

**INVESTIGATING TEACHERS' TEACHING EFFECTIVENESS AND ITS  
IMPLICATION ON QUALITY OF STUDENT'S LEARNING AT  
UNIVERSITY OF HARGEISA**

**BY:  
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**COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCE  
DEPARTMENT OF TEACHER EDUCATION AND CURRICULUM  
STUDIES**

**SEPTEMBER, 2014  
JIMMA UNIVERSITY**

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HARGEISA, SOMALILAND**



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**A THESIS SUBMITTED TO THE DEPARTMENT OF TEACHER EDUCATION AND  
CURRICULUM STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF ART IN CURRICULUM AND INSTRUCTION**

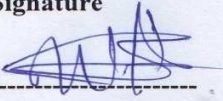
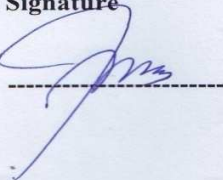
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## DECLARATION

I, the under signed, declared that this thesis is my original work and has not been presented for a degree in any other University and that all sources of materials used for the thesis have been duly acknowledged.

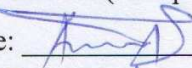
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## **Acknowledgements**

I would like to express my sincere and thanks to my advisors Dr. Carolyn Frances Casale and Ato Abbi Lemma for their guidance, insightful comments, and useful suggestions. Without their unreserved dedication, the development and completion of this study would have been impossible.

I would like to express my deepest thanks and appreciation to University of Hargeisa and Ministry of Education and Higher Education in Somaliland for their genuine cooperation to obtain valuable information for this study.

Moreover, I would like to thank Jimma University for financing my research to be carried out. I also forward my thanks to all teachers and students of University of Hargeisa for their participation in the study and provision of data.

Finally, I would like to extend my heartfelt thanks to my beloved family and my teachers Dr. Mitiku Bekele and Ato Fisseha Mikre for their everlasting support and encouragement throughout my entire study. My thanks goes to my friend Kasahun Tadele for his proof reading and editing of the draft paper and providing me with the necessary information needed during my study.

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## **ACRONYMS AND ABBREVIATIONS**

COL: Common wealth of Learning

ETP: Education and Training Policy

GTP: Growth and Transformation Plan

HE: Higher Education

HEIs: Higher Education Institutions

ICDR: Institute of Curriculum Development and Research

MOE: Ministry of Education

MDG: Millennium Development Goals

OECD: Organization for Economic Co-operation Development

SNEP: Somaliland National Education Policy

STEPS: Strengthening Teacher Education in the Public Sector of Somaliland

TNA: Training Need Assessment

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNICEF: United Nations International Children's Emergency Fund

## **ABSTRACT**

*The purpose of the study was to investigate the teachers' teaching effectiveness and its implications on quality of student's learning at UOH. The study particularly treated the dimension of successful teachers in developing effective teaching methods and conducting learner centered methodology in teaching learning process and creating conducive suitable and healthy environment for learning. Professional skill development, performance evaluation and adaptation to changing environment and factors that affect quality of student learning in higher education. To accomplish this purpose, the study employed a survey method which was carried out at UOH. From the total population of 256 teachers and 2000 students, 102 teachers and 400 students were randomly selected for this study. Four department heads were selected using availability sampling, 6 college deans, and 10 teachers from different faculties were selected by using purposive sampling for interviews. Questionnaire was the main instrument of data collection. Semi structured interview was also utilized to substantiate the data gained through the questionnaire. Descriptive statistics such as percentage, frequency and the Statistical Package for Social Science [SPSS] computer software programs was utilized to analyze the questionnaire. The result of the study revealed that teachers were highly arranging consultation hours, using examples, illustrations and demonstrations to explain and clarify the lessons or contents they teach, and informing the lesson objectives. They were also giving summary at the end of the lesson and using attention gaining activities, ideas, concepts, and devices while teaching. Furthermore, the study revealed that teachers use rewards and reinforcers to motivate students who were performing well and creating situations in which appropriate learning was taking place. It was also noted that teachers were not allowing their students to give constructive feedback on each others' work, etc. Finally, recommendations were drawn based on the above findings. The point of the recommendations include: awareness on the part of the University management and teachers to focus on quality not on quantity through seminars and discussion forums about teaching methodologies teacher's use and their implications on quality of student's learning in order to create and practice effective teaching, to improve their professional growth and instructional practice. Moreover, suggestions were forwarded to alleviate the factors that hindered proper implementation of teaching learning methods. For instance, use of the English language as medium of instruction, lack of motivation (because of teachers are paid least), lack of certification in some short-term training conducted by MoE, etc.*

# CHAPTER ONE

## 1. INTRODUCTION

This chapter deals with background of the study, statement of the problem, objectives of the study, significance of the study, delimitation of the study, definition of operational key terms and organization of the study.

### 1.1. Background of the Study

Teaching encompasses course design, course management and methods of face-to-face teaching, provision of other learning opportunities, assessment and feedback to students. It is concerned with providing students with opportunities to learn. It is an intentional activity and an interactive process involving teachers, students, tasks and the process by which the teacher imparts knowledge, skills, and attitudes to the students (Ellis, 1995:213). More specifically, the purpose of teaching, according to Mckernan (1996:13), is to help students to learn to inquire and to think rationally for themselves critically and reflectively. These definitions of teaching reveal the involvement of two inseparable bodies: the teacher and the students. In each definition, one may realize that teaching is an attempt so as to help students, so that they can acquire skills, attitude, knowledge, beliefs, convictions, or appreciation.

The development of teaching methods has been traced back to ancient Greece. The most long-lived and widespread set of teaching methods are those associated with the study of language and literature (Singh, 1989) cited in MoE (1999:62). Ancient teaching methods emphasized memorization and analogical reasoning, a form of reasoning in which one thing is inferred to be similar to another thing in a certain respect, on the basis of the known similarity between the things in other respect (ibid).

According to Biadgelign (2010:99), teaching methods are general means, manners, ways, procedures or steps by which a particular order is imposed upon teaching or presentation of activities. Methods of teaching also signify a constellation of systematic arrangements and techniques cast to fit curricular elements consisting of educational goals, objectives and outcomes in line with the maturity and readiness level of students.

A more specialized meaning of teaching methods, according to Biadgelign (2010:100), is the sequential or unified arrangement and selection of elements of the curriculum on the basis of their appropriateness to students' developmental levels, and the educational outcomes aimed at,

as well as the mainly different ways and techniques by which these are introduced to the students.

Writing lesson plans is a foremost thing that a teacher must do before executing any teaching strategy in the class. The teaching method should be adopted on the basis of certain; criteria like knowledge of the students, the environment and the set of learning goals decided in the academic curriculum. Students respond differently to different methods of teaching. However, the effectiveness of these efforts is often limited by the recognition that learners respond to strategy training in very different ways, so that the same strategy can be accepted, refused or ignored by different learners, and even by the same learner working in different contexts. Another good reason for learning more about our students' learning styles is the fact that this may lead us to learn more about our own learning styles. Since what we think and do as teachers reflects what we have been thinking and doing as learners, there is a chance that an investigation into our students' learning styles will also turn into a greater awareness of our own teaching styles.

Learning styles are just a subset of a much wider range of individual differences affecting the process of teaching and learning. Age, aptitude, motivation, general intelligence, sensory preferences and socio-cultural conditions are all examples of other important factors influencing the way learners react to classroom instruction. Thus by considering learning styles we are by no means suggesting that they are the only, or even the most important, that influence on the learning process. We might tentatively define a learning style as a learner's general approach to learning, his or her typical and consistent way of reacting to learning tasks. Perhaps one of the ways of clarifying the concept of "learning style" is by contrasting it with other related concepts, like "personality", "learning strategies" and "techniques", (Cornoldi, 1993).

Learning styles is equated with discrete changes between states of knowledge (mental structure/schema) rather than with changes in the probability of response. In general, learning is concerned not so much with what learners do but with what they know and how they come to acquire it.

Knowledge acquisition is described as a mental activity that requires internal coding and structuring by the learner because the learner is very active participant in the learning process.

The way that learner attend to, code, transform, rehearse, store and retrieve information influences learning. Moreover, learners' thinking, beliefs, attitudes, and values are considered to

be influential in the learning process. Eventually, memory has a leading role in the learning process because learning occurs when information is stored in memory in an organized meaningful manner. At the same time, transfer is a function of how information is stored in memory when a learner understands how to apply knowledge in different contexts, and then transfer has occurred, not only the knowledge stored in memory but also the uses of that knowledge.

Additionally, the students have their unique way of demonstrating the knowledge acquired and absorbing the information that is imparted. So, to aid this process of demonstrating the knowledge, the teacher has to adopt a technique that assists the students in retaining the information and increasing their understanding (Education Improvement Commission, 2010).

It is important to use different teaching methods at higher education institutions in the teaching learning process to produce students who are responsible and competent in community services. According to Rao (2003:268) institutions of higher education have main responsibility for equipping individuals with advanced knowledge and skills required for positions of responsibility in government, business and academic areas. Higher education in modern society seeks to preserve, transmit and advance knowledge and is committed to change. Therefore, the importance of teaching as an instrument of change and progress had been underlined by various educational experts, committees and commissions.

According to Daniel (2004:63), higher education institutions are expected to produce graduates who are capable of bringing changes and improvements in the society. With regard to this, teachers in higher education institutions are expected to use different teaching methods, which can enhance the quality of student learning and achievement. This is because quality of students learning and achievement is the issue or the agenda of all educational institutions. Therefore, teaching requires good planning of activities as well as effective teaching techniques to enhance student learning achievement.

The millennium Development Goals (MDG) provides a framework to guide the entire international community in making education for all a reality. Consequently, it is the vision of the international community to collectively employ strategies that will ensure that basic learning needs of all individuals are met through education (World Education Forum, 2000).

Besides the globally accepted importance that the most prime factor influencing student learning in school is the teacher's input, in the case of Somaliland the condition of the extremely slim share of other inputs in relative terms rather increase the importance of the responsibility of the teacher in the teaching learning process. Concerning this, Lunenberg and Orstein (2008) agreed that it also raises the accountability of the management at all levels regarding how to make the best of the scarce resource of teachers.

The most critical factor that affects the quality and quantity of performance is the classroom teacher. The way the teacher is trained and how he/she undertakes his/her daily task determines performance in learning. That is the situation globally; the "how" of teaching is now being given at least as much emphasis as the "what" and "why". Currently, in Somaliland Universities 85% (or 2.2 billion S/Land/Shillings/annum) of the nation's scarce resource of cash is being spent not on textbooks, teaching materials and other teaching learning facilities, but rather as remuneration for teaching staff (Education Improvement Commission, 2010).

The education and training policy of Ethiopia (1994:2) states that the country's education is entangled with complex problems and mode of presentation that can develop student's knowledge, cognitive abilities and behavioral change by level, to adequately enrich problem-solving ability and attitude, are some of the major problems of the education system of the country, probably, we share similar situation in Somaliland. Inadequate facilities, insufficient training of teachers, overcrowded classes, shortage of books and other teaching materials, all indicate the low quality of learning provided. According to Varghest (2004) cited in Tigist (2009:6), quality of learning could be based on various factors such as the level of infrastructural facilities, quality of programs offered, qualification levels of teachers, performance of students in their evaluation while in the university and their performance once on the labor market.

The quality of teaching is determined by the quality of student learning and achievement as the teacher uses appropriate and relevant methods of teaching. In addition, teaching methods vary between different geographical locations and many other aspects. Different teaching methods can be more or less effective depending on the context of the regions and other factors in the student's lives. This is because it does not only affect student's performance but also the community in particular and the society at large. Learners should pass through effective teaching

to serve the society as intended. This can be achieved or mastered if the teacher uses the teaching methods that match the objectives of the content to be delivered (Singh, 1989).

The importance of this study is that it will provide a baseline and evidence for future research, in order to have a better understanding of how teaching methods relate to student academic achievement at University of Hargeisa perspective. It will also contribute to the currently limited research base that focus on those areas, like actors and dynamics within the education field to support students learning in Somaliland.

Hence, the purpose of this study is to investigate teachers' teaching effectiveness and its implications on quality of student's learning at University of Hargeisa.

## **1.2. Statement of the Problem**

Assuring and enhancing the quality of teaching and learning in higher education has become a major concern all over the world (Firdissa, 2009:19). Teaching is also a dynamic profession with emerging knowledge. In order to cope up with the very changing environment, the need for progressively improving and updating teachers' professional skills and knowledge in response to rising technology is unquestionable (Hayes, 1999). Therefore, this expectation can be achieved as higher education institutions prepare students who are well equipped with knowledge, skill, understanding and attitude.

It is unfortunate that some teachers teach students without having much formal knowledge of how students learn. Many lecturers know how they learn best, but do not necessarily consider how their students learn and if the way they teach is predicated on enabling learning to happen. As a result, the learning environment in which learners learn within affects the outcomes or the learning achievement of students.

As certain findings so far witnessed, there is a gap of real implementation of teaching methods by systematically identifying the prevailing challenges as to teachers' perception of relationship between the teaching methods used by teachers and academic achievement of student learning: clear, transparent, and class-controlling structure is poorly practiced by responsible stakeholders at various levels. The absence of clearly defined objectives, shared vision and common understanding among teachers on the teaching methods created room for ambiguity or uncertainty for practices. Collaboration in monitoring and evaluation system is also among the



identified problems. Lack of adequate awareness among teachers and absence of link between teachers, supervisors are also identified (MoE, 2009).

Teaching without using appropriate method affects the quality of student learning and achievement. Students have different ways of understanding and of demonstrating their knowledge. Their exposure to different methods of teaching affects the way they grasp knowledge and their achievement score. When the teacher fails to use effective teaching methods, he/she can not bring quality to student learning, which can enhance the learning achievement.

However, according to some attempts show that many Universities in Somaliland still follow teacher centered methods for every contents. For instance, students complain that their teachers always use lecture, question and answer method. These methods are quite often a choice for teachers because they are familiar methods and give importance to teacher rather than the students. Further, they illustrated that when they try to use student centered method, they do not involve all students. Others also rose that teachers are not taking them to laboratory when the curriculum is better addressed through learning by doing. If these complaints are really happening in the actual teaching learning process, every body can guess the negative consequences they might bring on the quality of learning and the students' academic achievements.

On top of that, many years of civil war in Somaliland has resulted in reduced focus on the quality of education, and there has been little to no tangible research conducted on this area under study as far as the researcher experienced.

It is for these reasons that the researcher then needs to conduct a research on this area since she feels that there is a gap between the need and expectation of students as well as the expectation of MOE & HE with the teachers' teaching methods used in classroom. Therefore, the main purpose of this study is to investigate teachers' teaching effectiveness and its implication on quality of student's learning at University of Hargeisa.

### **1.3. Research Questions**

The study focused on the following basic questions: How does teaching methodology influence student achievement?

1. What are the teaching methods dominantly used by teachers at University of Hargeisa?
2. To what extent are teachers' effective in bringing good practice of teaching at University of Hargeisa?
3. What are the implications of teachers' teaching methods used for quality of student learning at University of Hargeisa?

### **1.4. Objectives of the Study**

#### **1.4.1. General Objective**

The general objective of this study is to see the teachers' teaching effectiveness and its implication on quality of student's learning.

#### **1.4.2. Specific Objectives**

The study will attempt to:

1. Identify the teaching methods dominantly used by teachers at University of Hargeisa?
2. Investigate the extent to which teachers are effective at University of Hargeisa?
3. Identify the implications of teaching methods used for quality of student learning at University of Hargeisa?

### **1.5. Significance of the Study**

The main purpose of this study is to investigate teachers' teaching effectiveness and its implication on quality of student's learning at University of Hargeisa. Accordingly, the result of this study will have the following importance:

- First of all the study will benefit students of Hargeisa University by assessing the teaching methods teachers use in the classroom and identifying the major problems that are currently challenging the quality of learning. This can be done by informing the teachers, department heads and faculty deans on how to improve the problems observed in this study based on the results and recommendations forwarded in the study.

- Secondly, the study will help MoE& HE officials as well as policy implementers to be informed about the practice of teaching methods currently used in the university and identify future training and skills needed for teachers to improve their practices of teaching in order to enhance quality of learning and students achievement.
- Last but not least, the absence of any rigorous study on teaching methods and student's academic achievement at University levels is manifested by a general lack of literature in the study area. Thus, it would be necessary to conduct such studies in Hargeisa University with a view of understanding teaching methods, and student's academic achievements so that other researchers will be benefited from this study since the finding of the study can serve as a source and give some insight for further research in the area of the study.

## **1.6. Delimitation of the Study**

The main purpose of this study is to investigate teachers' teaching effectiveness and its implication on quality of student's learning at University of Hargeisa. Thus, this study is geographically delimited to University of Hargeisa in Somaliland. In fact, there are five public and seven private Universities in Somaliland. To make the study more manageable and feasible, all the other Universities were excluded; the researcher did not include all the colleges and faculties since the topic needs a detail and in-depth assessment. Therefore, more emphasis will be given to four colleges including the college of education faculty of social science, college of law, college of business administration and college of science & technology.

This is done because of two main reasons: first, the researcher believed that it is convenient to manage it and tackle the problem with some pattern of uniformity regarding the role played by teachers as instructional designers since all are working in the University. Second, the researcher has good experience related to the study area. In addition, there are several reasons that the researcher only addressed University of Hargeisa. For example, this University is the only Public University that is found under the area of study, there are other Universities in the city but all of them are private Universities currently established while still some of them are under process and they have strings attached to outside the country. At the same time, we cannot make inference of the finding to other Universities because they might have similar problems but the challenges that they are facing are totally different.

Conceptually, the study is delimited on investigating the teaching methods used by teachers and students' academic achievement. A particular focus will be given to teaching methods teachers use and students academic achievement with the main research goal to improving student's performance. There are different reasons to focus on these major variables. The first reason is that the teacher is the most crucial factor affecting students' performance in teaching and learning which needs to be studied in details to come up with a good conclusion. The other reason is that the researcher observed lack of study on these aspects where they are very essential in improving students' academic achievement.

## **1.7. Operational Definition of Key Terms**

**Teaching Methods:** It is the way the teachers deliver an instruction to the students or it is the way both the teacher and students interact with one another for the purpose of learning.

**Teaching Effectiveness:** Is the teachers' successfulness by playing their roles or making students learning effective.

**Quality:** Is the level of fitness for purpose of students' needs and priorities as a result of learning which can be measured by establishing an acceptable criteria and standards of good performance

**Quality of learning:** the level or quality of knowledge, skills and attitude those are gained by student or offered by the teacher with the fulfillment of specification or stated outcomes.

**Implication:** Is the inference made from methods of teaching on quality of student learning or the logical connection between methods of teaching and quality of student learning.

## **1.8. Organization of the Study**

This study is organized into five chapters. The first chapter comprises background of the study, statement of the problem, basic research questions, objective of the study, significance of the study, delimitation of the study, operational definition of key terms and organization of the study. In the second chapter, a review of related literature is discussed in details. In the third chapter, the research methodology is presented containing the research design, research method, source of data, study area and population, sample size and sampling technique, validity and reliability of the study, instrument of data collection, data collection procedure and data analysis. The fourth chapter is focusing on the presentation, analysis and interpretation of data. The last chapter is presenting summary of the major findings, conclusion and recommendations.

## **CHAPTER TWO**

### **2. REVIEW OF RELATED LITERATURE**

#### **2.1 Concept and Definition of Teaching**

The transmission of worthwhile activities, experience, findings, and achievements or in short, cultural heritages of one generation to the next cannot be done haphazardly. That is, the skills needed to perform the functions or roles of the public (community) come systematically through great effort, commitment and diligence. Such activities, according to Brown and his associates (1992:12), have to be taught and acquired effectively and efficiently. This grand reason is the very cause for the emergence and use of the term teaching.

