

TO ESTABLISH THE EXTENT TO WHICH THE SUBJECT MASTERY ENHANCES QUALITY TEACHING TO STUDENT-TEACHERS DURING TEACHING PRACTICE

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Abstract

Teaching is said to be a noble profession. It encompasses imparting of knowledge, skills and attitudes. The mastery of subject matter is an essential skill that a teacher requires to be endowed with, in the teaching and learning process as it has a direct impact on teaching and learning process in schools. Teachers are required to know what they are teaching because understanding of subject matter by a teacher implies that the teachers is able to grasp the main points and teach them to the learners, and to correct any misconceptions of knowledge, and all this revolves around the teachers understanding of the subject matter . The overall effectiveness of the system of education in any country is determined by the quality of its teachers and the extent of teacher education and training. The teacher, as an educator requires necessary abilities and skills in order to attain confidence and self drive for educational development, and these are acquired in teacher education. This study aimed at establishing to what extent subject mastery enhances quality teaching to student-teachers during teaching practice with special reference to Thogoto teachers college. The study adopted a descriptive research design. From a population of 342 respondents, a sample of 30% from each group was taken using stratified random sampling technique. Data was collected by use of a semi-structured questionnaire, and it was analysed using Statistical Package For Social Sciences (SPSS) version 21 to calculate descriptive analysis. The research established that when a student teacher is able to interpret and apply the subject matter knowledge learnt in class, it makes a huge impact on the learner and the student teachers are able to make a contribution to positively change their environment.

Key words: Student teacher, Subject Matter, Teaching Practice, quality teaching, P1 teachers

1.0. Introduction

There is need for the student-teacher to have adequate mastery of subject matter in the subjects they teach as this is beneficial to student-teachers, regular teachers, curriculum planners, learners and the government. The student-teachers mastery of the subject matter influences the learners understanding of the subjects they learn, performance and the eventual attainment of national goals. Mastery of the subject matter by the student-teacher helps them to impart knowledge effectively and confidently. It is through the mastery of subject matter that the student-teachers are able to impart the right skills of communication, collaboration, critical thinking and creativity that are based on the three learning domains of cognitive, affective and psychomotor. The learner gets maximum benefit from teacher-learner relationship that is based on teacher's competence in the delivery of subject content.

2.0. Statement of the problem

Thogoto Teachers College trains P1 teachers for primary schools in Kenya. During the training, trainee teachers go through three sessions of teaching practice programmes where they are expected to apply their acquired knowledge, skills and techniques so as to grow and link them to a culture of teaching. However, the teaching practice supervisors noted that the majority of the teacher trainees did not take teaching practice seriously. During preparation period, the student-teachers come up with sub-standard work and their supervisors are forced to push them to prepare, especially on the side of the teaching/learning aids. Some student-teachers run away from college during this period for fear of teaching practice. Teachers prepare sketchy lesson plans and go to teach without lesson notes. This unpreparedness makes them teach using textbooks instead of lesson notes. The subject mastery lacks creativity and depth in reading. This has raised concern on the teachers' quality and professionalism both in the college and nationally. This situation posed a problem because the student-teachers fail to understand the important role of teaching practice when training to be teachers. Prospective teachers' performance during teaching practice provides some basis for predicting the future success of the teachers, as it is indicated in subject mastery, which is an important element towards the part played by teaching practice in enhancing quality teaching among the student-teachers.

3.0. Purpose of the study

The purpose of the study was to establish the extent to which the subject mastery enhances quality teaching to student-teachers during teaching practice. Specifically, the study established the importance of the student teachers mastery the subjects' content to quality of teaching. Secondly, the study determined the efficacy of subject matter mastering in enhancing the quality of teaching. Lastly, the study looked at the difficulties experienced by student teachers in mastering their subjects content

4.0. Research objectives

1. To establish the importance of the student teachers mastery the subjects' content to quality of teaching.

2. To determine the efficacy of subject matter mastering in enhancing the quality of teaching
3. To find out the student teachers difficulties experienced in mastering their subjects content

5.0. Research questions

1. What is the importance of the student teachers mastery of content to quality of teaching?
2. How does the subject matter mastering enhance the quality of teaching?
3. What difficulties do student teachers experience in mastering their subjects content?

