of efficacy, return on investment or cost-effectiveness, practicability; assess sustainability; perform a SWOT(strengths weaknesses opportunities and threats) analysis in relation to alternatives; produce a justification for a proposition or venture, assess the effects of a plan or strategy; perform a detailed risk analysis with recommendations and justifications	Review, justify, assess, present a case for, defend, report on, investigate, direct, appraise, argue, project-manage
Creating	Develop new unique structures, systems, models, approaches, ideas; creative thinking, operations	Develop plans or procedures, design solutions, integrate methods, resources, ideas, parts; create teams or new approaches, write protocols & contingencies	Develop, plan, build, create, design, organize, revise, formulate, propose, establish, assemble, integrate, re-arrange, modify

Appendix V: Test on formulation of effective lesson objectives

Research Study on the use of formulation of effective lesson objectives

I am by the names Ssesanga Hussein a finalist student of Masters of Vocational Pedagogy at Kyambogo University. I am undertaking a study on the use of Scheme of Work and hereby request you as a student of HTC to participate in the study. This study is aimed at helping to improve School Practice for tutor training by streamlining support at HTC-Mulago.

Consent: I the undersigned what has been explained to me regarding the study and agree to participate in it.

Signature……

Instructions

Choose a topic in any course of your specialty and set any three lesson/learning objectives(use the space below or turn over the page)

THANK YOU

Appendix VI: Rubric for assessment of the Test

For each objective the maximum score is 1mark. The standard of scoring the objective are considerably lenient bearing in mind that adequate time was not available for prolonged orientation (on the guiding document on formulation of lesson objectives) prior to the post-intervention test.
The criteria to consider while scoring an objective as effective is as follows;

The formulated lesson objectives should have addressed the following:

Behaviour: what students should be able to achieve regarding the subject matter in question. To this end, a student tutor should choose verbs that are in keeping with the activity that a student tutor expects from students. In addition, the appropriateness of the order of the verb (low or high) being used should be considered.

Content: Clarity of the substantive material that the student must be able to apply to the activity in question. The student tutor should describe this substantive material in the most specific terms possible.

Conditions: under what conditions should the student display the behaviour in question? For example, conditions must be clear under which the student tutor wants his or her student to operate in.

Standard: what is the minimum level of performance that a teacher considers to be successful; what do students need to do to pass?

Lesson objectives should be **SMART (TT):**

Speak to the Learner: learning outcomes should address what the learner will know or be able to do at the completion of the course

Measurable: learning outcomes must indicate how learning will be assessed

Applicable: learning outcomes should emphasize ways in which the learner is likely to use the knowledge or skills gained

Realistic: all learners who complete the activity or course satisfactorily should be able to demonstrate the knowledge or skills addressed in the outcome

Time-Bound: the learning outcome should set a deadline by which the knowledge or skills should be acquired;