Teaching is defined in different ways by different educators. These definitions range from being traditional (the teacher is the supplier of knowledge, skills and experiences) to being modern (the teacher is the facilitator of student learning). Traditionally, the role of the teacher is seen as a purveyor of information; the teacher has been the source of all knowledge. This suggests the picture of student sitting in rows in front of the teacher who is talking and transmitting information to them, while they listen passively (Reece and Stephen, 2003:13). Nowadays, however, the teacher is the facilitator, a person who assists students to learn for themselves (ibid). In short, teaching can be adjusted in a way to suit student requirements and abilities. Some of the definitions of teaching are written hereunder.

To teach is to give information, to show a person how to do something, to give lessons in a subject. Teaching is important knowledge or skill (Dunkin, 1988:12). On the other hand, teaching may be regarded as providing opportunities for students to learn. It is an interactive process as well as an intentional activity (Brown and Attkins, 1988:13).

Teaching is also defined as an act of providing, directing, checking and following-up activities to facilitate formal or informal learning. It is a collection of practical activities aimed at bringing about learning or understanding. Hence, it is a task word rather than an achievement word (Azeb, 1984:74). In this case, teaching involves three inseparable elements, namely the teacher, the learner and the subject matter or learning experiences.

According to Jacobsen et al (1993:37), teaching can be described as giving instructions to or sharing one's knowledge with another person. It is a means for providing students with the knowledge and skills they need to function successfully in the world. In a very practical sense,

teaching is diagnosing and prescribing. Teacher diagnoses what the specific learning needs (or deficiencies) are, and then prescribe the particular strategies and activities to meet them.

According to Azeb (1984:75), teaching is also defined as the aspect of instructional process concerning teacher's activity including all actions of a teacher for evoking and leading the process of learning and with part of the indivisible unity of teaching and learning. It carries three main functions namely imparting subject matter and respective activities of students, helping the students in learning, assisting, providing techniques of learning, and leading the instructional process including planning, steering, checking and evaluating. She also notes that teaching is the interaction of the teacher with a group or individual students.

A more comprehensive definition of teaching is provided in terms of its purposes. For instance, it may be regarded as a process that facilitates learning. In this process, the teacher has an important role to play because he/she acts like a catalyst, actively stimulating learning (Farrant, 1988:13). More specifically, the purpose of teaching, according to McKernan (1996:13), is to help students to learn to inquire and to think rationally for themselves critically and reflectively. These definitions of teaching reveal the involvement of two inseparable bodies: the teacher and the students. In each definition, one may realize that teaching is an attempt/activity so as to help students so that they can acquire/gain or change some skills, attitude, knowledge, beliefs, convictions, or appreciation.

## **2.2. Effective Teaching**

Effective teaching can be termed or named in different ways by different scholars. For instance, it may be success in teaching for Monroe (1956), or good teaching for Zaborick (1986), or effective teaching for Perrot (1986). In whatsoever name that effective teaching may be called, it is difficult to find a single, precise, and consistent or acceptable definition for it.

There is much debate within the higher education community on how teaching effectiveness may be defined (Sajjad, 2004:3). For instance, Centra (1993:42) defined effective teaching as “that which produces beneficial and purposeful student learning through the use of appropriate procedures”.

Braskamp and Ory (1994:40) by including both teaching and learning in their defined effective teaching as the “creation of situations in which appropriate learning occurs, shaping those

situations is what successful teachers have learned to do effectively”. Cabrera and La Nasa (2002:3) defined effective teaching is one that produces demonstrable results in terms of the cognitive and affective development of the students.

Effective teaching is now understood to involve a process of facilitating learning rather than being the simple transmission of knowledge from the teacher to the learner. The roles that teachers need to take to facilitate learning are outlined below (Smith and Blake, 2005:2).

- Placing a strong emphasis on the workplace to provide a meaningful context for learning where problems are found by the context of the workplace.
- Encouraging interactive approaches to learning activities to allow learners to apply and interact equally with the thinking and performing aspects of learning.
- Establishing learning outcomes that, are clear in their intent to achieve ‘work-readiness’ for learners.
- Giving learners the opportunity to collaborate and negotiate in determining their learning and assessment processes.
- Understanding learners as ‘co-producers’ of new knowledge and skills.
- Recognizing that the prior learning and life experiences of learners are valuable foundations for constructing new knowledge and skill sets (although they can also impose limitations)
- Valuing the social interactions involved with learning in groups.

However, the type of teaching that is effective equips teachers with professional skills that will give them confidence as they execute their roles, produce a cadre of dedicated professionals equipped with the right skills and attitudes to inspire and foster learning and acquiring of critical skills in others, improve the general knowledge among members of the teaching profession. Therefore, the Somaliland government plans to employ a two pronged strategy to improve teacher education:

1. A rigorous development of pre-service teacher education.
2. Strengthening of in-service programs both in numbers and quality.

The government plans to put in strategies for improving access to teacher education and for improving the participation of women through the encouragement of more women at the trainers' level to serve as role models for girls (SNEP, 2006).



To make teaching effective, the teacher should be effective. According to Borich (1988), effective teachers have the following characteristics or they are distinguished from ineffective teachers by the following peculiar characteristic features.

An effective teacher should inform learners of the lesson objectives, provides learners with an advance organizer (place a lesson in perspective of past and / or future), check for task-relevant prior learning at beginning of the lesson, give directives slowly and distinctly, know ability levels and teaches at or slightly above learners' current level of functioning, use examples, illustrations, and demonstrations to explain and clarify, and provide review or summary at the end of each lesson (ibid pp.298)

An effective teacher also uses attention gaining devices (begin with a challenging question, visual, example ), shows enthusiasm and animation through variation in eye contact, voice and gestures, varies mode of presentation (lectures, asks questions, independent practice), uses a mix of rewards and reinforces (extra credit, verbal praise, independent study), incorporates student ideas or participation in some aspects of the instruction, and varies types of questions (divergent, convergent and probes to clarify, to solicit, to redirect) (ibid pp.301).

### **2.3. Definition of Teaching Methods**

Before defining what teaching methods are, it is important to describe what method is. As MoE (1999:61) states, the term "method", which was taken from Latin word simply implies mode or way. The general meaning of method, according to Azeb (1984:90), is an orderly planned progress towards a given or a coordinated system of principles for the performance or conduct of practice. It enables the teacher to select appropriate learning experiences, create appropriate environment, guide and direct learning activities assess and evaluate progress and bring about learning or understanding systematically without unnecessary waste. Therefore, from this we can understand that, in the world of education, method of teaching is the mode or the way by which a subject matter is communicated in a way that it could properly achieve the intended outcome or objective.

Teaching methods are general means, manners, ways, procedures, or steps by which a particular order is imposed upon teaching or presentation of the activities (Biadgeln, 2010:99). In clearer terms, teaching methods refer to construction of 'how teaching ought to be done'. On top of this, teaching methods may be viewed as a series of discrete steps that the teacher uses or takes so as

to achieve the predetermined instructional objectives (ibid) Similarly, Biadgelign (2010:99) notes that teaching is the rational ordering and balancing in the light of knowledge and purpose, of the several elements that enter into the teaching learning process. To Obanya, Shabani and Okebukela (1996:17) teaching methods also signify constellation of systematic arrangements and techniques cast to fit curricular elements consisting of educational goals, objectives and outcomes in line with the maturity level of students.

A more specialized meaning of teaching methods, according Biadgelign (2010:100), is the sequential or unified arrangement and selection of elements of the curriculum on the basis of their appropriateness to students' developmental levels, and educational outcomes aimed at as well as the mainly different ways and techniques by which these are introduced to the students.

#### **2.4. Historical Development of Teaching Methods**

Current learning theories have roots that extend far into the past. The problems with which today's theorists and researchers grapple and struggle are not new but simply variations on a timeless theme: Where does knowledge come from and how do people come to know? Two opposing positions on the origins of knowledge-empiricism and rationalism-have existed for centuries and are still evident, to varying degrees, in the learning theories of today. A brief description of these views is included here as a background for comparing the "modern" learning view points of behaviorism, cognitivism and constructivism. Therefore, teaching methods which relate to learning theories beginning from the 20th century are discussed below:

The way we define learning and what we believe about the way learning occurs has important implications for situations in which we want to facilitate changes in what people know or do. Learning theories provide instructional strategies and techniques for facilitating learning as well as a foundation for intelligent strategy selection. Yet many designers are operating under the constraints of a limited theoretical background. This paper is an attempt to familiarize designers with three relevant positions on learning (behavioral, cognitive, constructivist and social-constructivist) which provide structured foundations for planning and conducting instructional design activities. Each learning perspective is discussed in terms of its specific interpretation of the learning process and the resulting implications for instructional designers and educational practitioners.

Behaviorism equates learning with changes in either the form or frequency of observable performance. Learning is accomplished when a proper response is demonstrated following the presentation of a specific environmental stimulus. The key elements are the stimulus, the response, and the association between the two. Of primary concern is how the association between the stimulus and response is made, strengthened, and maintained. Behaviorism focuses on the importance of the consequences of those performances and contends that responses that are followed by reinforcement are more likely to recur in the future. No attempt is made to determine the structure of a student's knowledge or to assess which mental processes it is necessary for them to use (Winn, 1990). The learner is characterized as being reactive to conditions in the environment as opposed to taking an active role in discovering the environment. Therefore, instruction is structured around the presentation of the target stimulus and the provision of opportunities for the learner to practice making the proper response.

In the behavior of organisms, an experimental analysis (Skinner, 1938) first presented his version of instrumental conditioning to the world, thereafter known as operant conditioning. From that point in time, behaviorism and the name B. F. Skinner were forever intertwined.

In the late 1950's, learning theory began to make a shift away from the use of behavioral models to an approach that relied on learning theories and models from the cognitive sciences. Psychologists and educators began to de-emphasize a concern with overt, observable behavior and stressed instead more complex cognitive processes such as thinking, problem solving, language, concept formation and information processing (Snelbecker, 1983).

Cognitivism, like behaviorism, emphasizes the role that environmental conditions play in facilitating learning. Instructional explanations, demonstrations, illustrative examples and matched non-examples are all considered to be instrumental in guiding student learning. Similarly, emphasis is placed on the role of practice with corrective feedback. Cognitive theories stress the acquisition of knowledge and internal mental structures; they focus on the conceptualization of students' learning processes and address the issues of how information is received, organized, stored, and retrieved by the mind. Additional key elements include the way that learners attend to, code, transform rehearse, store and retrieve information. Learners' thoughts, beliefs, attitudes, and values are also considered to be influential in the learning process

The philosophical assumptions underlying both the behavioral and cognitive theories are primarily objectivistic; that is: the world is real, external to the learner. The goal of instruction is to map the structure of the world onto the learner (Jonassen, 1991). A number of contemporary cognitive theorists have begun to question this basic objectivistic assumption and are starting to adopt a more constructivist approach to learning and understanding: knowledge: "is a function of how the individual creates meaning from his or her own experiences"

Constructivism is not a totally new approach to learning. Like most other learning theories, constructivism has multiple roots in the philosophical and psychological viewpoints of this century, specifically in the works of Piaget, Bruner, and Goodman (Perkins, 1991). In recent years, however, constructivism has become a "hot" issue as it has begun to receive increased attention in a number of different disciplines, including instructional design (Bednar et al., 1991).

Constructivists do not share with cognitivists and behaviorists the belief that knowledge is mind-independent and can be "mapped" onto a learner. Constructivists do not deny the existence of the real world but contend that what we know of the world stems from our own interpretations of our experiences. Humans create meaning as opposed to acquiring it. Since there are many possible meanings to learn from any experience, we cannot achieve a predetermined, "correct" meaning. Learners do not transfer knowledge from the external world into their memories; rather they build personal interpretations of the world based on individual experiences and interactions.

Eventually, social-constructivism is a sociological theory of knowledge that applies the general philosophical constructivism into social settings, wherein groups construct knowledge for one another, collaboratively creating a small culture of shared artifacts with shared meanings. When one is immersed within a culture of this sort, one is learning all the time about how to be a part of that culture plays a large role in the cognitive development of a person (Weber, 2008:50).

Social constructivism has been studied by many educational psychologists, who are concerned with its implications for teaching and learning. Social constructivism extends constructivism by incorporating the role of other actors and culture in development. In this sense it can also be contrasted with social learning theory by stressing interaction over observation.

An instructional strategy grounded in social constructivism that is an area of active research in computer-supported collaborative learning. This strategy gives students opportunities to practice 21st-century skills in communication, knowledge sharing, critical thinking and use of relevant

technologies found the workplace. Additionally, studies on increasing the use of student discussion in the classroom both support and are grounded in theories of social constructivism. There is a full range of advantages that results from the implementation of discussion in the classroom. Participating in group discussion allows students to generalize and transfer their knowledge of classroom learning and builds a strong foundation for communicating ideas orally. Many studies argue that discussion plays a vital role in increasing student ability to test their ideas, synthesize the ideas of others, and build deeper understanding of what they are learning (Paul, 1998:23).

The oldest and still the most powerful teaching tactic for fostering critical thinking is Socratic teaching. In Socratic teaching we focus on giving students questions, not answers. We model an inquiring, probing mind by continually probing into the subject with questions. Fortunately, the abilities we gain by focusing on the elements of reasoning in a disciplined and self-assessing way, and the logical relationships that result from such disciplined thought, prepare us for Socratic questioning (Socratic, 1993:105).

As a tactic and approach, Socratic questioning is a highly disciplined process. The Socratic question acts as the logical equivalent of the inner critical voice which the mind develops when it develops critical thinking abilities. The contributions from the members of the class are like so many thoughts in the mind. All of the thoughts must be dealt with carefully and fairly. By following up all answers with further questions, and by selecting questions which advance the discussion, the Socratic questioner forces the class to think in a disciplined, intellectually responsible manner, while yet continually aiding the students by posing facilitating questions.

However, the Socratic Method is methods of hypothesis elimination, in that better hypothesis are found by steadily identifying and eliminating those that lead to contradictions. The Socratic Method search for general, commonly held truths that shape opinion, and scrutinizes then to determine their consistency with other beliefs. The basic form is a series of questions formulated as tests of logic and facts intended to help a person or a group to discover their beliefs about some topic, exploring the definitions or seeking to characterize the general characteristics shared by various particular instances (Overholser, 1993).

There is another old method of teaching called "The Montessori Method of Education", developed by Dr. Maria Montessori, is a child-centered educational approach based on scientific observations of children from birth to adulthood. Dr. Montessori's method has been time tested,

with over 100 years of success in diverse cultures throughout the world. It is a view of the child as one who is naturally eager for knowledge and capable of initiating learning in a supportive, thoughtfully prepared learning environment. It is an approach that values the human spirit and the development of the whole child, physical, social, emotional, and cognitive (Mario, 1996:35).

The Montessori Method of teaching aims for the fullest possible development of the whole child ultimately preparing him for life's many rich experiences. Complemented by her training in medicine, psychology and anthropology, Dr. Maria Montessori (1870-1952) developed her philosophy of education based upon actual observations of children. Children pass through sensitive periods of development early in life. Dr. Montessori described the child's mind between the time of birth and six years of age as the "absorbent mind". It is during this stage that a child has a tremendous ability to learn and assimilate from the world around him, without conscious effort. During this time, children are particularly receptive to certain external stimuli. A Montessori teacher recognizes and takes advantage of these highly perceptive stages through the introduction of materials and activities which are specially designed to stimulate the intellect.

According to Singh (1989) cited in MoE (1999:62), the development of teaching methods has been traced back to ancient Greece. The most long-lived and wide spread set of teaching methods are those associated with the study of language and literature. Ancient educational methods emphasized memorization and analogical reasoning, a form of reasoning in which one thing is inferred to be similar to another thing in a certain respect, on the basis of the known similarity between the things in other respects.

Singh (1996) also notes that the scientific approach to teaching methods began with the emergence of educators like Comenius, Pestalozzi, Froebel, and Herbart. A brief summary of their contributions to methods of teaching is described as follows:

Comenius (1592-1670) highlighted that: experience is a strategy point; nature can contribute to methods; content should be in relation to the learner's development; and teachers should encourage discovery learning. Pestalozzi (1746) emphasized teaching methods should be in accordance with the development pattern of children's growth. Froebel (1782-1852) stressed the self-activity of the child. Herbart (1776-1841) propounded five instructional activities associated with teaching methods: preparation, presentation, association, assimilation, and application.

## **2.5. Considerations in Choosing Teaching Methods**

Teachers who are able to identify what their respective students are expected to acquire/master, confidently can select what type of method to employ. That method or the combination of the different methods for that particular task or topic, therefore, can be regarded as the best. According to Ramsden (2003:54), the choice of a given teaching method should depend on a variety of elements. They include the age and developmental level of the students, what the students already know and need to know to succeed with the lesson, the subject-matter content, objective of the lesson, the available people, time, space and material resources, the knowledge and skills of the teacher about teaching methods, learning theories and physical setting, students' background knowledge, environment and learning goals.

Research evidence regarding the best method of teaching reveals that there is no single, reliable, multi-purpose method which can possibly be considered as the best. For the betterment of the teaching-learning process and thereby for the attainment of the instructional objectives, therefore, teachers are advised to approach their teaching in a variety of ways; they have to use the combination of different methods of teaching (Biadgelign, 2010:108).

The combination of different methods of teaching, nonetheless, cannot be done by commonsense. There are a number of factors that should be considered. Since what is important, in the final analysis, according to Davies (1981:45), is the requirement of the task to be mastered. That is, instructional objectives have to be determined prior to trying to select and combine the variety of methods of teaching. Supporting this, Biadgelign (2010:109) notes that teachers have to have a clear image/ conception about the distinctions of the following questions when planning to select teaching methods. Does the task/topic to be taught need the real environment? Does the task/topic to be taught need teacher's explanation? Teacher's interpretation? Does the task/topic to be taught involve debatable ideas? Issues? Concepts? And does the task/topic be left to students to do it for themselves?

Similarly, such a process of combination, according to Ellington (1996:109), should begin with an examination of the characteristics of the target population and the topic area to be covered, followed by an analysis of the existing skills of the students. The next step should be the formulation of a clear set of educational objectives or outcomes preferably couched in behavioral terms so that both teachers and students are clear as to what the latter are expected to achieve. The characteristics of the students, and the background and preferences of teaching staff

involved should be given as to what particular mix of teaching/learning methods would be most suitable for helping the students to achieve these various objectives.

According to Borich (1988:22), before choosing a certain type of instructional method, a teacher has to consider the following determining factors such as stated instructional objectives, content of instruction, characteristic of learners, specific conditions of instruction (time, facility, class size, resources, etc.), and teacher's characteristics.

Thus, there are many types of teaching methods, depending on what information or skill the teacher is trying to convey. When teachers decide on their respective methods, they need to be flexible and willing to adjust their styles according to their students and the content. Student success, therefore, is largely based on effective teaching methods.

## **2.6. Classification of Teaching Methods**

There are different basis of classifications of teaching methods. For instance, according to Tewodros and Admasu (2000:35), methods of teaching are classified as traditional and modern depending on the nature of the involvement of the students and the teacher, the consideration of educational teaching objectives, and their modernity or time in use.

According to Biadgelign (2010:107), classifications of teaching can be done based on different criteria; for instance, definitions, roles, number of students in the teaching learning process, or based on resources to be used. Accordingly, types of teaching methods can be seen from four general perspectives: mass instruction methods (lecture and demonstration methods); active learning methods; individualized teaching methods and group learning methods.

### **2.6.1. Mass Instruction Methods of Teaching**

Mass instruction, according to Ellington (1996:110), is of course, as old as education itself, with the lecture and expository lesson being the dominant instructional techniques in virtually all sectors of formal education and training throughout recorded history.