6.0. Significance / Justification of the study

The results were expected to provide a framework for focusing on the subject matter by the student teachers while on teaching practice as a basis for quality teaching. As a result of this, various stakeholders benefitted. The researchers gained both theoretical and practical experience on the role of subject mastery in enhancing quality teaching during teaching practice. This study also benefitted the research process in the way the research designs, instruments were applied when data was being collected, as well as it was analysed to get the results now used as knowledge. The scholars using the findings of this study now regard subject mastery with the seriousness it deserves to give teaching the best quality and thus improve education development as a whole.

7.0. Literature Review

7.1. Importance of subject mastery in enhancing quality teaching

The mastery of subject matter is the foundation upon which the education of a teacher is based. The teacher requires among other things the skill of mastering the subject matter and being able to establish the interrelationships between different subjects. These are essential for the professional preparation of a teacher and anchor firmly on a foundation of general education of a teacher which contributes to the growth of a teacher as a person. The teacher specializes on the subjects to be taught which generally equips the teacher with scholarly knowledge of those subjects and integrates with professional education leading to new understandings and skills for professional performance (Shantz and Latham, 2012). The mastery of subject content by a teacher greatly determines the quality of teaching and subsequent learning. The teacher with good knowledge of the subject matter is able to plan and teach the lesson by way of highlighting the main points of the lesson to the learner while clarifying the knowledge misconceptions. This is believed to influence learning and contributes to the quality of teaching and learning. The teacher is required to arrange and manipulate the learning environment which requires a number of tactics intended for learning to take place. This calls for teachers' competence in subject content mastery and content delivery. Therefore the teaching methods and the content are important for the teacher. Training helps the teacher to comprehend a number of activities, knowledge and skills which they can use professionally to develop their teaching techniques.

Hammond (2006) postulates that among other things, teacher's knowledge of teaching and of subject matter and qualifications attained in teacher training largely determine the effectiveness of a teacher. On a similar note, Peter (1977) and Ball (1991), argue that training teachers on what to teach enables them to prepare for teaching since subject matter is more than just the delivery of

facts and information, and the teachers general aim of teaching is assist students to develop knowledge, skills, attitudes and values. It is through the teachers' mastery of subject matter that they are able to help their learners to learn and understand the same subject matter. Teachers' conception of narrow knowledge and possession of inaccurate information on the subject matter may result in passing wrong ideas to the learner or may fail to guide the learners in the right direction.

Mastery of subject matter enables the teacher to teach and explain the subject matter content well and make their learners conceive clearly. There are times when learners encounter intellectual concepts too difficult for learners to comprehend which would only take the intervention of a teacher to simplify or give alternatives responses. This ability is influenced by the teachers' knowledge and understanding of the subject matter (Wilson and Wineburg, 1988), which gives them ability to appropriately respond to questions from the learners. Majority of student teachers lack the mastery of subject content which influences their knowledge on what to teach and how effectively to teach it in order effect quality teaching to the learners. Difficulties in mastering subject matter by the student teachers affect the quality of learning as the student teachers go to class less prepared which affect their competency and inadequate knowledge gains by the learners.

7.2. Quality teaching during teaching practice

Teaching practice is designed as part of teachers training aimed at developing competence and confidence of a teacher in handling learners in the classroom. Other than mastering the subject content, student teachers are exposed to the methods and skills of instruction for student teachers' effectiveness and quality teaching during the teaching practice. According to Douglas (2009) teachers lacking basic coursework in educational strategies and methods are found to have difficulties in classroom management and lack teaching strategies required to determine student weaknesses and learning difficulties. Student teachers are prepared for the classroom in the teachers colleges and this entails knowledge of the content of the subjects they are needed to teach and the methods of delivering that content. This enhances quality teaching during the teaching practice. This is echoed by Wise (2000) who argues that effective teachers understand how students learn and how students need to be taught. Researchers postulate that professional development is a factor that relate to teachers quality teaching and that professional development improves pedagogy skills in teachers by providing them with the opportunities to practice new strategies in teaching practice (Hanushek, 1971; Bonner, 2006 and Sparks, 2004). Research further established that learners' motivation to learn improve with teachers implementing instructional strategies attained in teachers colleges (Colbert, Brown, Choi, and Thomas, 2008). This underscores the importance of teaching practice in enhancing quality teaching