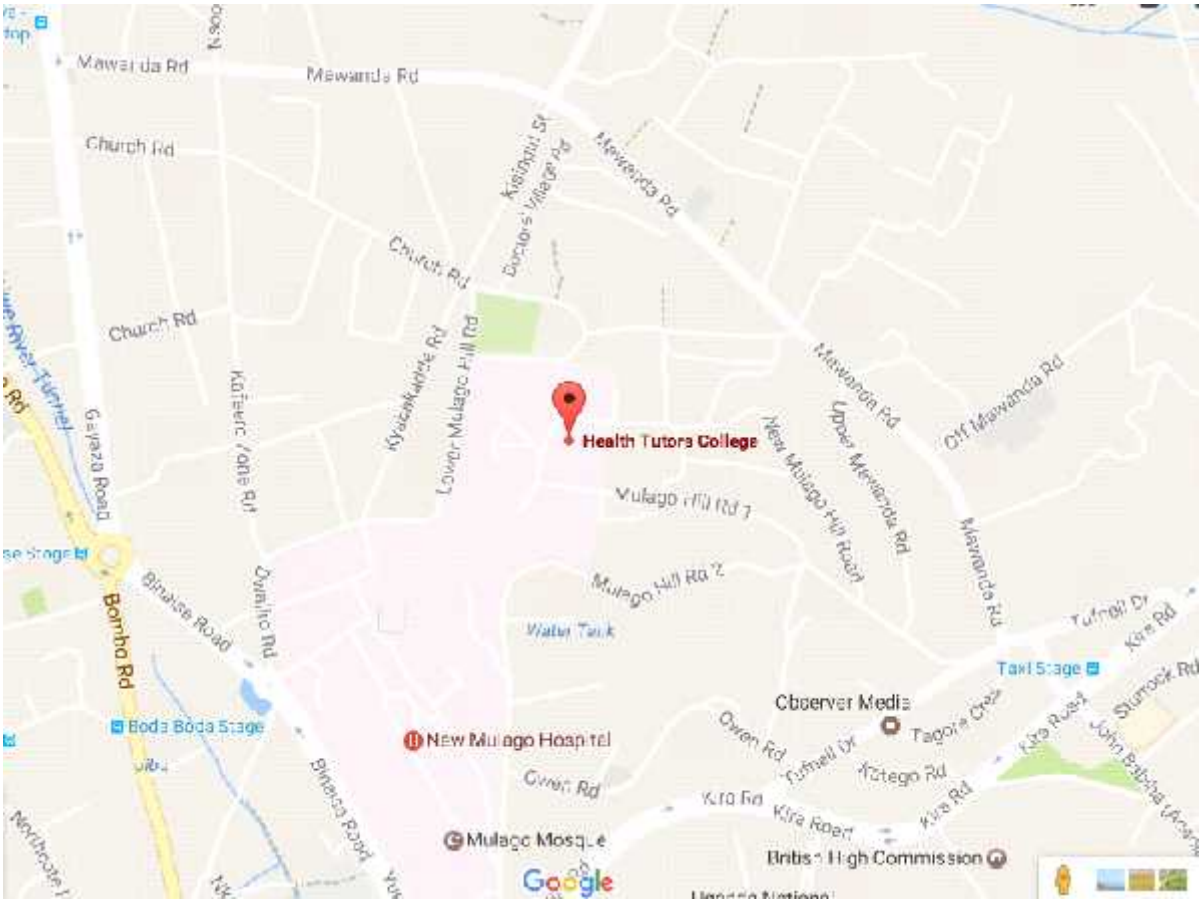
Transparent: should be easily understood by the learner; and

Transferable: should address knowledge and skills that will be used by the learner in a wide variety of contexts.