As to McKimm and Jollie (2007:1), in mass instruction, the role of the teacher is controlling the instructional process. That is, s/he has a traditional role in teaching students. To Ellington (1996:110), it was, however, only in the period following the Second World War that a systematic effort was made to improve the efficiency and cost-effectiveness of the method by using the new types of hardware that were starting to become available. By such means, it was



hoped that more people could be educated or trained without necessarily increasing the number of teachers or trainers, and that the overall effectiveness of the teaching process could be improved. Some important outcomes were the development of basic mass instruction tools like the overhead projector and 35mm slide projector, and the increasingly widespread use of 'hard ware-based' techniques such as film, radio, television broadcasting and closed-circuit television. Some of the main teaching methods that fall under the general heading of mass-instruction method include lecture and demonstration (Biadgelign, 2010:113).

### **2.6.1.1. Lecture method**

The lecture method, although considered by modern educators as traditional or outdated, is still one of the most widely used methods of teaching, especially in post secondary institutions (Brown, et al. 1992). Supporting this, Brown and Atkins (1988) note that lecture method is widely used in the twenty-first century. Besides, despite the many criticisms regarding the lecture method, when carefully planned and skillfully delivered, it is pleasurable to students and teachers.

Lecture refers to a verbal or oral presentation of facts, ideas and concepts where the teacher addresses learners without interruption and complete utilization of teaching time. It is an effective way to introduce new information or concepts to a group of learners. The lecture method is primarily used to build upon the learner's existing base of knowledge (Brown, 1988:8).

The most defensible function, according to Azeb (1984:215), of the lecture in the areas of the humanities and the social sciences is its use as a means of synthesizing a mass of knowledge, facts and ideas that it would be impossible for the student to master for himself, since he would not have the capacity to discriminate between relevant and irrelevant, sound and unsound, and to organize what was worth organizing.

The lecture method has two forms: the formal and active (informal) lecture. The formal lecture method is virtually uninterrupted monologue taking occasional questions. It is almost an address to the content. It emphasizes on 'chalk and talk' and can be used for any size of groups. The informal or active lecture method is a lecture period including mini-sessions of student activity. It is a gapped lecture. That is dividing the lecture into small sections and gives the students an

activity to complete between each section. This allows the students to absorb and manipulate the material given to them (Cox, 1994:28).

Generally, the lecture method of teaching, according to Brown et al as cited in Biadgelign (2010:114), is a process of delivering or imparting verbally a body of knowledge, new experience, contents, or subject matter to students based on pre-planned , well-organized plan ( the periodic lesson plan). That is, the teacher presents ideas or concepts, develops and evaluates them, and summarizes the main points. Supporting this, Kizlik (2010:66) notes that, in this method the teacher is considered as an authority and a model in determining the content and organization of the course to a great extent. Moreover, the students are merely recipients of the information about the content. The lecture method of teaching has both advantages and disadvantages. They, according to Brown et al (1992), Ellington (1996) and Cox (1994:67) are summarized as follows.

### **Advantages**

Undoubtedly, one of the reasons why the lecture has retained its dominant place in the education and training scene is that the method appears to be highly cost-effective, since it enables high student/staff ratios to be achieved.

Another point in the lecture's favor is that it appears to be just as effective as other teaching methods at conveying information when well done. The majority of studies which have compared the lecture method with other methods designed to develop lower-cognitive skills have not been able to detect any difference that is statistically significant, provided that subsequent reinforcement of the material covered in the lecture takes place.

It has a high inspirational and motivational value. Therefore, it is an effective method for generating interest and appreciation on the part of learners. It also supplements and enriches materials found in students' textbooks. The teacher has complete control over the choice of knowledge that the students learn. That is, the teacher can present exactly what he/she wants in a way he/she wants.

It results in economy of time and effort. This is for the very reason that students' time and efforts are not wasted while trying to discover, search, and solve things for themselves. This is for the very reason that everything will be done by the teacher. On top of this, when the teacher has

short of time so as to accomplish the specified task on a certain limited period of time, the lecture method will be the remedy.

It can be used to teach large classes. That is, as far as the teacher's presentation is audible to all students and at the same time if students do not have hearing impairments and as far as the capacity of the lecture room is suitable for this purpose, it is possible to teach a number of students even more than one hundred at a time.

It is effective to introduce new information, concepts, and principles in which students do not have sufficient previous experience; enables students to have the benefit of correct information from the teacher; and ensures systematic acquisition of knowledge if the teacher is effective in presenting the lesson.

### **Disadvantages**

One aspect of the lecture method which causes some concern is that its effectiveness is inevitably very dependent on the skills of the individual lecturer. The ability to organize and explain a topic does not come naturally except to a fortunate few individuals, while fewer still are able to capitalize on their personal charisma in order to 'capture', their audiences.

In addition, the result of effectiveness of a lecture relies heavily on the ability of the students to learn from it. Here, effective study skills are extremely important, and it may well be necessary to make a conscious effort to inculcate good study techniques before the full educational potential of the lecture methods is realized. Recent research has shown that the amount of material remembered by students immediately after a lecture is comparatively low, ranging from a maximum of roughly 40% to a little as 5% in some cases.

The lecture method is best suited for achieving objectives of the lower-cognitive type for dealing with basic facts and principles. It is not particularly effective in achieving higher-cognitive objectives. It makes students to be passive recipients of ideas and does not encourage inquisitive or creative mind. It also does not provide students with enough opportunities to practice their oral communication skills.

Students' understanding is rarely assessed during the lecture for they are not encouraged to participate or respond. Besides, the teacher takes the leading role in the lecture method of teaching. Due to this, the teacher is limited in his/her judgment regarding the understanding of his/her students.

The lecture method has very little scope for students' activity, it is mostly one-way communication; it does not guarantee the relative permanency of learning i.e., there is high probability of forgetting; it is against the principle of "active learning or learning by doing"; and it is less effective in stimulating students' interest.

### **2.6.1.2. Demonstration Method (Show and Tell)**

As to Walkin (1990:56), demonstration is a practical display or exhibition of the process and serves to show or point out clearly the fundamental principles or actions involved. Brown and his associates (1992) described demonstration as an audio-visual explanation, emphasizing the important points of a product, a process or an idea. It is basically an activity which combines telling, showing, and doing so as to facilitate the understanding level of students.

Demonstration is similar to the lecture in its direct communication of information from the teacher to students. It also involves a visual approach to examine processes, information and ideas. It allows for students to observe real things and how they work. In many cases, a teacher demonstrates a certain action or activity prior to having the students perform the activity individually (Brady, 1985:64). To carry out effective demonstrations, teachers should carefully plan the demonstration, practice the demonstration, develop outline to guide the demonstration, make sure everyone can see the demonstration to focus on attention, ask and encourage questions, and plan a follow-up to the demonstration (ibid).

Although the emphasis in demonstration is learning by observing/watching the activities of the teacher, it shall be followed by doing. That is, students have to get a chance to practice and drill on different exercises. In any case, the demonstration method is a dramatic performance; the teacher being the actor and students the audience (Badgeln: 2010:148).

The demonstration method of teaching, like that of the lecture method has strengths/advantages and weak points/disadvantages. Some of the most important ones, according to Brown and his associates (1992) cited in Badgeln (2010:150) and Walkin (1990: 57) are summarized as follows:

## **Advantages**

This method is important because the students are made to watch the teacher's demonstration attentively; it trains them to be good observers. Ambiguities or complexities or hypothetical concepts will become clear when they are explained in conjunction with an appropriate showing or demonstration. Hence, demonstration method can stimulate or initiate thinking and promote the formulation of concepts, understandings, and generalizations.

It is an effective means as an introduction to skill learning. Recall the saying "practice makes perfect". It is most appropriate when teaching students how to operate, assemble or disassemble a machine or some other pieces of equipment, etc.

It enables the students to acquire knowledge in the firsthand form; it connects theory with practice; it fosters creative thinking; it enables learners to develop a positive self-concept and self-confident; it acquaint learners with subject matter knowledge and life-long skills; it trains students to be good observers; and it promote understandings, and generalizations.

## **Disadvantage**

Active participation is reduced for students and they mainly act as observers. When the size of the class is large, particularly those students who sit at the back fail to hear what the teacher is telling them about and at same time, they may fail to clearly observe what the teacher is showing particularly when the thing being demonstrated is so small, or may involve complexities. In short, problems of audibility and visibility may arise.

Because the teacher can spend most of his/her time while showing, telling, and doing, he/she may run short of time to examine students' understanding. That is difficult to evaluate thoroughly students' understanding during demonstration. It always, asks teachers to provide a 'model' for the students to follow. It provides less opportunity for children to discover things or solve problems on their own.

### **2.6.2. Active Learning Methods**

Active learning is an instructional strategy in which students construct meaning, often working in collaboration with other students. In this strategy, knowledge is directly experienced, constructed, acted up on or revised by the learners. So, it is a multi-directional learning experience in which learning occurs in a teacher to student, student to teacher, and student to student manner (Morable, 2009:49).

Prince (2004:1) defined active learning as any instructional method that engages students in the learning process. It requires students to do meaningful learning activities and think about what they are doing. The core elements of active learning are student activity and engagement in the learning process. Supporting this, Biadgelign (2010:153) have noted that active learning methods give much chance to the student regardless of the size of students involved in the learning session.

From this, one can understand that, in active learning, the teacher has a facilitative role. The facilitative teacher plans fun, interactive learning activities; shares information and then lets participants practice what they have learned; encourages questions and discussions; and motivates participants by helping them understand how they can use what they have learned. According to Biadgelign (2010:153), active learning methods include inquiry, discovery and laboratory methods.

### **2.6.2.1. Inquiry Method**

The inquiry method of teaching according to Biadgelign (2010:155), can be employed to any subject area most of the time, at higher institutions and at secondary school. Inquiry method can be seen, according to Joyce and Weil (1980) as cited in Dunkin (1988:63), as a process for interpreting of unusual, unknown, or problematic situations or phenomenon. In this method, students inquire into the nature of a problem with a view of finding some answers why the problem exists.

The assumption behind using this method is that students will acquire or gain a firm grasp or understanding of the subject matter by learning that all knowledge is tentative and that, as tentative knowledge is disconfirmed, it will be replaced with new knowledge. This is due to the fact that what was true yesterday could be false today or tomorrow. Hence, teachers and students have to strive, have to dig, have to search, or in short have to inquire for the truth in the process of teaching and learning. Supporting this, Biadgelign (2010:154) states that students are expected and have to realize that statements about phenomena are based on rigorous investigations

The success or failure of the method will very much depending on the competence, enthusiasm, and confidence of the teacher. That is, like other methods of teaching inquiry have both good and bad qualities. These, according to Dunkin (1988:76), Brown and his associates (1992:43), Brady (1985:63), and Joyce and Weil (1980) cited in Biadgelign (2010:153) are summarized as follows:

## **Advantages**

This method tends to generate enthusiasm and interest in the students. Since students find things for themselves, they remember them better. Some researchers maintain that the method enhances critical thinking and skills of scientific investigation. Inquiry teaches the ways, steps, or procedures that may be employed in research and in inquiry activities. The how of finding answers to problematic situations can be facilitated or enhanced.

It permits teachers to model the values and attitudes essential to an inquiring mind such as in reasoning skills (observing, collecting, and organizing data; identifying and controlling variables, formulating and testing hypothesis), learning autonomy, verbal expressiveness, tolerance for ambiguity, and persistence; etc.

In this method, both the lesson content and the process of investigation are taught at the same time. Using the process of inquiry provides opportunities for students to learn and practice skills associated with critical thinking.

## **Disadvantage**

This method is time consuming and it may not be possible to use it in all situations at all times, because some of the concepts, issues, ideas, or others may merely be explained, discussed, or lectured in class. Some researchers maintain that it is more suitable for intuitive and creative children.

### **2.6.2.2. Discovery Method**

The discovery method, according to Bruner, Wittrock and Cronbach as cited in Brown and his associates (1992:58), has been defined in different ways. Sund and Trowbridge, for instance, take the view that discovery occurs when an individual is involved mainly in using his/her mental processes to discover some concept or principle.

Similarly, Brown (1992) cited in Biadgelign (2010: 158) notes that discovery method is the mental assimilation by which the individual grasps a concept or principle resulting from physical and mental activity. MoE (1999:74) also notes that “discovery is a process of search and selection” “what is sought and selected varies with the kind of learning taking place”.

Therefore, the primary emphasis in the discovery method is to know/understand the procedures than finding the answer/solution. Remember that knowing the how of the process (the problem) is more important than finding what (merely getting the answer) the problem is all about.

Obanya, Shabani and Okebukela (1996:76) defined discovery learning as a method of instruction in which the student does something beyond sitting in his/her seat and paying attention to a teacher in the classroom. Discovery method becomes more meaningful and interesting for students when activities are directed by teachers and approached inductively (which is called guided discovery): starting from the details, particulars, explanations or interpretations then proceeding to generalizations (Biadgelign, 2010:159).

According to Hopkins (2002:3), the discovery methods are characterized by the learner playing an active role in organizing the material to be learned. It focuses on the student “discovering” what is to be learned, without being given the explicit information or content by the teacher (Andrews, 1984; Blake, 1983; Bruner, 1961; and Cavin, 1993) *ibid*.

The discovery method, like the others, has its own advantages and disadvantages. These, according to Brown and his associates (1992:64), Jacobsen and his associates (1993:35) and Obanya, Shabani&Okebukela (1966:77) are summarized as follows:

### **Advantages**

It provides understanding as opposed to rote learning. Because the focus of discovery activities lies on observation, comparison, and explanation by students, it is more conducive for the development of thinking skills. Students are actively engaged in the process of acquiring knowledge instead of being mere recipients of ideas.

It strongly promotes student involvement and success. As a result, the discovery method helps students create the safe environment needed for motivation. That is, students are more interested in and remember better for they have found out things for themselves.

The discovery method is more meaningful and results in better retention; enhances motivation, interest and satisfaction; enhances the development of intellectual capacities, and information and problem solving skills; and helping students learn how to discover, learn and organize what they have learned.



## **Disadvantages**

The discovery method is time consuming, because of the different student responses. Besides, teachers who use this method often complain that they do not have enough time to get in all the content required by their curriculum guides.

The biggest problem with this method, however, may be the skills that it demands from teachers. Teachers who employ this method must constantly be involved in decision-making and thinking. They must decide when to begin channeling the divergent responses towards their objective, pose the right questions on the right time to begin to narrow the responses, prompt and probe when necessary and do all this while monitoring the students' responses in order to formulate appropriate follow-up questions. Besides, it requires a lot of materials to be effective which gain demands skill of teachers to have such materials ahead of class hours.

The discovery method has also other weaknesses such as unfamiliarity and lack of experience on the part of teachers; difficulties on the part of students specifically slow learners; arouses feeling of uncertainty in both students and teachers; and shaking the self-confidence of both.

### **2.6.2.3. Laboratory Method**

The laboratory method, according to Lardizabel, et al (1978) as cited in Biadgelign (2010:166), can be defined as “a teaching procedure dealing with first hand experiences regarding materials or facts, obtained from investigation or experimentation. It is experimentation, observation or application by individuals or small groups dealing with actual materials. Essentially, it is the experimental method enlarged and expanded”.

According to Cardak, Onder and Dikmenli (2007:3), laboratory method which provides the activeness of the student, carries great value in terms of education. It is a place where new information is developed by sighting, developing ideas and interpreting the data by students. Like the other types of teaching methods, the laboratory method has strengths/advantages and weaknesses/disadvantages. These, according to Brown and his associates (1992:79) are summarized below:

## **Advantages**

It trains students in research methods. Because students are exposed to the method, they will be able to follow each and every procedure of scientific inquiry and engage in problem solving activity. Hence, having an improved understanding of the scientific inquiry and problem-solving skills will encourage students to examine ideas, concepts, or others that may seem new to them. Their critical thinking capabilities will be enhanced. Students become interested in the procedures with ‘the how of’ and the reasoning ‘the way of’.

Students learn better and retain knowledge longer when they are practically involved in the knowledge acquiring process. Because the main principle underlying laboratory work is that students learn effectively through doing practical tasks, certainly, even the most sophisticated and /or new topics may help the students benefit from the concrete experience. The saying that says “practice makes perfect” is achieved at large.

## **Disadvantages**

The laboratory method is more time consuming and requires a generous supply of materials and equipment. That is, it requires a large amount of time to acquire a certain new experience/skill compared to those acquired, may be by discussion or similar means. Besides, it is very expensive.

It requires careful planning and a lot of time for preparation on the part of the teacher. Teachers whose teaching program is tight cannot employ this method. Students cannot learn everything through practical experience. Because principles, laws, rules, or theories that govern practical affairs are made at the theoretical level and being merely engaged in laboratories do not make students acquire such theoretical knowledge.

### **2.6.3. Individualized Teaching Methods**

Although individualized learning, in the form of correspondence courses and similar systems, also has a long tradition of use in education, it recently became part of mainstream educational technology and educational development. The catalyst for this was behavioral psychology, whose methods were first applied to education by B.F. Skinner and his followers during the 1950s (Ellington, 1996:81).

Skinner's work on the application of the stimulus/response mechanism represented, in many people's view, the first truly 'scientific' theory of learning. First, it triggered off the bandwagon programmed learning movement that dominated progressive educational thinking during the 1960's. Since then, it has led to the development of a wide range of individualized-learning techniques – such as tape-slide and the various computer-based and multimedia systems that are now achieving more and more widespread use (ibid).

As in the case of the earlier 'mass-instruction' movement failed to live up to most of its early promise. During the 1960's, some programmed learning enthusiasts were predicting the early demise of the traditional classroom teacher or lecturer, claiming that they were developing as delivery systems for their programs. These teaching machines conspicuously failed to live up to expectation, however, partly due to the increasing realization that there was much more to education than the teaching of facts and principles.

Nevertheless, the individualized-learning movement has had a tremendous influence on educational thinking, and the various techniques that it has made available once again form a vital section of the modern educational armory. With the current spread of distance learning, flexible learning, computer-based learning and multimedia, such techniques seem certain to achieve even wider use in future. Indeed, they may well replace the lecture as the dominant mode of instruction in tertiary education (Biadgelign, 2010:170).

Some of the main teaching methods, according to Ellington (1996) cited in Biadgelign (2010:171-189), that fall under the general heading of individualized-learning methods are directed study of material in textbooks, paper-based self-study materials, self-instruction via mediated materials, computer-based learning and individual assignments and projects.

### **2.6.3.1. Directed Study Material in Textbooks**

Conventional textbooks, handout notes, journal articles and other printed materials can often be used in self-instructional situations, although, they may not necessarily be suitable for enabling mastery of desired material to be achieved. This is because most textbooks, handouts, etc., are designed simply to present information, not to provide the users with a systematic learning program. Also, it is very rare to find a single textbook that covers all the material in a course or module in the manner that the person responsible for teaching that course or module requires. The effectiveness of textbooks as vehicles for self-instruction is greatly increased by the use of a

suitable study guide which structures the learning process for the students by directing them to suitable chapters or sections in appropriate books in a systematic and cumulative way provides supplementary notes and assignments, etc.

According to Knowles (1975:2) directed learning assumes that learners are motivated by internal incentives, such as the need for self-esteem, the desire to achieve, the urge to grow, the satisfaction of accomplishment, the need to know something specific, and curiosity. Directed study material textbooks have their own strengths and weaknesses. These, according to Ellington (1996) cited in Biadgelign (2010:171) are summarized below:

### **Advantages**

In the case of certain core subject areas, the course material may well be adequately covered in normal textbooks, and if so, such books represent one of the cheapest and most convenient sources of self-Instructional resource materials. Provided that suitable texts are available and the work is carefully structured, directed study such textbooks can be a highly effective way of teaching basic facts, principles, applications, etc. That is, of achieving objectives mainly of the lower cognitive type. The method can also be used to achieve higher cognitive and some non-cognitive objectives.

It allows learners to work at their own natural pace. Research has shown that learners differ considerably in the rate at which they can assimilate new material effectively; so, any method that allows self-pacing to take place is almost invariably more effective than a method like the lecture in which they all have to work at the pace directed by the instructor.

Another advantage is that it requires no specialized hardware or other facilities, and no specialized courseware other than standard textbooks. The latter can either be purchased by the students or made available through a suitable library.