7.3. Difficulties experienced by student teachers in mastering the subject content

The teacher trainees face problems in the classroom when they fail to have clear objectives or make earlier plans for the teaching methods. Teachers who fail to conform to the modern methods of teaching and use the traditional methods end up with a bored and stressed class which is a recipe for classroom management problems. Modern teaching methods makes teaching learner centered and

the teacher should prepare the lesson in such a way that there are enough activities for the learner. According to Al Hajj, Kahlot, Obeyed, and Talib (2009), a teacher who plans and occupies learners all the time and does not even give them a break, ends up with an undisciplined classroom. Learners need play time because after all ``all work and no play makes Jack a dull boy``.

The student teachers have a problem of demonstrating the knowledge of the content that learners are supposed to learn. Primary school teachers are supposed to teach all the subjects in the primary curriculum as there is no subject specialization. This makes it almost impossible for the teacher trainee to master the subject content for all the subjects. On the other hand, content in one subject keeps on changing and different textbooks may interpret the content differently. When student teachers begin their teaching practice, familiarizing themselves with the subject matter and its relationship with learners' developments, is a challenge.

Student-teachers face the challenge of using their knowledge of the content to organize curriculum to engage the learners in the content of the subject. This calls for teachers' deep understanding of the subject so as to master the skill of organizing the subject matter to promote learning. Other challenges relate to the institutions and include large classes and lack of enough learning and teaching materials such as chalks, textbooks, teachers' guides, writing materials for the learners.

8.0. Research methodology

The research problem was studied through the use of a mixed method, whereby the researchers began with a qualitative interview of the respondents, followed by a quantitative survey method of a large sample that was used to generalize results for the entire population. The researchers applied semi-structured questionnaire research instrument to collect the primary data. The questionnaire that was composed of both simple open and closed ended questions was administered to the respondents. This instrument was suitable for it helped in the collection of both qualitative and quantitative data at the same time. Since the study adopted mixed methodology and design, mixed data analysis methods applied. Questions that related to quantitative data were analyzed first then followed by the qualitative ones as a statistical rule. For data analysis, the researchers used the analytical tool Statistical Package for Social Sciences (SPSS) Version 21 which is the most current version in the market. Simple descriptive analysis was another analytical tool that the researchers used to analyze qualitative data. In this tool, the responses of the participants were categorized into classes which were coded. Tables and graphs were used to summarize the descriptions which were used later for interpretations and conclusions of the study.

9.0. Results findings and interpretations

9.1. Student teachers' extent of agreement with statements on subject mastery

Table1(see appendix) tabulates the findings based on the respondents' extent of agreement with the statements related to student teachers ability to master all their subjects. Majority of the respondents strongly disagreed that they found it hard to arrange the selected material in proper sequence for the purpose of teaching plan as shown by a mean of 4.7; also the respondents disagreed that they could not think of ideas and information to enrich mastering their subjects as shown by a mean of 4.1 and lastly majority disagreed that they faced difficulties in mastering their subjects as shown by a mean of 3.9.

9.2. Regular Teachers Response to Student Teachers Subject Mastery Ability

The study asked the regular teachers whether student teachers experienced difficulties in mastering their subjects, according to the findings the regular teachers indicated that some students faced difficulties in mastering their subject content. According to them, inability to effectively master a subject one is teaching results in failure to deliver curricula and also does not allow insight into the types of alignment that exist between teacher training, practice and national curriculum objectives. As a result quality teaching is not achieved since much time is wasted and consequently the syllabus is not covered within the predetermined time.

Further, the study asked the student teachers what needed to be improved to make the teaching environment favorable to enhance teaching quality. Majority of the student teachers indicated that the classrooms due to the small size of classrooms to accommodate a big number of students, they suggested that additional classes should be built. In some schools where there were inadequate reading materials, the students suggested that the administration should take the necessary measures required to make reading materials such as books and teaching materials such as chalks, teachers guidebooks and blackboards should be available.