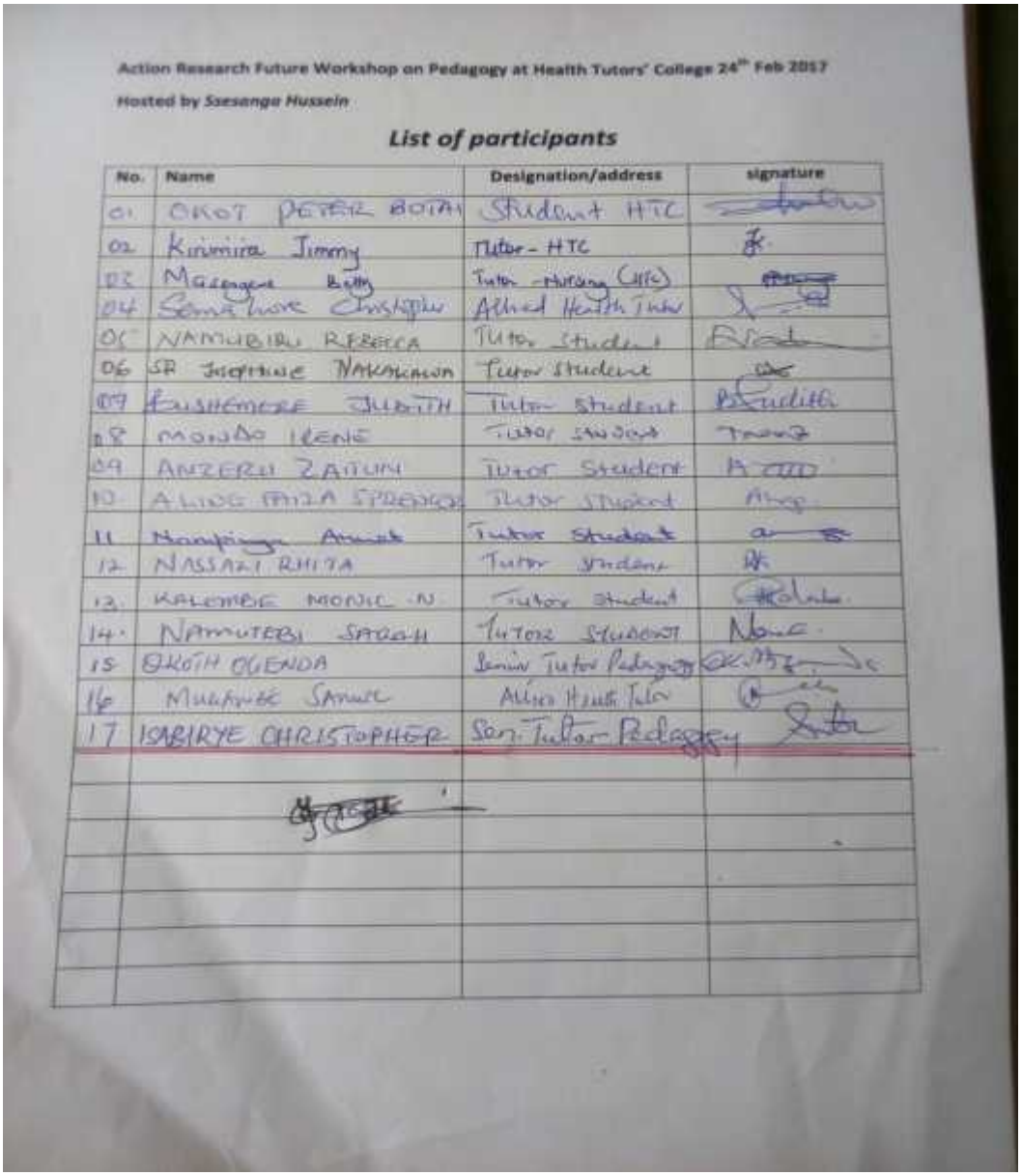
Appendix VII: Questionnaire on stakeholders' opinion on the use of a guiding document on the formulation of effective lesson objectives

No.	Question items	5	4	3	2	1
1.	a. A guide on development effective learning/lesson objectives needed for use during school practice					
	b. Give a reason for choice of response in 2a above					
2.		5	4	3	2	1
	a. The guide will result in improvement in formulation of effective lesson objectives					
	b. Give a reason for choice of response in 2a above					
3.	a. All aspects of the school practice program should have a guiding document developed	5	4	3	2	1
	b. Give a reason for choice of response in 3a above and examples of school practice aspects that may need guiding documents developed					

Appendix VIII: Map Guide to the Study Site



Appendix IX: List of Future Workshop Participants



Action Research Future Workshop on Pedagogy at Health Tutors' College 24th Feb 2017

Hosted by *Ssesanga Hussein*

List of participants

No.	Name	Designation/address	signature
01	OKOT PETER BOTAH	Student HTC	
02	Kiwanuka Jimmy	Tutor - HTC	
03	Nalongo Betty	Tutor - Nursing (HTC)	
04	Semakula Christopher	Allied Health Tutor	
05	NAMUBIRU REBECCA	Tutor Student	
06	SR [illegible] NAKAKAWA	Tutor Student	
07	[illegible] JUDITH	Tutor Student	
08	MONDO IRENE	Tutor Student	
09	ANZERU ZAITUN	Tutor Student	
10	[illegible]	Tutor Student	
11	[illegible]	Tutor Student	
12	NASSAZI RHITA	Tutor Student	
13	KALEMBE MONIC N	Tutor Student	
14	NAMUTEBI SARAH	Tutor Student	
15	OKOTH OGENDA	Senior Tutor Pedagogy	
16	MUGANGE SAMUEL	Allied Health Tutor	
17	ISABIRYE CHRISTOPHER	Sen. Tutor Pedagogy	