A further advantage of the method is that study can be carried out at anytime suitable to the learner, and provided that the textbooks involved are not restricted to 'reference only' use within a library in any convenient place.

## **Disadvantages**

One possible disadvantage of the method is that it requires extremely careful planning and structuring on the part of the supervising teacher if it is to be fully effective. This, obviously, requires both skill and time.

The method is also totally dependent on suitable texts being available. In some cases, it may be possible to insist that all students purchase their own copies of the book or books involved, but, in many cases, this will not be a realistic option.

The method is not really suitable for achieving some higher cognitive objectives and many non-cognitive objectives. Also, unless a deliberate attempt is made to build in participative student activities through the study guide, study of material in textbooks can be a very passive form of study, with little or no interaction taking place between the learner and the learning materials. This can lead to boredom and lack of motivation on the part of the students.

### **2.6.3.2. Individual Assignments and Projects**

Virtually all educationalists agree that the most effective way of bringing about long lasting student learning is to get students actively involved in the learning process. To this end asking student to carry out individual assignments, projects, etc., is one of the most effective ways of doing this. They are, however, also extremely powerful vehicles for bringing about learning-often at a very high level and should therefore be regarded as teaching/learning methods in their own right.

A project method is a practical and natural life like learning involving the investigation and solving of problems by individual or a group of trainees. Ideally, project work should consist of a task in which a trainee sets out to achieve some definite goal of real personal value MoE (1999:84). It also exposes students to natural settings to investigate things and come up with new findings or concrete products (Obanya, Shabani and Okebukela, 1996:70).

Moreover, Walkin (1990:58) notes that a project may be set either as an individual task or a small group undertaking. The project may be designed as the learning process in which group members are faced with new concepts and unfamiliar activities or as a device for the integrating of several previously mastered individual skills. Individualized learning methods, have their own

strengths and weaknesses. These, according to Ellington (1996) cited in Biadgelign (2010:179) and Walkin (1990:59) are summarized as follows:

### **Advantage**

The greatest strength of this approach is that it is externally versatile, and can be used to achieve virtually all types of learning objectives: lower-cognitive, higher-cognitive, affective, psychomotor and interpersonal aspects. Indeed, assignments and projects are probably the most effective method of achieving high-level and multi-faceted learning objectives, for instance, developing problem-solving and other life skills.

Strength stems from their intrinsically high student involvement and high level of activity both of which help to ensure that effective learning invariably takes place when work of this type is carried out properly. They can be stepped up incrementally, and designed both to support the weak and to stretch the able ones.

The project method encourages independent study and brings about new discoveries; help students to acquire skills of investigation; make learning meaningful; gives a teacher more time for other class routines; and keeps students busy.

### **Disadvantage**

One of the obvious weaknesses of the method is that it requires detailed individualized feedback to be given to the students if it's to be really effective as a vehicle for promoting learning. This makes heavy demands on teaching staff time, and, if an electronic medium is used, also requires appropriate security measures to be implemented.

It is also too easy to overload or swamp with work if they are asked to carry out too many exercises of this type, especially if they are not properly spaced out. Thus, it is essential that members of course teams give some thought to the overall assignment workload that is imposed on their students, not simply to the assignments that they themselves set. A further weakness is that assignments may prove difficult to cost, particularly if realistic opportunity costs are to be taken into account.

The project method is difficult in the absence of resources; a student can copy some body's work or hire someone to do the project; doesn't take care of individual difference; and time consuming.

### **2.6.3.3. Paper-Based Self-Study Materials**

One of the drawbacks of using textbooks in self-instruction situations is that they may well be inappropriate either in terms of their level or in terms of their treatment of the subject matter, thus making it unlikely they will match the objectives of the course and meet the requirements of the students. Use of carefully prepared and structured hand-out notes produced by the teaching staff offer one means of getting round this difficulty, although the problem of low student interaction with the material may still be present unless deliberate steps are taken to contract it. One way of increasing student interaction with textual materials of this type is to produce them in the form of what are commonly known as open-learning-packages - specially-designed, interactive self-study materials of the type used in open-learning systems. Although not many people can produce such materials, the advent of desktop publishing now makes it easy for anyone to generate well-laid-out, user-friendly self-study packages (Ellington, 1996) cited in (Biadgelign, 2010:172). Paper-based self-study materials also have strengths and weaknesses. These, according to Ellington (1996) cited in Biadgelign (2010:173-174), are summarized below:

#### **Advantages**

Paper-based self-study materials of the open-learning type have essentially the same strengths as directed study of materials in textbooks, and can be even more effective if the materials are well prepared. Well-designed open-learning packages also allow students to learn in an interactive way, learning by doing, and drawing feedback from the responses built into the materials. Learners use the materials at their own pace and normally at times and places of their own choosing. Learners can work again and again through difficult parts of open-learning packages, until they have mastered its contents. The best open-learning packages are written in user-friendly language, helping to ensure that learners find them stimulating and interesting. Modern open-learning packages are usually also carefully planned in terms of their layout and design, the object being to make them as attractive and 'user-friendly' as possible. The content can also be adjusted to be directly relevant to the intended learning outcomes.

Open-learning packages usually make it very clear to learners exactly what they are intended to be able to do after completing their study of the packages, either by including a detailed list of objectives for the packages, or by expressing the intended learning outcomes in terms of the

competences that the learners will be expected to be able to demonstrate when they have worked through the package.

## **Disadvantages**

The main disadvantage of the method is that the task of producing effective materials is inevitably extremely time-consuming, and also requires a great deal of skill on the part of the writer. This is doubly true in the case of fields such as electronics and computer science that are in a more-or-less continuous state of change since writers of individualized-learning materials in such fields are faced with the on-going problem of keeping their material up-to-date; indeed they can be faced with a never-ending task.

Another major limitation of the method is that, like directed study of textbook material; it is not really suitable for achieving some higher-cognitive objectives and may non-cognitive objectives.

A third disadvantage of the method is that it can become extremely boring to students if it is over-used. Also, by the very nature of the method, students do not have the opportunity to learn from one another unless steps are taken to provide room for student interaction, for example, through self-help groups or other group activities.

### **2.6.3.4. Computer-Based Learning and Multimedia**

It has been claimed that the development of the modern microcomputer and its use in the various forms of computer-based learning constitutes the most important development in educational technology since the invention of the moveable-type printing press back in the 15<sup>th</sup> century. Whether or not this is the case, there can be no doubt that the computer has the potential to make a tremendous impact on educational practice, particularly in the field of self-instruction (Ellington, 1996).

Multimedia refers to the use of multiple media elements such as text, graphics, motion, voice data, sound, animations and digital video (Neo, 1997; Moore et al., 1994) cited in Lily (2010:3). Since these media can now be integrated using a computer, there has been a virtual explosion of computer-based multimedia instructional applications (Najjar, 1995:4). Multimedia is being used increasingly to provide computer based instruction. Supporting this, Mayer and Moreno (2001:1) note that computer-based multimedia learning environment consist pictures (such as animation)



and words (such as narration) that offer a potentially powerful venue for improving student understanding.

As a result of the rapid development of the information and communication technology, the use of computers in education has become inevitable. The use of technology in education provides the students with a more suitable environment to learn, serves to create interest and a learning centered-atmosphere, and helps increase the students' motivation (Isman, Baytekin, Balken, Horzum, & Kiyici, 2002) cited in Serin (2011:1). This method, like the others, has its own strengths and weaknesses. These are summarized as follows from Ellington (1996) cited in Biadgelign (2010:176-177).

### **Advantages**

Whether it is employed in the 'substitute-tutor' mode or in the 'simulated laboratory mode', use of the computer as a delivery system for self-instruction materials enables an extremely wide range of educational objectives to be achieved, although these tend to fall mainly in the lower-cognitive area. Use of the computer can also provide a wide range of otherwise inaccessible learning experiences through computer simulations.

It enables an extremely high degree of learner participation to be built in to the instructional process and also enables the system to adapt to the needs of the individual learner in a way that is simply not possible with other delivery systems. Thus, providing opportunity for 'learning by doing'; coupled with the benefits of immediate feedback to learning.

It can allow on-going assessment and monitoring to take place automatically if this is thought appropriate. By these means, students can obtain rapid feedback, and staff can spend less time on marking. It uses the natural information processing abilities that we already possess as humans. Our eyes and ears, in conjunction with our brain, form a formidable system for transforming meaningless sense data into information.

### **Disadvantages**

Computer-based learning has the same basic weaknesses as mediated learning in terms of general lack of availability of suitable ready-made courseware, total dependence on the availability of appropriate hardware and the fact that it is not suitable for use in achieving certain

types of higher-cognitive and non-cognitive objectives. It requires computer literacy and a degree of programming skill on the part of the person designing the materials.

Multimedia requires high-end computer systems and good quality computers, sound, images, animations, and especially video, constitute large amounts of data, which slow down, or may not even fit in a low-end computer. It may not be accessible to a large section of its intended users if they do not have access to multimedia-capable machines.

While proponents of this new technology are very enthusiastic about its potential, they often leave the financial and technical issues unattended. Development costs in multimedia are very high and the process of developing effective multimedia takes time. Time spent on developing the costs multimedia package requires money so that the true cost of an interactive programmed mounts with each delay. And finally, training of the educator who is unfamiliar with the production and design of multimedia course ware or packages can be equally complicating.

#### **2.6.4. Group Teaching Method**

While it can be argued that the individualized learning phase of educational technology probably had a greater impact on modern education and training than the mass instruction phase that preceded it, there are, in practice, a number of limitations to the approach. One of the most obvious stems from the fact that it is, by definition, individual, and, as such, cannot enable students to interact with one another and develop group skills such as discussion skills, interpersonal skills and the various other skills needed to collaborate effectively with other people in carrying out a common task or project (Biadgelign, 2010:179).

Group teaching methods are concerned with how people interact with and learn from one another in small-group situations, and involve the use of the methods of group dynamics. One of the best examples of this method of teaching is the discussion method.

Discussion method covers classroom learning activities involving active and cooperative consideration of a problem or topic for treatment. It, according to Brown, et al (1992:86), is characterized by increased involvement and active participation of members of the class, i.e. students. A more or less maximum active verbal interaction among students of a group is the main feature that distinguishes this method from other teacher-dominated procedures (Brown et al, 1992:89 and Dunkin, 1988:74).

In the discussion method, all learners are given frequent opportunities to generate and share ideas and to analyze, evaluate and conclude on a given topic in small and whole class settings (Obanya, Shabani and Okebukela, 1996:86).

The discussion method has a wider application in arts and social sciences than in others (Dunkin, 1988:75 and Brown, et al, 1992:89). Nonetheless, this does not mean that it cannot be employed in natural sciences, it can be. This method is most appropriate when there are controversial or debatable issues in any subject.

The responsibility for communication is shared by the teacher and the students. The teacher assumes responsibility for initiating the topic of discussion, providing students with common experience upon which to base their participation, stimulating students to think critically, and reminding students of where the group has progressed in relation to their stated goals. The students assume the responsibility for contributing their individual thinking, investigations, and conclusion to the group effort (Azeb, 1984:219). Group learning method like the other methods has both good advantages and disadvantages. These, according to Dunkin (1988:76), Brown and his associates (1992:91), and Ellington (1996) are summarized as follows:

### **Advantage**

It provides an excellent opportunity for students to practice their oral communication skills, for students are required to forward their views, opinions or ideas in their own words according to their understanding.

It gives students time to practice critical and evaluative thinking and to listen to others. This will take place due to the fact that; a student has to present logical reasoning, illustrations, possible or alternative solutions for the case under discussion. Students seem to learn more readily from each other. They get a chance to share experiences; or usually, the relatively less able ones may get the advantage of learning from their colleagues.

It provides good practice for problem-solving. This holds true for the fact that the procedures and the different activities that can be employed in the discussion and problem-solving are so much alike. In both cases, students are expected to identify the rationale behind it, gathering data, forwarding and examining possible solutions, deciding and the like. This is for the very reason

that each group tries to convince the other by logical and reasonable arguments in respect of the rights of the other.

One of the main advantages of the group learning methods is its great versatility, together with the fact that it enables an extremely wide range of educational objectives to be achieved. The approach is especially strong in achieving higher-cognitive objectives of all types, particularly multi-faceted objectives related to problem-solving, decision-making and other complex life skills.

It also helps students to develop desirable attitudinal traits such as open-mindedness and willingness to listen to other people's point of view, and for developing transferable skill process such as communication and general interpersonal skills.

### **Disadvantage**

Group learning often requires the participants to attend briefing or debriefing sessions or to carry out preliminary work can cause complications. It is sometimes difficult to assess student performance fairly, or to evaluate the effectiveness of group learning other than on a subjective basis.

They require the active cooperation of the participants if they are to succeed. In some cases, however, this cooperation may not be forthcoming. Students may for example, simply not turn up for the session because they feel that it will be a waste of time or are afraid of taking part. In other cases, they may be reluctant to make the very real personal commitment that many group learning exercises require, because they do not feel that they have the necessary skills and do not want to 'show themselves up' in front of their peers.

It does not easily lend itself to all types of subjects or topics. That is so much difficult particularly in such subjects as physical sciences, mathematics, or engineering for the teacher to find controversial or debatable issues most of the time. Put another way, the choice of a suitable topic is the problem of the teacher. It is difficult to achieve maximum interaction when the group size is large. Each student does not get a chance to express his/her views, ideas, or opinions.

It may give opportunities for brighter students to show off. That is, the relatively better students and those who need to talk much can take the time or may dominate the others. This can make

the relatively less able students or slow learners to hide themselves or withdraw from the discussion group which in turn may frustrate such students.

## **2.7. The Concept of Quality Learning**

According to DAAD (2007:30), there is no general consensus on the concept of quality learning. An objective definition of quality does not exist. Supporting this, Firdissa (2009:17) notes that whereas quality is an everyday word of today, it has no clear-cut conception and there is no consensus view on 'what is meant by quality?' arguably, many people often talk of quality learning, but they hardly explicate what it really signifies. By implication, defining quality is not an easy task. According to Ellis (1995:4), the working definition of quality might be, it refers to the standards that must be met to achieve specified purposes to the satisfaction of customers. Supporting this, Derebssa (undated: 1) notes that quality influences what students learn, how well they learn and what benefits they draw from their learning. Whether a particular education system is of high or low quality can be judged in terms of input, process and output.

Quality is relative and not easy to define and measure. Many educators agree that adequate definitions of quality of learning must be related to students' achievement (output) as its basis. In the context of schooling, the concept of quality is linked to how efficiently learning takes place. This is believed to be strongly determined by the teaching and learning style taking place at the classroom level, teachers' subject knowledge and pedagogical skills, the availability of textbooks and other learning materials including the time spent by pupils actually learning their lessons (UNESCO, 1993) cited in Derebssa (undated:5).

### **2.7.1. Standards of Quality Learning**

What is commonly employed in the higher learning institutions as a way of checking quality learning is setting minimum standards on the educational processes such as the qualification of the academic staff, the organization of curriculum and other resources, using student evaluation of teaching although there is differences in implementation and utilization (Aschroft, 2005:46). She also suggests the following standards: academic standards, standard of competence, and service standards.

Academic standards measure ability to meet specific levels of academic attainment in relation to teaching and learning. Standard of competence measures specific levels of ability on a range of

competencies which include the general transferable skills required by employer and skills required the induction into a profession. Service standards measure identified elements of the service provided by higher education institutions. The three standards are, however, only defined within the context of an institutional mission. By the way, there are three standards of quality of learning, Input standards, process standards and output/outcome standards. Therefore, this study mainly focuses on process standards.

Because of this reason, the performance of HEI can be assessed on input-process-output procedures (ibid pp. 47). Input standards include academic staff, curriculum design, learning resources, building facilities and provisions, instructional materials, students, instructors, financial capital, ICT, and student intake. Process standards include methods of teaching, the teaching/learning process, curriculum relevance, learning environment, academic and management. Output standards are the backbone of any quality system and refer to the standards that students achieve and the extent to which these are comparable across subjects and with higher education institutions in other countries. It helps to measure the extent to which inputs and processes are contributing to achieving the goals of higher education because the impact of learning manifests the status of graduates.

According to Bergmann and Mulkeen (2011:18), standards can be classified into input standards, process standards and outcome standards. Input standards refer to resource inputs and typically include standards for physical infrastructure, student-teacher ratio and textbook provision. Process standards are concerned with less quantifiable factors, such as the quality of teaching, the management of the school and the relationship with the community. Outcome standards refer to the student learning outcomes.

### **2.7.2. Quality Indicators**

According to Shavelson et al (1987:10-11), there are three indicators of quality in higher education institutions. They include input, process and output indicators. Input indicators of quality include government policies and state legislation, the quality of academic staff, terms of employment of academic staff, financial resources, libraries, ICT and other educational facilities. Process indicators include governance, leadership and management system, relevance of curricula, methods of teaching, and assessment methods. Output indicators include student's

acquired skills and knowledge, employability of graduates, happiness and satisfaction, social functioning and learning dispositions.

According to Ellis & Calvo (2007:4) quality indicators for quality student learning include leadership and ongoing funding, policy, evaluation services, support for teaching and learning with ICTs, support for planning, design, and development with ICTs (integrating ICTs into student learning experiences), and the decision to develop or redevelop a course with ICT.

Performance is an indicator of quality of student learning. There are four types of performance indicators of quality such as input, process, output and outcome (Borden, & Bottrill, 1994; Carter, Klein & Day, 1992; Cave, Hanney & Kogan, 1991; Richardson, 1994) cited in OECD (2008:4-6).

Input indicators reflect the human, financial and physical resources involved in supporting institutional programs, activities and services. Process indicators are those which include the means used to deliver educational programs, activities and services within the institutional environment. These measurements look how the system operates within the institutional environment. These measurements look at how the system operates within its particular context, accounting for instructional diversity. It include policies and practices related to learning and teaching, performance management and professional development of staff, quality of curriculum and the assessment of student learning, and quality of facilities, services and technology. Output indicators reflect the quantity of outcomes produced including immediate measurable results, and direct consequences of activities implemented to produce such results. Outcome measures focus on the quality of educational program, activity and service benefits for all stakeholders. These key stakeholders include students, parents, the community, employers and industry.

### **2.7.3. Factors Affecting Quality of Learning**

According to Lianxiang and Houxiong (2007:825), factors affecting higher education quality learning are various. They include professional fatigue of individual teacher, fall in enrollment quality and anxiety-ridden learning atmosphere, inadequate investment in education and resulting outdated teaching facilities and experiment instruments, unreasonable curriculum setting and obsolete content, and teaching management problems.

Most debates on the quality of learning include concerns about a student's level of achievement, the relevance of learning to the world of employment or the social, cultural and political worlds occupied by the student. Frequently they often also include concerns about the conditions of learning, such as supply of teachers or facilities. Grisay and Mahlck (1991) cited in Derebssa undated: 5) argue that the notion of quality should not be limited to student results alone but should also take into account the determinant factors which influence these, such as the provision of teachers, building equipment's and curriculum. As such, the general concept of quality of learning is made up of three interrelated dimensions. These are: the quality of human and material resources available for teaching practices (process), and the quality of results (outputs and outcomes).

According to OECD (2008:80), factors influencing quality teaching include the national context, institutional structure, student profile, teacher training and use of information technology. According to UNICEF (2000:5), quality is determined by the following factors learners such as learners who are healthy, well-nourished and ready to participate and learn, and support in learning by their families and communities; environments that are healthy, safe, protective and gender sensitive and provide adequate resource's and facilities; content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace; processes through which trained teachers use child-centered teaching approaches in well-managed classrooms and schools and skillful assessment to facilitate learning and reduce disparities; and outcomes that encompass knowledge, skills attitudes and are linked to national goals for education and positive participation in society. Therefore, all these things have their own effect on quality of student learning.