In summary, the subject mastery enables the student-teachers to arrange the selected materials in a good sequence in preparing a lesson plan and student-teachers are able to think of ideas and information as relates to the subjects. The study concluded that the student-teachers' ability to arrange selected materials in a good sequence in preparing a lesson plan for the purpose of teaching plan and ability to think of ideas and information to enrich subject mastery of their subjects enhance quality teaching during teaching practice.

10.0 Discussions

The study established that it is of necessity that teachers master the subject matter before imparting it to learners since it enables the teacher to adequately prepare for content delivery. In their preparations, teachers are required to simplify information in specific subjects for learners understanding, and this is possible if teachers undergo training in colleges. The mastery of subject matter empowers the student teacher with knowledge for critical thinking and the capacity to help their learners to grasp the appropriate knowledge, skills, attitudes and values. The student-teachers knowledge of the subject matter should go beyond the limits of the curriculum for them to be able to explain to the learners, for they can maneuver around it.

The study established that student teachers experienced difficulties in mastering their subjects content which negatively affected their quality of teaching. The inability to effectively master a subject one is teaching results in failure to deliver curricula and also does not allow insight into the types of alignment that exist between teacher training, practice and national curriculum objectives. As a result quality teaching is not achieved since much time is wasted and consequently the syllabus is not covered within the predetermined time.

The study found that the mastery of subject matter enhances the quality of teaching to student-teachers in classrooms. Moreover, the study established that student-teachers were able to set objectives for themselves and their pupils and they were prepared physically and psychologically in their teaching practice. The study concluded that subject mastery coupled with teaching

environment, preparation and planning skills, student-teachers relation with regular teachers, administration and parents during teaching practice enhances quality teaching. The study recommended that a similar study focusing on other institutions in Kenya should be carried out to find out whether the same results would be replicated and further establish the reliability of this study.

11.0 Conclusions

The subject mastery enables the student-teachers to arrange the selected materials in a good sequence in preparing a lesson plan and student-teachers are able to think of ideas and information as relates to the subjects, in order to make an impact in the lives of the learners. The study concluded that the student-teachers' ability to arrange selected materials in a good sequence in preparing a lesson plan and ability to think of ideas and information to enrich subject mastery of their subjects enhance quality teaching during teaching practice. Mastery of the subject matter by the student teacher means that they can simplify the topic into main points that can easily be understood by the learners.

The student-teachers mastery of the subject matter affects the subject content delivery and the understanding by of the learners. Mastery of the subject matter not only influences teacher's ability to teach but also evaluation of learners. Correction of learners' tests and assignments depends on teacher's mastery of the subject matter. Tests and assignments provide feedback to the learners and a form of learning process. If the teacher cannot provide the learner with the correct answer, the process will not provide the best learning experience for learners and the teacher will have the wrong perception of learners.

The researchers established that student teachers have a problem of class control and at the same time noted that classroom management is an important factor in quality teaching. They had routines that consumed the teaching and learning time and could not engage the learners in adequate learning, which affected the quality of teaching and learning. Quality teaching demands that the student teacher is conscious of all that takes place in the classroom.

12.0 Recommendations

- 1) This study recommends that student teachers should have subject mastery .This can be done by using different resource materials handling a particular subject in order to get a variety of information and interrelationships of concept and their usage.
- 2) Further, the study recommends that to enhance quality teaching during teaching practice, student-teachers should take time to plan and thoroughly prepare their lessons before going to class in order to deal with any challenges they may encounter from the learners.
- 3) The ministry of Education, Science and Technology (MoEST) should provide continuous training workshops and seminars for practicing teachers and sponsor them to universities to study to enhance their mastery of subject content

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APPENDIX

Table1: Student teachers' extent of agreement with statements on subject mastery

Statements	5	4	3	2	1	Mean	Std dev
1. I face difficulties in mastering my subjects	29	50	12	5	5	3.9	0.18
2. I cannot think of ideas and information to enrich mastering my subjects	43	48	0	0	9	4.1	0.22
3. I find it hard to arrange the selected material in a good sequence in preparing a lesson plan	57	43	0	0	0	4.7	0.05