Quality is affected by the inputs such as building facilities and provisions, instructional materials, students, instructors, financial capital, ICT, academic staff and student intake (Smeenk and Teelkun, 2003:75). Moreover, an organization's process reflects the nature of the intra-institutional interaction of students, faculty and inputs to reach educational goals and objectives (Assefa, 2002:35). The process of higher education consists of methods of teaching, the teaching learning process, curriculum relevance, learning environment, academic and management (Stoll, 2005:233). The output of higher education helps to measure the extent to which inputs and process are contributing to achieve the goals of higher education because the impact of education



manifests itself the status of graduates. For example, graduate profiles, performance on standardized tests, cost-effectiveness, and employment rate of graduates and level of performances (Assefa, 2004:39; Stoll, 2005:247).

No change is possible without right leaders and managers in government, its agencies and higher education institutions (MoE, 2004b:102). The governance, leadership and management of Ethiopian higher education system prior to 1994, and in particular between 1974 and 1994, were largely characterized by heavy handed and more direct government inference in institutional affairs. The situation has improved after the adoption of the new Education and Training Policy (ETP, 1994:29) and strengthened after the promulgation of the higher education proclamation, similarly, we share the same situation in Somaliland.

The effectiveness of any organization depends largely on the effectiveness of its management and the governance arrangements. The process of coordinating and integrating work activities are completed efficiently and effectively with and through people (Rosenstone, 2004:93). This indicates that effective management brings about efficiency of an institution.

Institutional leadership mainly focuses on articulation of vision, missions, setting direction, challenging the status quo and creating something new and better as well as the management type in terms of ensuring system stability, planning and supervision to do things right are of paramount importance (Rosenstone, 2004:89; Teshome, 2007:50). The greatest problem higher learning institutions face is lack of leadership competencies due to the fact that leaders are appointed on the basis of seniority without appropriate training and qualification that are required for higher education settings (Olusola, 2007:59).

In HEIs, institutional autonomy should be respected, academic freedom within the law should be protected and governance arrangements should be open/transparent and responsive (Teshome, 2007:50). Thus, leadership is critical in success of an institution in terms of fulfilling its missions and meeting societal expectations.

In summary, this chapter ideally discusses the overall related literature review. Starting from the past history to the present one, followed with concepts, definitions of teaching and their effectiveness, with a detail discussion of historical development of teaching and considerations in choosing teaching methods and classifications.

Finally, the concept of quality learning in terms of standards, indicators, and factors affecting quality of learning were brought up at the conclusion of this chapter because they are fundamental principles of learning in general and also very specific to this area of study. As well as the overall importance in order to understand the history of different stages of teaching methods and the linkage between them. Undoubtedly, teachers feel that previous teacher-centered methodologies do not lead to better understanding and this lack of improved professional status reduces the enthusiasm of teachers.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHADODOLOGY**

This chapter deals with research design, method, source of data, study area and population, sample size and sampling technique, validity of the study, instrument of data collection, data collection procedure, method of data analysis and ethics of the study.

#### **3.1. Research Design**

For the purpose of this study, a descriptive survey design was employed. Especially, the cross-sectional research design is used to collect data at one point in time where participants found in the study area. Thus, both the quantitative and qualitative data were collected concurrently.

#### **3.2. Research Method**

The survey research method was employed in this study. This method is appropriate for this study on the assumption that the method can provide accurate and precise information concerning the teachers' teaching effectiveness and its implications on quality of student's learning which helps to describe the existing situations. So it is the most popular and extensively employed research methods in education (Cohen, Manion & Morrison, 2007). In supporting this idea, Dagmawi (2010), noted that correlational research method is used to describe the nature of the existing condition. It is for this reason and its appropriateness that the research is employed in this method.

#### **3.3. Study Area and Population**

The sample area of the study was University of Hargeisa, which is found in the Republic of Somaliland. The target population of the study was University of Hargeisa. The university comprises 256 teachers of which 249 are males and 7 are females, total number of the students are 400 (where only 2000 students from different faculties were selected) second and third year of which 1350 are males and 650 are females, 10 colleges and 20 faculties. However, the study population was second and third year students, because the number of first year students was not known, and senior students were very busy because they were having final exams, and that is why both groups were not included in the study.

### **3.4. Source of Data**

In this study primary source of data was used dominantly to gather adequate information about teachers' effectiveness and its implication on quality of student's learning at the University of Hargeisa. Primary source was used to get first-hand information concerning teaching methods, students' academic achievement test (exams). The primary sources were university teachers, students, head of departments and faculty deans. The secondary sources were used to strengthen the primary sources. They included University of Hargeisa policy manuals, students' grade scores as well as reports and necessary record documents were revised. Additionally, other necessary sources were used to avoid the inadequacies of the data and to make the study reliable.

### **3.5. Sample Size and Sampling Technique**

The samples of this study were the students, teachers; head of departments and dean of faculties that are found in the University. The sample must be of an optimum size i.e., it should neither be excessively large nor too small. This is because it should be large enough to be representative of the population and small enough to be economical in terms of time, money and complexity of analysis (Best and Khan, 1989:19). All faculty deans and head of departments were included using availability sampling technique because their number was very small. Vanderstoep and Johnston (2009:49) state that availability sampling involves selecting people who are available or convenient for the study.

Moreover, if the population size is around 500, 40% of the population should be sampled (Leedy and Ormrod 2005:207). Therefore, from the total number of 256 teachers, 102 teachers were selected using simple random sampling technique to collect all the necessary data from the respondents because they are directly concerned with the issue of the study. If the population size is around 1500, 20% of the population should be sampled (Leedy and Ormrod 2005:207). Therefore, from the total number of 2000 students, 400 students were selected by using simple random sampling technique. The simple random sampling technique was preferred because every member of the sample population will get an equal chance to be selected. All four department heads, six college deans and 10 teachers from different faculties were included for interviews.

### **3.6. Instruments of Data Collection**

Questionnaire, interview, classroom observation and document analysis were the main data gathering instruments. This was because of the need to collect a adequate data and for triangulation purpose, but it was impossible to employ classroom observation and document analysis because of it was final examination time and the reason for document analysis was to get sufficient data from student grades but the registrar do not allow a third hand to take it outside the office. Therefore, employing multiple data collection instruments helps the researcher to combine, strengthen and amend some of the inadequacies of the data and for triangulating it (Cresswell, 2003:62).

#### **3.6.1. Questionnaire**

For this study questionnaires consisting of both closed and open ended item types were employed. In order to gather the necessary information on impeding and investigating teachers' teaching effectiveness and its implications on quality of student's learning at UOH, in Somaliland. Accordingly, 5 point Likert scale item questionnaires which range from Always=5 to never=1. At the same time, another 5 point Likert scale was prepared for respondents to rate their choices because it helps the researcher to know respondents' opinions. For this, the rating scale was, strongly disagree=1, disagree=2, undecided=3, agree=4, and strongly agree=5. In addition, it helps the respondents to choose one option from the given scales that best aligns with their views. In addition to this, open-ended questionnaires were employed in order to give opportunity to the respondents to express their feelings, perceptions, problems and intensions related to the dominant teaching methods used by teachers and students' academic achievement. The questionnaire had three parts: the first part was explaining the objectives of the study and the instructions to be followed by respondents. The second part was prepared to obtain personal information about respondents and the third part was designed to secure information about the role played by University teachers as instructional agents.

#### **3.6.2. Semi-structured Interview**

The interview was used to collect detail information from the respondents regarding the issue under study. The researcher used semi-structured type of interview, because the semi-structured interview was used to guide the interviewee to express his/her feeling freely, let the researcher use ideas from observation and at the same time more convenient for analysis purpose than

unstructured interview (Wragg, 2002). The interview was held with the respondents on the issue under study. Finally, the interview questions were prepared in English language. Besides, the researcher interview was made with interviewees using Somali language in order to minimize language barriers during the discussion.

### **3.6.3. Classroom Observation**

Classroom observation was used to see the working conditions and the relationship between the dominant teaching methods used by teachers and its implication on quality of learning. In the observation, specific attention was given to certain aspects to investigate the relationship between the two variables such as, the availability and conditions of teaching and learning. Hence, classroom observation was made in each class in the sample of the study by using observation checklists.

### **3.6.4. Document Analysis**

Document analysis was also used to gather necessary information about teachers' effectiveness and its implication on quality of student's learning. This was to strengthen the data obtained through questionnaire and interview. Due to this reason, University of Hargeisa policy manuals were seen because they are important sources of data to explore educational practices. Supporting this, Best and Khan (1989:25) have noted that document analysis are important and relevant sources of data, and useful in yielding information and exploring educational practice.

## **3.7. Validity and Reliability of the Instruments**

The validity of the research was enhanced through different methods. In supporting this, Patton (1989), stated that multiple source of information are sought and used because no single source of information can be trusted to provide a comprehensive perspective on the program. For this study, different groups of data sources such as teachers, students, and dean of faculties were involved. The data was cross-referenced and cross-validated to check their validity by experts. Moreover, the numbers and items of the questionnaire for all participating University teachers were similar to cross-check their responses. The questionnaire for others was also similar. Comparable interview questions were administered for the respondents.

The reliability of the instrument was computed by Cronbach alpha method, to measure the reliability of the instrument. Hence, it was administered as per the schedule.

### **3.7.1. Pilot Test**

Before the final questionnaire was administered, pilot testing was conducted in two colleges to ensure that the respondents understand what the questionnaire intended to address. The questionnaires were distributed to ten faculty teachers and students of the above stated University. After the questionnaires were filled and returned the reliability and validity of items were measured by using Cronbach's alpha method by the help of SPSS program. The obtained test result was 0.85. Then as the result indicated it was a good indication of the internal consistency of items. That is the instrument was found to be reliable as statistical literature recommend a test result of 0.65 (65% reliability) and above as reliable.

### **3.8. Data Collection Procedure**

In conducting this study, the investigator followed series of data collection procedures to gather data. First, the researcher prepared questionnaire and interview guide checklists to make the process efficient and effective in achieving the intended objectives of the study. Then, the data gathering instrument were pilot tested and reviewed by experts in order to make essential correction and maintain the validity and reliability of the instrument before the final study was conducted. Accordingly, based on the feedbacks of the test retest process, the researcher made important improvements. Finally, orientation was given to the respondents about the objective of the study and how to fill the questionnaires to avoid difficulty and confusion. In doing this every ethical issue was put in to practice as stated in the 'Ethical Consideration' part of this paper.

### **3.9. Method of Data Analysis**

Both qualitative and quantitative methods of data analysis were employed. The collected data from teachers, students and dean of faculties by the use of close ended questionnaires was cleaned, coded and key-punched into a computer and then entered in to the Statistical Package for Social Science [SPSS] computer software programs and quantitatively analyzed using descriptive statistics. On the other hand, the data which is solicited by the use of open-ended questions and interview was qualitatively analyzed and interpreted.

Frequencies and percentages were employed to analyze the characteristics of the population as it helps to determine the relative standing of the respondents and to describe the results of the research findings. Moreover, mean scores, standard deviation, rank order to identify the dominantly used teaching methods was employed for analyzing the questionnaires with five

point Likert scales to investigate teaching methods and student's academic achievement at University of Hargiesa. The items were assigned the following points and the scale was interpreted as 5= Strongly Agree, 4= Agree, 3= Undecided, 2= Disagree, and 1= Strongly Disagree. In analyzing the data obtained through an interview, first summary sheets were prepared, field notes were written and the content of the responses were analyzed. To this end, analysis and interpretations was made on the data obtained through questionnaires and interview.

### **3.10. Ethical Consideration**

In educational research and other social research ethics is concerned with ensuring that the interests and well-being of research participants and participant's consent (free will) to take part in the study are not harmed as a result of research being done. This involved seeking permission by the researcher from the senior officials of the University based on a letter written from the assigned department. Permission was asked from the top management authorities of the University with respect to the respondents' views. This is important for the protection of the respondents from harm or harassment, confidentiality of the respondents and their superiors' sensitive information.

There was also a need for the researcher to use professional and ethical standards to plan, collect and process data. The researcher had to make sure that he/she uses only those techniques for which he/she is qualified by education, training and experience.

Whenever in doubt, the researcher was seeking clarification from the research community especially the immediate supervisor, co-advisor and research colleagues through emails and telephones. The researcher ensured that data collected was interpreted according to general methodological standard and make sure that elements that are irrelevant to data interpretation are excluded from the report. The researcher used the information only for the purposes indicated in the purpose of the study. Further, the researcher acknowledged every sources used in this study.



## **CHAPTER FOUR**

### **4. Presentation, Analysis and Interpretation of the Data**

Chapter four deals with the presentation, analysis and interpretation of the data collected from the participants of the study through questionnaires, interviews and observation. The purpose of this study was to investigate teachers' teaching effectiveness and its implication on quality of student's learning at University of Hargeisa. In order to achieve this objective, 502 questionnaires were distributed to 102 teachers and 400 students. The return rate of the questionnaires was - 94.1% for teachers and 91.2% for students which were adequate to make the analysis of the study. Additionally, 6 college deans, 4 department heads and 10 teachers were interviewed.

#### **4.1. Characteristics of the Respondents**

In this demographic part of chapter four the demographic characteristics of the respondents was presented, analyzed and interpreted as follows. Here the teachers' and students' characteristics were separately presented to make clear and easy the analysis and its interpretation.

#### 4.1.1. Teacher Respondents' Characteristics

**Table: 1 Distribution of Teacher Respondents' Characteristics**

No	Variable	Category	No	Percent (%)
1	Sex	Male	89	92.7
		Female	7	7.3
		Total	96	100
2	Age	25 years	9	9.4
		26-30 years	23	24
		31-35 years	26	27.1
		36-40 years	23	24
		Above 40 years	15	15.6
		Total	96	100
3	Educational qualification	BA/BSc	60	62.5
		MA/MSc	23	24
		PhD	13	13.5
		Total	96	100
4	Service years	1-5 Years	21	21.9
		6-10 years	27	18.1
		11-15 years	22	22.9
		16-20 years	16	16.7
		21- 25 years	7	7.3
		26 year and above	3	3.1
		Total	21	100

As shown in table 1 of item 1, majority of teacher respondents 89 (92.7%) were males, but the opposite was true for females since their total number was 7 (7.3%) in the sampled colleges at the University of Hargeisa. This shows that the number of male teachers is greater than that of females. From this data it is possible to infer that male teachers were dominating the teaching position in the University. Hence, the participation of the two groups in the study sample was not equal rather it is proportional to the population of the study.

Regarding the age categories, 9(9.4%) of the teaching staff respondents were  $\leq$  25 years, 23(24%) of the teachers were between 26-30 years of age while 26 (27.1) % of them were found between 31–35 years of age. Moreover, 23(24%) of the teachers fall between 36-40 years old whereas 15(15.6%) of them were above the age of >40 years old. This showed that most of the research participants in the University of Hargeisa were young, but they can still respond well on the practices of the teaching methods used in their university.

With regard to the educational level of teachers, the result of the above table item 3 indicates that the majority 60(62.5%) of teachers had BA/BSc degree. Whereas, 23(24%) of teacher respondents indicate that they had MA/MSc degree. This showed that the majority of the teachers in the University of Hargeisa were found below the expected qualification level as compared to the country's standard for university teachers' qualifications.

The result in table 1 item 4 further depicts the participants' work experience. Accordingly, the greater number 27(28.1%) of teacher respondents' work experiences were between 6 – 10 years. In addition other responses of teachers revealed that 21(21.9%) and 22(22.9%) of teachers were found to be under the category of 1-5 and 11-15 years of service respectively. The overall responses prove that moderately experienced teachers are dominating the University of Hargeisa, and the samples can respond well to the items of this study since their experience will provide them an opportunity to identify the strengths and limitations of the teaching methods used by the teachers.

#### 4.1.2. Student Respondents' Characteristics

**Table: 2 Distributions of Student Respondents' Characteristics**

No	Variable	Category	No	Percent (%)
1	Sex	Male	288	78.9
		Female	77	21.1
		<b>Total</b>	<b>365</b>	<b>100</b>
2	Age	20-25 years	187	51.2
		26-30 years	95	26.0
		31-35 years	46	12.6
		36-40 years	26	7.1
		Above 40 years	11	3.0
		<b>Total</b>	<b>365</b>	<b>100</b>
3	Educational Qualification	BA/BSc student	365	100
		MA/MSc student	0	0
		<b>Total</b>	<b>365</b>	<b>100</b>
4	Years of stay in the University	1 <sup>st</sup> year student	0	0
		2 <sup>nd</sup> year student	0	0
		3 <sup>rd</sup> year student	185	50.7
		4 <sup>th</sup> year student	180	49.3
		<b>Total</b>	<b>365</b>	<b>100</b>

As table 2 item 1 shows the majority of student respondents, 288 (78.9%) were males and 77 (21.1%) of the students were females. This indicates that female students' participation at the university level seems to be encouraged.

Concerning the age, majority of students 187(51.2%) found below the age of 25 years. Whereas 95(26%) and 46 (12.6) of students fall in the age range of 26-30 and 31- 35 respectively. Therefore, the majority of the students at Hargeisa University found in the appropriate age level to follow higher education, and the students can respond to the questionnaire items properly.

With regarding to the respondents qualification (2nd and 3rd year), of all 365(100%) of the students of Hargeisa University were BA/BSc, degree students. This shows that the university is training human resource at this level only.

As depicted in item 4 the majority of 185(50.7%) of students stayed for three years in the university while a slightly different number of students, i.e. 180(49.3%) stayed for four years in the University of Hargeisa. Thus, the students seem to have adequate experience and exposure with the dominantly used methods of teaching (Lecture, demonstration, inquiry methods, etc.) were seen as the most employed teaching methods teacher used in their university with their limitations and strengths.

## **4.2. Presentation and Analysis of the Data**

This part focuses on the presentation and analysis of the data gathered from respondents on the teaching methods used by teachers and students' perception on quality of learning and their achievement through questionnaires, interview and observation. The questionnaires were prepared using five point Likert scales and results from open-ended items and interview questions were also analyzed to supplement and validate the findings from each close-ended item.

### **4.2.1.The Effectiveness of Teachers' Teaching Practice**

In this sub-part of the study the effectiveness of teachers' teaching practice was presented based on the data gathered from respondents. Hence, respondents were asked to rate the level of their agreement on the five point Likert scale item questionnaires range from Always (=5) to never(=1). In doing this, within the five point ranges, three trisecting scores were used to make the analysis easy and clear as suggested by John Biggs & Catherine Tang, 2012; these scores were 2.49, 3.49 and 4.49. Consequently, the results from the questionnaire items were analyzed with a mean value of  $\leq 1.49$  were never practices; from 1.5 to 2.49 rarely; from 2.5 to 3.49 were sometimes; from 3.50 to 4.49 often practiced and from 4.50 to 5.00 always practiced. In addition, the qualitative data were analyzed to triangulate and supplement the Quantitative findings from the questionnaire items.

The following table, i.e. Table 3, presented based on the above analysis framework and criteria to make clear the results and findings of the study.

### **Table: 3 Respondents view on the Effectiveness of Teachers' Teaching Practice**

No	Items	Respondents	N	Mean	Std. Deviation	Overall Mean	p-Value
1	Teachers know/call each of their students by their names	Teachers	96	3.46	1.313	3.57	.120
		Students	365	3.68	1.237		
2	Teachers arrange consultation hours for their students	Teachers	96	2.81	1.292	2.55	<b>.000</b>
		Students	365	2.29	1.254		
3	Teachers use examples, illustrations and demonstrations to clarify the lesson or content to their students.	Teachers	96	3.72	1.220	3.81	.181
		Students	365	3.90	1.134		
4	Teachers inform their students the objectives of the lesson.	Teachers	96	3.89	1.195	3.68	<b>.005</b>
		Students	365	3.48	1.386		
5	Teachers give summary at the end Of each lesson.	Teachers	96	3.88	1.154	3.80	.256
		Students	365	3.72	1.243		
6	Teachers use attention gaining activities, ideas, concepts, and devices while teaching their students.	Teachers	96	3.71	1.264	3.73	.756
		Students	365	3.75	1.240		
7	Teachers use rewards (verbal praise, extra credit, etc.) to motivate students	Teachers	96	3.89	1.075	3.82	.322
		Students	365	3.76	1.235		
8	Teachers ask students to give constructive feedback on each other's work.	Teachers	96	2.80	1.335	2.88	.331
		Students	365	2.96	1.422		

Note: P-value was calculated at  $\alpha = 0.05$  levels, and  $df = 459$

Scales;  $\leq 1.49$  = never, 1.5 – 2.49 = rarely, 2.5 – 3.49 = sometimes,  
3.5 – 4.49 = often,  $\geq 4.5$  = Always

The results in Table 3 concentrate on the effectiveness of teachers' teaching practice at University of Hargeisa, as reported by respondents. Consequently, in item 1 the mean scores of the teachers was 3.46 and that of the students was 3.68 in which the teachers know/call each of

their students by their names in the teaching learning process sometimes and often respectively. Also the overall mean 3.57 shows that teachers know/call their students name not very often. The T-Test result with the p-value of  $0.120 > 0.05$  proves that the two groups of respondents were not statistically significant different in their response on the item. Therefore, one can say that teachers know or call the students by their name to better facilitate the teaching learning process.

With regard to item 2 in table 3, the mean score on the arrangement of consultation hours for students by their teachers was 2.81 for teachers and 2.29 for students in which teachers arrange these vital hours sometimes and rarely as respectively rated by the two groups. Also the overall mean of 2.55 shows that this is used or practiced sometimes. The T-Test result with the p-value of  $0.000 < 0.05$  shows that there is statistically significant difference in the responses of the two groups on this item. Hence, one can infer that the arrangement of consultation hours for students was not adequately utilized by the teachers to make the teaching learning process effective only according to the student response.

When respondents were asked how often teachers use examples, illustrations and demonstrations to clarify lesson to their students, etc. in the teaching learning process, as shown in Table 3, item 3 the teachers' mean score was 3.72 and the students' mean score was 3.90 in which both of the respondents indicate that this is practiced often in their University. Also overall mean 3.81 shows that the teachers use examples, illustrations and demonstrations to clarify lesson to their students often. The T-Test result with the p-value of  $0.181 > 0.05$  shows that there is no statistically significant difference in the responses of the two groups concerning this item. Thus, it is possible to say that teachers use examples, illustrations and demonstrations often to clarify lesson to their students for the sake of bringing effective teaching and learning.

In the same table of item 4, the respondents were asked how often teachers inform their students the objectives of the lesson before they start the lesson, as shown in Table 3, the mean score of respondents on this item were 3.89 for teachers and 3.48 for students with a verbal interpretation of sometimes and often respectively. Also overall mean 3.68 shows that the teachers inform their students the objectives of the lesson before they start the lesson as often. The T-Test result with the p-value of  $0.005 < 0.05$  proves that the two groups of respondents was significantly different in their view on the item.

Concerning item 5 of similar table, the mean scores of teachers and students on the provision of summary at the end of each lesson by the teachers were 3.88 and 3.72 respectively, in which both group's rating show that teachers give summary often.

Correspondingly, the overall mean 3.80 has similar interpretation towards the item. The T-Test result with the p-value of  $0.256 > 0.05$  shows that the two groups of respondents were not statistically different in their response on the item.

Regarding item 6 i.e. the use of attention gaining activities, ideas, and devices by the teachers, the mean scores for teachers was 3.71 and for students was 3.75 in which the verbal interpretation of this practice shows often. Also the overall mean 3.73 indicate that they often use these methods of teaching. The T-Test result with the p-value of  $0.756 > 0.05$  shows that there was not statistically significant difference in the responses of the two groups concerning this item.

When respondents asked how often teachers use rewards (verbal praise, extra credit, etc.) to motivate students, as revealed in Table 3 of item 7, the teachers' mean score was 3.89 and the students' mean score was 3.76 in which both of the respondents indicate that this was practiced often in the University of Hargeisa. In the same vein, the overall mean 3.82 shows that the teachers use rewards (verbal praise, extra credit, etc.) to motivate students often. The T-Test result with the p -value of  $0.322 > 0.05$  shows that there was not statistically significant difference in the responses of the two groups about this item.

In the final item of Table 3, which is item 8 the mean scores of teachers were 2.80 and that of students were 2.96 both of the responses mean indicate that teachers sometimes ask students to give constructive feedback on each other's work. Similarly, the overall mean 2.88 shows that teachers perform this practice sometimes. The T-Test result with the p-value of  $.331 > 0.05$  indicates that there is not statistically significant difference between the responses of the two groups.

In whole from the above table, it is possible to conclude that teachers of Hargeisa University use most of the teaching methods that help them to effectively teach their classroom lessons.



#### 4.2.2. Considerations in Choosing Teaching Methods

This part deals with the discussion of the data gathered from respondents on considerations in choosing teaching methods. The considerations in teaching methods were presented to respondents through questionnaires that they were required to rate the level of accomplishment of the teachers on the basis of a five point Likert scale item questionnaires. These five point scales range from Strongly Agree (5) to Strongly Disagree (1).

As previously used, within the five point ranges, three trisecting scores were used to make the analysis clear as used by John Biggs & Catherine Tang, 2012; these scores were 2.49, 3.49 and 4.49. Still the results from open-ended items and interview questions were also analyzed to supplement and validate the findings from each close-ended item as necessary.

**Table: 4 Respondents view on Considerations in Choosing Teaching Methods**

N Items	Respondents	N	Mean	Std. Deviation	Overall Mean	p-Value
1 Teachers consider the age and maturity level of their students.	Teachers	96	3.10	1.440	2.99	.144
	Students	365	2.88	1.316		
2 Teachers recognize students' background knowledge and existing skills.	Teachers	96	2.07	1.416	2.28	.165
	Students	365	2.49	1.399		
3 Teachers consider content of the subject-matter or the instruction.	Teachers	96	3.79	1.205	3.78	.956
	Students	365	3.78	1.284		
4 Teachers consider learning objectives or outcomes to be achieved.	Teachers	96	3.85	1.184	3.80	.502
	Students	365	3.76	1.203		
5 Teachers consider their teaching characteristics (knowledge, skills, experiences, etc.) before choosing teaching methods.	Teachers	96	3.70	1.261	3.61	.218
	Students	365	3.52	1.240		
6 Teachers consider the time, space/class size, facility and resources before choosing teaching methods.	Teachers	96	2.62	1.367	2.48	.087
	Students	365	2.35	1.265		

Note: P-value was calculated at  $\alpha= 0.05$  levels, and  $df= 459$

Scales;  $\leq 1.49 =$  Strongly Disagree,  $1.5 -2.49 =$  Disagree,  $2.5 -3.49 =$  Undecided

$3.5 - 4.49 =$  Agree,  $\geq 4.5 =$ Strongly Agree

It can be seen from Table 4 item 1, that teachers and students were asked to rate teachers' consideration of age and maturity level of students at University of Hargeisa. The mean scores of the teacher and student respondents were 3.10 and 2.88 respectively, in which the teachers' response to consider the age and maturity level of their students in the teaching learning process was undecided, with an overall mean of 2.99 which showed that the respondents were unable to decide on the item. The T-Test result with p-value of  $0.144 > 0.05$  indicates that there is no statistically significant difference between the two groups of respondents towards the item.

Similarly, the data obtained from the student respondents through interviews made with the faculty deans revealed that as they discuss with the students and teachers themselves on a meeting about the teaching learning process, teachers consider the age and maturity level of their students before choosing teaching methods.

With regard to response of item 2 in Table 4, the mean score for the teachers' consideration of students' background knowledge and existing skills for teachers and students responses were 2.07 and 2.49 respectively in which both of them show disagreement. Also the overall mean of 2.28 shows that there is a disagreement. The T-Test result with p-value of  $0.165 > 0.05$  indicates that there is no statistically significant difference between both groups of respondents on the item.

Similar to the teacher respondents, the data obtained from the interviews made with the faculty deans revealed that, as deans made discussion with teachers, teachers did not consider their students' background knowledge and existing skills before choosing teaching methods.

When respondents were asked about the teachers' considerations of the content of the subject-matter or the instruction (item 3), the mean score was 3.79 for teachers and 3.78 for students in which teachers consider the content of the subject-matter or the instruction. With an overall mean of 3.78 which shows agreement result. The T-Test result with p of  $0.956 > 0.05$  shows that there is no statistically significant difference between the responses of the two groups of respondents which proves that the two groups of respondents are significantly similar in their agreement on the item. This indicates that teachers' level of agreement to the item was very similar to the level of agreement of the students.

Similarly, the data obtained from the interviews made with the faculty deans showed that, as they made a discussion with both teachers and students, teachers consider the content of the subject matter or the instruction before choosing the method of teaching.

Teachers and students were asked to rate on the teachers' consideration of the learning objectives or outcomes to be achieved (item 4). The mean scores of the teacher and student respondents were 3.85 and 3.76 respectively, which shows agreement by both teachers and students for teacher's consideration of learning objectives or outcomes to be achieved. Also the overall mean of 3.80 shows agreement. The T-Test result with  $p$  of  $0.502 > 0.05$  shows that there is no statistically significant difference between the responses of the two groups of respondents on the item. This reveals that teacher respondents' have slightly a high level of agreement on teachers' consideration of learning objectives or outcomes to be achieved compared to the student responses.

Similarly, the data obtained from the interviews made with the faculty deans showed that teachers consider the learning objectives or outcomes to be achieved before choosing teaching methods. The evidence is deans make discussion with teachers on a meeting about students' learning.

The mean score of the teacher and student respondents for the teachers' considerations of teaching characteristics (knowledge, skills, experience, etc.) before choosing teaching methods (item 5) were 3.70 and 3.52 respectively, in which the teachers consider the above variables for agreement part, with an overall mean of 3.61 agreement. The T-Test result with  $p$  of  $0.218 > 0.05$  show that there is no statistically significant difference between the responses of the two groups of respondents in their agreement on the item. This indicates that teachers' level of agreement to the item was higher than that of the student.

Similarly, the data obtained from the interviews made with the faculty deans showed that, as they make a discussion with both teachers and students, teachers consider the teaching characteristics before choosing teaching methods.

With regard to Table 4, item 6 the mean score on teachers' considerations of their teaching characteristics (knowledge, skills, experiences, etc.) was 2.62 for teachers and 2.35 for students in which shows undecided and disagreement as respectively rated by the two groups of respondents. Also the overall mean of 2.48 shows that this is disagreement. The T-Test result

with  $p$  of  $0.087 > 0.05$  shows that there is no statistically significant difference between the responses of the two groups of respondents in their agreement on the item. This reveals that teacher respondents have a higher level of agreement on teachers' consideration about time, space/class size, facility and resources before choosing teaching methods compared to the student respondents' average agreement which is near to the high level of agreement.

At the same time, the data obtained from the interviews made with the faculty deans showed that teachers consider about time, space/class size, facility and resources before choosing teaching methods. The evidence is deans made discussion with teachers on a meeting about students' learning.

On the other hand, one of the teacher respondents said:

*"Choosing a teaching method depends on the experience, skill, competence, and knowledge of the teacher. I used to ask myself the following questions before embarking on actual lesson delivery. How detail is my knowledge on this topic? Am I well read, skillful or experienced on this issues and tasks? How my previous teachers taught me?"*

This therefore indicates that teachers were considering their teaching characteristics before choosing teaching methods that they are going to employ to teach their students.

Another one of the teacher respondents replied:

*"I do not consider these things at all. The reason behind is that there are no adequate classes, facilities and resources. In this environment it is unthinkable, for me to consider about these issues. Therefore, I merely teach my students by not considering these considerations."*

Eventually, one of the teacher respondents said:

*"I consider these things as much as possible. For instance, I mostly prefer to use lecture method if there are no facilities of demonstration, if the time is too short, and if the class size is large. But I use other interactive methods (for example, discussion method), if the class size is small and if there is adequate time for it. I also consider the available resources for teaching my students."*

From this, one can understand that teachers were considering most of the above issues before choosing the teaching methods they employ to teach their students even though few of them did not consider them.

An overall consideration in choosing methods of teaching was computed by aggregating the responses of the six considerations in choosing methods of teaching, from the above table it is possible to conclude that majority of the teachers at University of Hargeisa, consider their students before choosing teaching methods to facilitate teaching and learning for their students.

### **5. Teaching Methods Often Employed by Teachers**

This part deals methods of teaching often employed by teachers. The teachers' methods of teaching were presented to respondents through questionnaire that they were required to rate the level of accomplishment of the teachers on the basis of a five point Likert scale. These five point scales range from strongly agree (=5) to strongly disagree (=1). Mean scores, standard deviations and t-test results were calculated from the responses. Within the five point ranges, three trisecting scores were taken to make the analysis clear. These scores were 2.49, 3.49 and 4.49. Thus, teachers' performances on tasks with a mean value from 1.00 to 2.49 were low, from 2.5 to 3.49 were moderate, from 3.50 to 4.49 were high, and from 4.50 to 5.00 were very high. Open-ended questions were also analyzed to strengthen the close-ended ones separately. Besides, responses from the interview were summarized to validate the findings during the process of presentation and analysis of all data in each close-ended item as necessary.

To assess teachers' method of teaching both respondent groups were asked to give their ratings regarding eleven (11) methods of teaching items as presented in table 5 below. In this table, the average agreement level given by the two respondent groups regarding each item is computed and presented with statistical t-test results.

**Table: 5 Respondents view on Teachers' Method of Teaching**

No	Items	Respondents	N	Mean	Std. Deviation	Overall Mean	p-Value
1	Teachers are teaching large number of students at a time.	Teachers	96	3.76	1.229	3.73	.659
		Students	365	3.70	1.217		
2	Teachers generate learners' interest, enthusiasm and appreciation.	Teachers	96	2.85	1.142	2.46	<b>.000</b>
		Students	365	2.34	1.399		
3	Students' participation is encouraged for their learning success	Teachers	96	3.60	1.252	3.71	.119
		Students	365	3.82	1.120		
4	Students are provided with demonstrations which make them good observers.	Teachers	96	2.73	1.326	2.92	<b>.016</b>
		Students	365	3.12	1.412		
5	Teaching enhanced my critical thinking and skills of scientific investigation.	Teachers	96	2.40	1.333	3.11	<b>.004</b>
		Students	365	3.82	1.187		
6	Students are supported to learn how to discover and organize things	Teachers	96	3.61	1.325	3.45	<b>.043</b>
		Students	365	3.30	1.445		
7	Teachers use textbooks, handout notes and other printed materials in the instructional process.	Teachers	96	4.20	.890	4.10	.080
		Students	365	4.00	1.023		
8	Teachers use audiotapes, videotapes, slide sequences, photographs, models, practical kits, tools, & conventional printed materials in their own classrooms.	Teachers	96	2.29	1.256	2.46	<b>.024</b>
		Students	365	2.63	1.402		
9	Multimedia such as text, graphics, motion, sound, images, animations, and digital video are used by teachers during the time of teaching,	Teachers	96	2.64	1.377	2.64	.918
		Students	365	2.65	1.407		
10	Teachers give individual assignments and projects to their students.	Teachers	96	3.79	1.095	3.88	.132
		Students	365	3.98	1.112		
11	Students are encouraged to develop group learning skills such as discussion and interpersonal skills.	Teachers	96	3.79	1.196	3.66	.072
		Students	365	3.53	1.403		

**Note:** P-value was calculated at  $\alpha= 0.05$  levels, and  $df= 459$

Scales;  $\leq 1.49$  = Strongly Disagree,  $1.5 - 2.49$  = Disagree,  $2.5 - 3.49$  = Undecided  
 $3.5 - 4.49$  = Agree,  $\geq 4.5$  = Strongly Agree

The result from the data in Table 5, concentrate on teachers' method of teaching at University of Hargeisa, as reported by respondents. In item 1, the mean scores of the teachers was 3.76 and that of the students was 3.70 in which teachers were teaching large number of students at a time was agreement for both groups of respondents. With an overall mean of 3.73 which shows agreement that teachers teach large number of students at a time. The T-Test result with p-value of  $0.659 > 0.05$  indicates that the two groups of respondents do not significantly differ in their agreement towards the item. This shows that teachers teaching of large number of students at a time were high to teacher respondents at the same time with the student respondents. Similarly, the data obtained from interviews made with faculty deans revealed that teachers teach large number of students at a time.

With regard to Table 5, item 2 the mean score on teachers generation of learners' interest, enthusiasm and appreciation was 2.85 for teachers and 2.34 for students which stands undecided and disagreement respectively. Also the overall mean of 2.46 shows disagreement. The T-Test result with p-value of  $0.000 < 0.05$  indicates that there is statistically significant difference between the responses of the two groups of respondents towards the item. Similarly, the data obtained from the interview made with the faculty deans reveals that teachers were creating their students' interest, enthusiasm and appreciation for the betterment of their students' learning.

As indicated in Table 5 item 3, the respondents' agreement or disagreement to the extent to which teachers encourage students' participation or involvement and success in their learning was considered.

Hence, the mean scores of the teacher and student respondents were 3.60 and 3.82 which shows agreement for both teachers and students, with an overall mean of 3.71 which also in the agreement side. The T-Test result with p-value of  $0.119 > 0.05$  proves that the two groups of respondents were not statistically significant different in their response on the item. Therefore one can say that teachers encourage students' participation moderately in order to succeed in their learning. Supporting this, Biggs (1996) and Kember (1996) have stated that students will learn more when they are actively engaged in the teaching learning process.

Similar to this Blake (2006:3) also states that students' active involvement and interaction facilitate their learning.

Regarding item 4, in Table 5 the mean scores of both the teachers and the students were 2.73 and 3.12 respectively, which indicates undecided for both of them. Also the overall mean of 2.92 indicates undecided result. The T-Test result with p-value of  $0.016 > 0.05$  indicates that both groups of respondents do not significantly differ in their average agreement towards the teacher's provision of the students with demonstrations which make them good observers. This confirms that teachers' provision of the students with demonstrations which make them good observers was not decided by the respondents.

In the same table item 5, the calculated mean scores of the two groups of respondents were 2.40 and 3.82 respectively, in which teachers enhance students critical thinking and skills of scientific investigation were disagree and agreement respectively. With an overall mean of 3.11 shows that undecided result. Therefore, the T-Test result with p-value of  $0.004 < 0.05$  proves that there is statistically significant difference between the responses of the two groups of respondents. This shows that the teachers' way of teaching in enhancing critical thinking and skills of scientific investigation was not there as supposed to be, which indicate that teachers did not enhance learners' critical thinking and skills of scientific investigation, at the same time it stands for low performance.

With regard to Table 5, item 6 in the mean scores of the teachers was 3.61 and that of students was 3.30 in which students are supported to learn how to discover and organize things in the teaching learning process were agree and undecided respectively. Also the overall mean of 3.45 shows undecided. The T-Test result with the p-value of  $0.043 > 0.05$  indicates that the two groups of respondent were not statistically significant different in their response on the item. This shows that teachers' support or help of their students to learn how to discover and organize things was high agreement even though the degree of agreement by the teachers is higher than that of the students.

As it was depicted in table 5 item 7, the mean scores of the two groups of respondents were 4.20 and 4.00 respectively, which shows agreement result of both groups of respondents towards the item. Also the overall mean of 4.10 shows that teachers use textbooks, handout notes and other printed materials in the instructional process was agreement. The T-Test result with p-value of



0.080 > 0.05 proves that the two groups of respondents were not statistically significant different in their response on the item. Therefore, it is clear that teachers use the above mentioned teaching resources to better facilitate effective teaching and learning process moderately.

Concerning item 8 in table 5, the mean scores of the teachers was 2.29 and that of the students was 2.63 in which teachers use audiotapes, videotapes, slide sequences, photographs, models, practical kits, tools and conventional printed materials in their own classrooms clearly showed disagreement and undecided respectively. With an overall mean of 2.46 which shows that teachers could not decide the best option that fits their choice and classroom practice. The computed T-Test result with p-value of 0.024 > 0.05 shows that the teacher respondents and student respondents do not significantly differ in their average ratings.

So far, the data obtained from the interviews made with the faculty deans showed that teachers did not use audiotapes, videotapes, slide sequences, photographs, models, practical kits, and tools while teaching their students.

When respondents asked how often teachers use multimedia such as text, graphics, motion, sound, images, animations and digital video, in the teaching learning process, as shown in Table 5, item 9 the calculated mean value of the teachers was 2.64 and that of students was 2.65 in which teachers use their vital hours the above list shows undecided response, with an overall mean of 2.64 undecided. The T-Test result with p-value of 0.918 > 0.05 proves that the two groups of respondents were not statistically significant different in their response on the item.

Therefore, one can say that teachers were unable to decide this item because the response being given revealed that the teachers' use of multimedia such as text, graphics, motion, sound, images, animations, and digital video while teaching their students was not existed.

At the same time, the data obtained from the interviews made with the faculty deans showed that teachers did not use multimedia such as text, graphics, motion, sound, images, animations, etc. for the teaching/learning activities in the classroom.

With regard to Table 5, item 10 depicts that the mean score of the teachers was 3.79 and that of the students was 3.98 in which the teachers and students agreed by giving individual assignments and projects to their students. Also, the overall mean of 3.88 shows that the teachers agreed this practice. The T-Test result with the p-value of 0.132 > 0.05, it can be concluded that the two

groups of respondents were not statistically significant different in their responses. In the same way, the data obtained from the interviews made with the faculty deans revealed that teachers were giving individual assignments and projects to their students in the teaching learning process with a high performance.

The result in Table 5, item 11 the mean scores of the teachers and students were 3.79 and 3.53 respectively, in which the two groups of respondents agreed that teachers encouraged to develop group learning skills such as discussion and interpersonal skills. With the overall mean of 3.66 which clearly shows agreement results in the process. This reveals that teachers' encouragement of their students to develop group learning skills was agreed. This indicates that, even though both groups of respondents have high level of agreement to the item, teacher respondents have relatively higher level of agreement to the item than the student respondents. The T-Test result with p-value of  $0.072 > 0.05$  indicates that the two groups of respondents do not significantly differ in their average ratings towards the item.

In summary, the overall teachers' method of teaching was computed in the above table, which definitely shows that teachers at University of Hargeisa employ most the teaching methods that absolutely help their students to fruitfully study the lesson.

## **6. Quality Indicators of Student Learning**

This part deals with the discussion of the data gathered from respondents on the quality indicators of student learning. The quality indicators of student learning were presented to respondents through questionnaires that they were required to rate the level of accomplishment of the teachers on the basis of a five point Likert scale. These five point scales range from strongly agree (=5) to strongly disagree (=1). Mean scores, standard deviations and t-test results were calculated from the responses. Within the five point ranges, three trisecting scores were used to make the analysis more clear as suggested by John Biggs and Catherine Tang (2012); these scores were 2.49, 3.49 and 4.49. Consequently, the results from the questionnaire items were analyzed with a mean value of  $\leq 1.49$  were never practices; from 1.5 to 2.49 rarely; from 2.5 to 3.49 were sometimes; from 3.5 to 4.49 often practiced and from 4.5 to 5.00 always practiced. Open-ended questions were also analyzed to strengthen and triangulate the quantitative findings from the questionnaire items and the close-ended ones separately. Besides, responses from the

interview were summarized to validate the findings during the process of presentation and analysis of all data in each close-ended item as necessary.

**Table: 6 Respondents view on Quality Indicators of Student Learning**

No	Items	Respondents	N	Mean	Std. Deviation	Overall Mean	p-Value
1	Teachers use various teaching methods to teach students.	Teachers	96	3.79	1.247	3.74	.480
		Students	365	3.69	1.293		
2	There is good academic staff/student ratio.	Teachers	96	2.51	1.304	2.60	.209
		Students	365	2.70	1.399		
3	The curricula are relevant to students' learning.	Teachers	96	2.95	1.387	3.01	.477
		Students	365	3.07	1.459		
4	Students acquired necessary skills and knowledge as a result of their learning.	Teachers	96	3.61	1.301	3.65	.567
		Students	365	3.70	1.272		
5	There is a good leadership and management system that facilitate student learning.	Teachers	96	2.84	1.402	2.65	.021
		Students	365	2.47	1.343		
6	Learning is highly integrated with the use of technologies (ICTs, computer, projectors, etc.).	Teachers	96	4.08	1.033	4.05	.606
		Students	365	4.02	1.095		

Note: P-value was calculated at  $\alpha = 0.05$  levels, and  $df = 459$

Scales;  $\leq 1.49$  = never,  $1.5 - 2.49$  = rarely,  $2.5 - 3.49$  = sometimes,  $3.5 - 4.49$  = often,  $\geq 4.5$  = Always.

It can be seen from Table 6 item 1 that, the mean score on teachers' use of various teaching methods to teach students was 3.79 for teachers and 3.69 for students in which teachers often use various methods as rated by the two groups. Also the overall mean of 3.74 shows that this is used at often times. The T-Test result with the p-value of  $0.480 > 0.05$  indicates that the average agreement levels by teachers and students have no statistically significant difference to one another. Therefore, one can say that teachers use various teaching methods to effectively teach

their students. That is, teachers' use of various teaching methods to teach students was moderate. Derebssa (undated: 1) states that student learning requires the teachers' use of different methodologies and pedagogies. Similarly, Firdissa (2005: 50) posited that since the same method does not work for every student, HEI teachers should be able to use a variety of teaching methods so as to address the individual needs and preferences of the students they teach.

For item 2 in the same table the mean scores of teacher and student respondents were 2.51 and 2.70 respectively, in which there is good academic staff/student ratio sometimes as rated by both groups. With an overall mean of 2.60 which shows there is good academic staff/student ratio sometimes. The T-Test result with the p-value of  $0.209 > 0.05$  reveals that there is no statistically significant difference between the two groups of respondents towards the presence of academic staff-to-student ratio.

Regarding the curricula's relevance for student learning (item 3), the mean scores of the teachers was 2.95 and that of the students was 3.07 which indicates that the curricula is relevant for student learning sometimes and often respectively. Also the overall mean of 3.01 shows that the curricula are sometimes relevant for student learning. The T-Test result with the p-value of  $0.477 > 0.05$  proves that the two groups of respondents were not statistically significant different in their response on the item. Therefore, this indicates that the relevance of the curricula to students' learning was utilized by the teachers to make the teaching learning process effective.

For item 4 in Table 6, the mean scores of teacher and student respondents were 3.61 and 3.70 respectively which shows the acquisition of the necessary skills and knowledge of students as a result of their learning was very often as rated by both teachers and students. The overall mean of 3.65 also shows that this is often practiced. The T-Test result with the p-value of  $0.567 > 0.05$  shows that there is no statistically significant difference between the responses of the two groups of respondents. This indicates that the acquisition of the necessary skills and knowledge of students as a result of their learning was relatively good.

Regarding item 5 in Table 6, the existence of good leadership and management system that facilitate student learning was also rated by each group of respondents. The mean scores of the teachers were 2.84 and that of the students was 2.47 in which it indicates sometimes and rarely respectively. Also the overall mean of 2.65 reveals that the existence of good leadership and management system facilitates student learning sometimes. The T-Test result with p-value of

0.021 > 0.05 shows that the two groups of respondents were not statistically significant different in their response on the above item

Concerning item 6 of similar table, the mean scores of teachers and students when they were asked that learning is highly integrated with the use of technologies, the mean scores of the teachers was 4.08 and that of the students was 4.02 which show that learning is highly integrated with the use of technologies often for both groups of respondents. The overall mean of 4.05 shows that teachers integrate learning with the use of technologies often. The T-Test result with the p-value of 0.606 > 0.05 confirms that there is no statistically significant difference between the responses of the two groups of respondents.

An overall quality indicator of student learning was computed by aggregating the responses of the six quality indicators of student learning items, which resulted that most of the teachers at University of Hargeisa use effectively the materials that will enhance the quality of student learning.

Teachers and students were asked the way teachers were assessing the performances of their students in their learning. Twelve point seven percent (12.7%) of the teacher respondents responded that they were assessing the performances of their students by using the summative assessment methods, such as mid and final examinations.

Whereas eighty seven point three percent (87.3%) of the teacher respondents replied that they were assessing the performances of their students using the formative/continuous assessment methods such as tests, quizzes, group and individual assignments (presentations, term paper and project works), attendance, and participation on day-to-day activities and summative assessment methods such as mid exam as needed and final examinations most of the time.

Regarding this, eighteen point nine percent (18.9%) of the student respondents replied that teachers were assessing the performances of their students using the mid and final examinations most of the time and assignments sometimes. In contrast to this, eighty one point one percent (81.1%) replied that teachers were using both continuous assessment methods (quizzes, tests, group and individual assignments/work, projects, attendance, and participation) and summative assessment methods (mid-term sometimes and final examinations) to assess the performance of their students.

Therefore, this indicates that teachers were assessing the performance of their students by using continuous assessment methods such as tests, quizzes, assignments (individual and group), project work, attendance and participation. They were also using final examination and mid-term exam sometimes to assess the performance of their students. This idea is similar to the idea found on ICDR (1999) which state that today schools and universities are turning to continuous assessment where by recording of the students' performance in nearly everything s/he does during her/his course are kept. Blake (2006:3) also stated that meaningful assessment is both formative and summative.

The data obtained from the interviews made with the faculty deans about the actual teaching practice shows that even though there are many challenges to quality of student learning, the actual teaching learning process in ensuring quality of student learning was at a medium level. This was the result of teachers' commitment in helping their students to achieve what they are expected to achieve. Some of the challenges to quality of student learning at the University, according to the faculty deans, include lack of adequate classrooms, lack of adequate offices, and lack of adequate educational facilities and resources in order to wisely prepare modules handouts for their students.

The faculty deans were discussing with the higher officials and management bodies to fulfill the necessary educational facilities and resources for student learning, and to arrange situations in which adequate classrooms are constructed for students and offices for the teachers at large.

## **Rank Analysis**

Teachers and students presented to rank in order nine teaching methods from 1<sup>st</sup> to 9<sup>th</sup> for the most to the least employed method of teaching by teachers. The table below presents the number of respondents rated each method of teaching in rank from the most employed to the least employed. The weighted average rank by each group of respondent is computed for each method of teaching. The weighted average rank is then used to generate the RANK for each method by each of the respondent groups.

**Table 7: The rank of nine methods of teaching as per their employment in the classroom**

Teaching Methods	Respondents	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9	RAN K
Lecture	Teachers	59	5	13	6	8	3	2	0	1	1
	Students	298	12	18	14	13	5	19	21	1	1
Demonstration	Teachers	8	16	17	19	16	11	4	5	3	3
	Students	23	33	44	140	20	4	90	46	4	4
Inquiry	Teachers	2	7	12	15	17	10	16	17	5	5
	Students	5	27	37	52	81	66	65	67	7	7
Discovery	Teachers	0	17	12	10	19	23	3	12	6	6
	Students	3	35	47	30	121	120	20	24	6	6
Laboratory	Teachers	2	4	17	12	10	13	15	23	7	7
	Students	32	30	39	42	72	51	10	124	5	5
Individualized	Teachers	3	6	11	16	10	24	11	15	4	4
	Students	26	62	156	37	41	30	33	15	3	3
Discussion	Teachers	8	41	14	10	4	11	2	6	2	2
	Students	30	152	64	27	41	25	33	28	2	2
Role play	Teachers	19	17	5	15	6	9	8	17	8	8
	Students	4	35	36	112	96	26	41	50	8	8

Lecture method was found to be ranked as the 1<sup>st</sup> mostly employed method of teaching by both teacher and student respondents. This method was rated as rank 1 by 59 of the teacher respondents and 298 of the student respondents. Teachers and students also have similar rank to the discussion method as the 2<sup>nd</sup> most employed teaching method in favor of the majority of teachers 41 and the majority of students 152. Supporting this, McKimm and Jollie (2007) note that lecture method is the most widely used teaching method in Higher Education Institutions. In the same way, Sajjad (2004) state lecture method is the most commonly used teaching by many teachers of higher education.

For the 3<sup>rd</sup> most employed teaching method, teachers' rating identifies demonstration while students' ranking identifies individualized method. Teachers' and students' ranking for the 3<sup>rd</sup> and 4<sup>th</sup> place was found to be interchangeable. That is, teacher respondents ranked demonstration method as the 3<sup>rd</sup> and individualized method as the 4<sup>th</sup> method employed, whereas student respondents ranked individualized method as the 3<sup>rd</sup> and demonstration as the 4<sup>th</sup> employed method of teaching.

Inquiry method is placed as the 5<sup>th</sup> by teachers whereas it is 7<sup>th</sup> according to the student respondents ranking. Laboratory method is ranked 7<sup>th</sup> by the teacher respondents and the 5<sup>th</sup> by the student respondents. However, both respondent groups placed discovery method as the 6<sup>th</sup> employed method of teaching and role play as the 8<sup>th</sup> method of teaching.

In order to see the congruence and consistence of the two groups of respondents' ranking, the rank correlation was computed and tested for its significance. The resulting rank correlation,  $r = 0.821$ , is a significant correlation with corresponding p-value of  $0.023 > 0.05$ . This result shows the similarity, if not identical, of the ranks given to each method of teaching by teachers and students. Therefore, it can be inferred that there is high correlation between the rankings of the two groups of respondents.

Similarly, the data obtained from the interviews made with the faculty deans shows the lecture method is the most commonly employed method of teaching by teachers at University of Hargeisa. Next to the lecture method, discussion and individualized methods are also most commonly employed by teachers at the University. In addition, demonstration, inquiry, discovery, laboratory and role play methods of teaching are sometimes employed by teachers.

Teachers and students were asked how teachers use the aforementioned methods of teaching to address the different needs of students. Thirty point nine percent (30.9%) of the teacher respondents replied teachers did not know whether the teaching methods they employed or use addresses the needs of their students or not, where as sixty nine point one percent (69.1%) of them responded that teachers use the aforementioned methods of teaching to address the different needs of their students depending on the situation, the availability of teaching materials and resources, the nature of the course (the subject matter,) the topic to be delivered, objectives of the lesson, daily lessons, and the number of students within a class. One of the teacher respondents said:



*“I use different teaching methods as frequently as the subject matter requires in addressing the needs of my students. For instance, I give group projects, assignments and presentations whenever there is a need to do that. I use debate whenever the content is a debating issue. I also use demonstration method whenever the content is more of practical. If it is laboratory class I use laboratory method. I also use different teaching methods by identifying my students’ background knowledge, prior experience, communication skills, their number within a class, and even environmental conditions for classroom arrangement.”*

Besides this, twenty two percent (22%) of the student respondents responded that teachers did not address their different needs by using different methods of teaching while the rest eighty percent (78%) of them responded that teachers were addressing the different needs of their students as much as possible by using different teaching methods depending on the availability of teaching materials and resources, the nature of the course/content, the topic to be delivered, objectives of the lesson, and the number of students within a class. One of the student respondents said:

*“It depends on the content of the subject matter and the resources for teaching. For example, if the content is more of theoretical aspect the teacher uses the lecture method. If the content is more of practical aspect the teacher uses demonstration or laboratory methods. If the content needs students’ collaboration the teacher uses discussion, debate and other methods relevant to the content. This could be done by knowing the understanding level of students and their prior experiences or backgrounds.”*

Therefore, this indicates that teachers were employing different teaching methods to address the different needs of their students depending on the availability of teaching materials and resources, the nature of the course/content, the topic to be delivered, objectives of the lesson, and the number of students within a class. Supporting this, Firdissa (2005:51) state that effectiveness in learning depends upon a teacher’s ability to select and use the appropriate teaching strategy with the appropriate time.

Teachers and students were also asked whether teachers’ were encouraging students to interact with each other in the learning activities or not. From the teacher respondents, seven point three

percent (7.3%) of them responded that teachers did not encourage their students to interact with each other in the learning activities whereas ninety point two percent (92.7%) of the teacher respondents also responded that teachers were encouraging their students to interact with each other in the learning activities by giving group work/project work, group discussion activities, group assignments and presentations, raising debating issues, using question and answer techniques.

*"I encourage my students' interaction with each other by giving group discussion activities, question and answer, group assignments and presentations, debate, group and pair works or buzzes group, etc. For instance, I group students to discuss on a certain issue. I tell them to select a leader from each group. I give time for discussion. Finally, the leaders from each group are required to reflect on what they have discussed with their group members."*

With regard to this, nine point eight percent (9.8%) of the student respondents replied that teachers did not encourage their students to interact with each other in the learning activities. One of the student respondents said that "our teachers did not encourage student interaction with each other even they did not appreciate it." The rest of the respondents ninety point two percent (90.2%) responded that teachers were encouraging their students to interact with each other in the learning activities by using group discussion, projects, assignments, presentations, question and answer, debate, field trip, and worksheets.

Therefore, one can understand from this that teachers were encouraging their students to interact with each other in the learning activities using different mechanisms such as group discussion, question and answer, group projects, group assignments, group presentations, field trips, work sheets, and debate.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter deals with the summary of the major findings, the conclusion data from the findings, and recommendations.

#### 5.1. Summary

The purpose of this study was to investigate teachers' teaching effectiveness and its implication on quality of student's learning at University of Hargeisa. Therefore, in order to attain the objectives of the study, the following basic questions were stated and answered. The basic research questions were:

1. What are the teaching methods dominantly used by teachers at University of Hargeisa?
2. What does the academic achievement of students' look like at University of Hargeisa?
3. What would be the relationship between teaching methods dominantly used and students' academic achievement at University of Hargeisa?

In this study, the survey study of research with both a qualitative and quantitative research method was employed in this study. The related literature was reviewed and documented. The subjects of the study was 102 teachers and 400 students, they were selected by using simple random sampling technique, 4 department heads and 6 deans of faculties were selected using purposive sampling technique. In addition, 10 classroom teachers were interviewed.

The study employed a combination of tools as data collection instruments, questionnaires with teachers and students, semi-structured interview with department heads and dean of faculties were conducted as planned. The return rates of the questionnaires were 94.1% from teachers, and 91.2% from students respectively.

In this study, analysis tools that the researcher thought relevant and appropriate for collecting data for the study were used. The statistical package for Social Science [SPSS] Computer Software Programs and quantitatively analyzed by using descriptive statistics.

On the other hand, the data which is solicited by the use of open-ended questions and interview was qualitatively analyzed and interpreted. Therefore, based on the analysis made, the following are the major findings of the study in relation to research questions.

### **5.1.1. Major Findings**

The following are the major findings of the study.

#### **The Effectiveness of Teachers' Teaching Practices**

With regard to the effectiveness of teachers' teaching practices, the teacher and the student respondents with their average mean value 3.92 and 3.59 respectively showed their agreement that teachers' teaching practices were effective. Similarly, the data revealed that there was statistically significant difference between the two groups of respondents.

Regarding the teachers' use of rewards and reinforcers, the majority of the teachers responded that teachers were using rewards like verbal praises and extra marks or bonuses to motivate their students while student respondents indicated that teachers were using rewards and reinforcers particularly verbal praises in motivating their students' performances.

Concerning teachers' creating of appropriate learning situations, teachers were creating situations in which appropriate learning is taking place by maintaining good relationship with the students, respecting, helping and guiding them in their learning, arranging appropriate time for teaching, making objectives clear, employing appropriate methods of teaching, identifying students' background, and giving freedom of asking and participation. Similarly, 66.8% of the student respondents replied that teachers were creating situations in which appropriate learning is taking place by establishing good rapport, using method of teaching which are appropriate to the content, providing the necessary materials, adjusting the class time, and avoiding disturbances.

With respect to teachers' asking/allowing, of their students' to give constructive feedback on each others' work, 89.1% of the teacher respondents replied that teachers did not ask their students to give constructive feedback on each others' work and 82.3% of the student respondents said that teachers did not ask their students to give constructive feedback on each others' work.

#### **The Considerations in Choosing Teaching Methods**

With regard to the considerations in choosing teaching methods, the teacher and student respondents showed agreement with their overall means 4.25 and 3.57 respectively that teachers were considering those considerations in choosing methods of teaching before choosing them.

The data revealed that there was statistically significant difference between the two groups of respondents at some points.

Concerning the teachers' consideration of their teaching characteristics (such as their knowledge, competencies, skills, experiences, etc.), 85.5% of the teacher respondents replied that teachers were considering their teaching characteristics before choosing teaching methods. Equally, 74.5% of the teacher respondents indicated that teachers were considering the time, space, class size, facilities and resources before choosing teaching methods to be employed.

### **Teachers' Methods of Teaching**

With respect to the teachers' methods of teaching, the teacher and student respondents with their overall mean values 3.79 and 3.53 respectively revealed that they had higher level of agreement on teachers' methods of teaching items with the exception of item 2 in which the mean scores of teachers and students were 2.85 and 2.34, and item 5 in which the mean scores of teachers and students were 2.40 and 3.82. The data showed that they were statistically significant different in their responses.

With regard to the teaching methods employed, lecture method was found to be the most commonly employed method as reported by both groups of the respondents. Discussion method was the second most commonly employed method of teaching as to the respondents. In addition, individualized and demonstration methods were employed as the third and fourth by the student respondents and vice versa by the teacher respondents. Inquiry, discovery and laboratory methods were also employed by teachers sometimes. Therefore, in order to see the congruence and consistency of the two groups of respondents' ranking, the rank correlation was computed and tested for its significance. The resulting rank correlation,  $r = 0.821$ , was a significant correlation with corresponding p-value of  $0.023 < 0.05$ . Similarly, the data obtained from the interview revealed that lecture method was the most commonly employed method of teaching. Discussion, individualized, and demonstration methods were also employed most commonly next to the lecture method.

Furthermore, 69.1% of the teacher respondents replied that teachers were using the aforementioned methods of teaching to address the different needs of their students depending on the availability of teaching materials/resources, the nature of the course/subject matter the topic to be delivered, objectives of the lesson, and the number of students within a class. Regarding

this, 80% of the student respondents replied that teachers were using those methods of teaching to address the different needs of their students depending on the content of the subject matter and the resources available for teaching.

As to the teachers' encouragement of their students to interact with each other in the learning activities, 92.7% of the teacher respondents replied that teachers were encouraging their students to interact with each other in the learning activities by giving group work/project, group discussion, group assignments and presentations, raising debating issues, using questions and answers. Besides this, 90.2% of the student respondents said that teachers were encouraging their students to interact with each other in the learning activities by using group discussion, projects, assignments, presentations, question and answers, debate, field trip, and worksheets.

### **Quality Indicators of Student Learning**

Regarding the quality indicators of student learning, the teacher and student respondents revealed with their overall mean value 2.91 and 2.97 respectively that both groups of respondents had a moderate level of agreement to the quality indicators of student learning items. The data confirmed that there was no statistically significant difference between the two groups of respondents.

Concerning the teachers' assessment of the performances of their students, 87.3% of the teacher respondents replied that teachers were assessing the performances of their students using the formative/continuous assessment methods such as tests, quizzes, group and individual assignments (presentations, term papers and project works), attendance, and participation on day-to-day activities, and summative assessment methods such as mid exam as needed and final examination most of the time.

Besides this, 81.1% of the student respondents reported that teachers were using both continuous assessment methods (quizzes, tests, group and individual assignments, projects, attendance, and participation) and summative assessment methods (mid-term exam sometimes and final examination) to assess the performances of their students.

The data obtained from the interview about the actual teaching practice showed that even though there are many challenges to quality of student learning, the actual teaching learning process in ensuring quality of student learning was at a medium level because of teachers' commitment in

helping their students. Some of the challenges to quality of student learning at the University were lack of adequate classrooms, lack of adequate offices, and lack of adequate educational facilities and resources. In solving these challenges, teachers were using the available educational facilities and resources wisely, and prepare modules and handouts for their students. The faculty deans were discussing with the higher officials or management bodies to fulfill the necessary educational facilities and resources for student learning, and to arrange situations in which adequate classrooms are constructed for students and offices for teachers.

## 5.2. Conclusions

Based on the major findings, the following conclusions were made:

Ideally, the major aspects of research in this study dealt with the teachers' effectiveness of using teaching methods in the area of considerations in choosing teaching methods, managing and supporting teaching learning process, creating conducive and healthy environment, standards of quality learning and assessment evaluations.

Successful teachers have very strong and clear objectives and set of values for their teaching which heavily influences the quality of student learning, improvement of classroom teaching learning process and instructional programs conducive to students' learning and professional growth. Even though these are their major roles, the effectiveness of University teachers was moderately carried out.

Therefore, the effectiveness of teachers' teaching methods at UOH was moderate, and as a result it is possible to conclude that, it affects the quality of learning and has a direct implication on student learning in general and students' achievement in particular.

- With regard to the teaching effectiveness, teachers were highly arranging consultation hours, and using examples, illustrations and demonstrations to explain and clarify the lessons or contents they teach. They were also highly informing the lesson objectives, giving summary at the end, and using attention gaining activities, ideas, concepts and devices while teaching their students. This shows that teachers were effective in their day-to-day teaching practices.
- Some teachers' were teaching large number of students at a time, creating learners' interest, enthusiasm, appreciation, and encouraging students' participation or involvement and success in their learning. The provision of the students with demonstrations which make them good observers, and teachers' way of teaching in enhancing critical thinking and skills of scientific investigation were very high. This indicates that teachers were effective in helping their students to learn and understand the content
- With respect to the teaching methods employed, lecture, discussion, individualized and demonstration methods were found to be the most commonly employed methods of teaching as compared to others (inquiry, discovery and laboratory methods). Teachers



were using the aforementioned methods of teaching to address the different needs of their students depending on the availability of teaching materials/resources, the nature of the course and content/subject matter, the topic to be delivered, the objectives of the lesson, and the number of students within a class.

- Teachers were using rewards and reinforcers particularly verbal praises, and extra credits, marks or bonuses, and learning materials to motivate their students who were performing very well in their learning. Appropriate learning situations were created by teachers; they also created situations by establishing and maintaining good rapport and relationship with their students. In addition, teachers were highly considering the age and maturity level of their students, background knowledge and existing skills, the content of the subject matter, instruction, and objectives to be achieved before choosing teaching methods.
- Students were encouraged to interact with each other in the learning activities by their teachers through group work/project, discussion activities, assignments and presentations, etc. However, students' performances were assessed using formative/continuous assessment methods such as tests, quizzes, group and individual assignments (presentations, term paper and project works), attendance, and summative assessment methods such as mid exam and final examinations. This indicates that students' performances were assessed by both methods.

### **5.3. Implications and Recommendations**

The study shows that teachers were effective in bringing quality of student learning even though there were some areas that were not achieved. Teachers were in a good position in their teaching effectiveness or day-to-day teaching practices which has a positive implication for the quality of student learning. Teachers were also considering the factor before choosing methods of teaching that help them control the instruction and positively ensures the quality of student learning. The study also revealed that the teachers' methods of teaching has a positive implication for quality of student learning as they were employing different teaching methods which enhance the quality of student learning even though some other methods were not emphasized. The quality indicators of student learning were moderately emphasized in which its positive implication for quality of student learning was not bold. Therefore, on the basis of the findings and the conclusions drawn, the following recommendations were forwarded.

1. The Ministry should upgrade capacity of Higher Institution Teachers through STEPS program that are currently in the field. The entire teacher trainings should be coordinated through the Ministry to target the needy areas of classroom teaching. The current practice is that agencies identify independently areas of strengthening and tailor short in-service courses for teachers to address the shortcomings, but a better approach would be for the Ministry to identify the teachers' weaknesses and request agencies to fund appropriate training while the Ministry remains the lead in the training programmer. Additionally, they have to think in terms of quality oriented but not quantity.
2. The study revealed that teachers were not asking/allowing their students to give constructive feedback on each others' work instead they personally were giving feedback on the performances of their students. Thus, teachers should allow their students to give constructive feedback on each others' work.
3. Teachers' use of mediated materials such as audiotapes, videotapes, slide sequences, photographs, models, practical kits and tools in their classroom, and multimedia such as text, graphics, motion, sound, images animations, and digital video while teaching their students was low. Therefore, it is recommended that teachers should use these mediated materials and multimedia while teaching their students for achieving the betterment of student learning.

4. The study revealed that teachers' use of various teaching methods in teaching their students was moderate. Thus, teachers should highly use various/different teaching methods in teaching their students for the fact that there is no single, reliable and multi-purpose method of teaching for the betterment of the teaching-learning process and the attainment of the instructional objectives.
5. Academic staff-to-student ratio (i.e. 1:40 averagely) was moderate. Therefore, the management bodies should adjust mechanism by which the academic staff-to-student ratio becomes proportional to each other. That is teachers have to be recruited to achieve the UNESCO and GTP target of 1:20. But, it might not be feasible in African countries, so, there should be monitoring and evaluation in order to know that they are producing well qualified learners.
6. The relevance of curricula to the students' learning was moderate. Therefore, the management bodies (president, vice presidents, faculty deans, and department heads) should work hard in which the curricula becomes highly relevant to the students in terms of addressing their needs for employment and life.
7. The Ministry should explore ways of improving the quality assurance mechanisms in higher institutions. This can be organized through training of an Inspectorate Department, known as TNA (Training Need Assessment).
8. The integration of learning with the use of technologies was very low. Therefore, the management bodies should fulfill different technologies which in turn help teachers to integrate learning with technologies for better student learning.
9. The Ministry needs to review its budgetary allocation to higher institutions. The current allocation cannot sufficiently improve the quality and relevance of University education. The entire Ministry of Education budget at 7% of the national budget (the Somaliland annual budget is less than \$30 million) is far below the needs.
10. The current salaries for higher institution teachers need to be boosted to attract and retain the teachers in the University. The lower salaries encourage teachers to concentrate in private Universities which pay better.

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## APPENDIX I

### JIMMA UNIVERSITY

#### COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCE DEPARTMENT OF TEACHER EDUCATION AND CURRICULUM STUDIES

##### Questionnaire to be filled by teachers

##### Dear teacher,

I would like to express my heartfelt thanks and appreciation for your time and sincere cooperation to fill this questionnaire. The questionnaire is designed to gather relevant and authentic data for master's thesis entitled "To investigate teachers' teaching effectiveness and its implications on quality of student's learning at University of Hargeisa". The success of this study is highly dependent on the quality of your response and I sincerely ask you to provide accurate and honest response to the items asked below. Your response will be kept confidential and used only for this academic research purpose.

##### Directions:

- You are not required to write your name.
- Put "√" mark in the space provided in front of each item.
- The questionnaire has five parts. Please try to fill all the items.
- Please choose the one which you think is the most appropriate response to each question.

##### PART ONE: BACKGROUND INFORMATION

1. Faculty: \_\_\_\_\_ Field of Specialization: \_\_\_\_\_
2. Sex: Male  Female
3. Age: 25  26-30  31-35  36-40  above 40
4. Educational level: BA/BSc/BED  MA/MSc  PhD
5. Teaching experience in year at University of Hargeisa. 1-5  6-10  11-15   
16-20  21-25   >26
6. Workload in credit hour per week: Less than 5  6-11  12-18  >18

**PART TWO: Items Related to the Effectiveness of Your Teaching Practice**

Please indicate the extent to which you apply the day-to-day practice of your teaching by putting “√” mark. There are five alternatives and their value is indicated as follows.

1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always

No	Statements	Rating Scale				
		1	2	3	4	5
1.	I know each of my students by their names					
2.	I have arranged consultation hours for my students					
3.	I use examples, illustrations and demonstrations to explain and clarify the lesson or content I teach					
4.	I inform my students the lesson objectives					
5.	I give summary at the end of each lesson					
6.	I use attention gaining activities, ideas, concepts, and devices while teaching					
7.	I use rewards (verbal praise, extra credit, etc.) to motivate my students					
8.	I ask my students to give constructive feedback on each other’s work					

**PART THREE: Items Related to Considerations’ in Choosing Teaching Methods**

Please indicate the extent to which you apply the considerations in choosing teaching methods in the teaching learning process by putting “√” mark. There are five alternatives and their value is indicated as follows.

1 = Strongly Disagree 2 = Disagree 3 = Undecided 4 = Agree 5 = Strongly Agree

No	Statements	Rating Scale				
		1	2	3	4	5
9.	I consider the age and maturity level of my students					
10.	I recognize my students' background knowledge and existing skills					
11.	I consider content of the subject-matter or the instruction					
12.	I consider learning objectives or outcomes to be achieved					
13.	I consider my teaching characteristics (knowledge, skills, experiences, etc.) before choosing teaching methods					
14.	I consider the time, space/class size, facility and resources before choosing teaching methods					

#### **PART FOUR: Items Related to Teachers' Methods of Teaching**

Please indicate the extent to which you apply methods of teaching in the teaching learning process by putting “√” mark. There are five alternatives and their value is indicated as follows.

1 = Strongly Disagree 2 = Disagree 3 = Undecided 4 = Agree 5 = Strongly Agree

No	Statements	Rating Scale				
		1	2	3	4	5
15.	I am teaching large number of students at a time by using different teaching methods					
16.	My way of teaching creates learners' interest, enthusiasm and appreciation					
17.	I encourage students' participation/ involvementfor success in their learning					
18.	Students are provided with demonstration which make them good observers					
19.	My teaching enhances critical thinking and skills of scientific investigation					
20.	I help my students to learn how to discover and organize things					
21.	I use textbooks, handout notes, and other printed materials to teach my students					

22.	I use audiotapes, video tapes, slide sequences, photographs, models, practical kits, tools, and conventional printed materials in my classroom					
23.	I use multimedia such as text, graphics, motion, sound, images, animations and digital video while teaching my students					
24.	I give individual assignments and projects to my students					
25.	I encourage my students to develop group learning skills such as discussion and interpersonal skills					

26. Please rank the following teaching methods by writing the top three methods that you use more frequently.

1. Lecture method \_\_\_\_\_
2. Demonstration method \_\_\_\_\_
3. Inquiry method \_\_\_\_\_
4. Discovery method \_\_\_\_\_
5. Individualized method \_\_\_\_\_
6. Laboratory Method \_\_\_\_\_
  
7. Discussion \_\_\_\_\_
  
8. Individual Assignments and Projects \_\_\_\_\_
  
9. Others \_\_\_\_\_

### **PART FIVE: Items Related to Quality Indicators of Student Learning**

Please indicate the extent to which teachers including you emphasize on quality indicators of student learning by putting “√” mark. There are five alternatives and their value is indicated as follows.

1= Never 2= Rarely 3= Sometimes 4= Often 5= Always.

No	Statements	Rating Scale				
		1	2	3	4	5
27.	Teachers use various pedagogical methods to teach students					
28.	There is good academic staff/student ratio					
29.	The curricula are relevant to students' learning					
30.	Students acquired necessary skills and knowledge as a result of their learning					
31.	There is a good leadership and management system that facilitate student learning					
32.	Learning is highly integrated with the use of technologies (ICTs, computers, projectors, etc.)					

33. How do you assess the performances of your students in their learning?

\_\_\_\_\_

\_\_\_\_\_.

34. What are the various challenges you face in using different teaching methods?

\_\_\_\_\_

\_\_\_\_\_.

35. What solutions do you suggest to alleviate the challenges and to improve the teaching learning process? \_\_\_\_\_

\_\_\_\_\_.

36. Other Comments \_\_\_\_\_.

**Many thanks in advance for your cooperation!**

## APPENDIX II

### JIMMA UNIVERSITY

#### COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCE DEPARTMENT OF TEACHER AND CURRICULUM STUDIES.

##### Questionnaire to be filled by Students

Dear student,

I would like to express my heartfelt thanks and appreciation for your time and sincere cooperation to fill this questionnaire. The questionnaire is designed to gather relevant and authentic data for master's thesis entitled "To investigate teachers' teaching effectiveness and its implications on quality of student's learning at University of Hargeisa". The success of this study is highly depend on the quality of your response and I sincerely ask you to provide accurate and honest response to the items presented below. Your response will be kept confidential and used only for this academic research purpose.

Directions:

- You are not required to write your name.
- Put "√" mark. In the space provided in front of each item.
- The questionnaire has five parts. Please try to fill all the items.
- Please choose the one which you think is the most appropriate response to each question.

##### Part One: Background Information

1. Faculty: \_\_\_\_\_
2. Sex: Male  Female
3. Age: 20-25  26-30  31-35  36-40  above 40
4. Educational level: BA/BSc/BED student  MA/MSc student
5. Year of stay in University of Hargeisa: 1<sup>st</sup> Year  2<sup>nd</sup> year  3<sup>rd</sup> year  and above

##### Part Two: Items Related to the Effectiveness of Teachers' Teaching Practice

Please indicate the extent to which teachers who has taught you apply the day-to-day practice of their teaching by putting "√" mark. There are five alternatives and their value is indicated as follows.

1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always.

No	Statements	Rating Scale				
		1	2	3	4	5
1.	Teachers know their students by name					
2.	Teachers arrange consultation hours for their students					
3.	Teachers use examples, illustrations and demonstrations to explain and clarify the lesson or content to their students					
4.	Teachers inform their students the objectives of the lesson					
5.	Teachers give summary at the end of each lesson					
6.	Teachers use attention gaining activities, ideas, concepts, and devices while teaching their students.					
7.	Teachers use rewards (verbal praise, extra credit, etc.) to motivate students					
8.	Teachers ask students to give constructive feedback on each other's work					

### Part Three: Items Related to Considerations in Choosing Teaching Methods

Please indicate the extent to which teachers who has taught you emphasize on the considerations in choosing teaching methods in the teaching learning process by putting “√” mark. There are five alternatives and their value is indicated as follows.

1 = Strongly Disagree 2 = Disagree 3 = Undecided 4 = Agree 5 = Strongly Agree



No	Statements	Rating Scale				
		1	2	3	4	5
9.	Teachers consider the age and maturity level of their students					
10.	Teachers recognize students' background knowledge and existing skills					
11.	Teachers consider content of the subject-matter or the instruction					
12.	Teachers consider learning objectives or outcomes to be achieved					
13.	Teachers consider their teaching characteristics (knowledge, skills, experiences, etc.) before choosing teaching methods					
14.	Teachers consider the time, space/class size, facility and resources before choosing teaching methods					

#### Part Four: Items Related to Teachers' Methods of Teaching

Please indicate the extent to which teachers who taught you apply methods of teaching in the teaching learning process by putting “√” mark. There are five alternatives and their value is indicated as follows.

1 = Strongly Disagree 2 = Disagree 3 = Undecided 4 = Agree 5 = Strongly Agree

No	Statements	Rating Scale				
		1	2	3	4	5
15.	Teachers are teaching large number of students at a time					
16.	Teachers generate learners' interest, enthusiasm and appreciation					
17.	Students' participation is encouraged for their learning success					
18.	Students are provided with demonstrations which make them good observers					
19.	Learning is enhanced my critical thinking and skills of scientific investigation					
20.	Students are supported to learn how to discover and organize things					
21.	Teachers use textbooks, handout notes and other printed materials in the instructional process					

22.	Teachers use audiotapes, videotapes, slide sequences, photographs, models, practical kits, tools, & conventional printed materials in their own classrooms.					
23.	Multimedia such as text, graphics, motion, sound, images, animations, and digital video are used by teachers during the time of teaching					
24.	Teachers give individual assignments and projects to their students					
25.	Students are encouraged to develop group learning skills such as discussion and interpersonal skills					

26. Please rank the following teaching methods by writing the top three methods that your teacher uses most frequently.

1. Lecture method \_\_\_\_\_
2. Demonstration method \_\_\_\_\_
3. Inquiry method \_\_\_\_\_
4. Discovery method \_\_\_\_\_
5. Individualized method \_\_\_\_\_
6. Laboratory method \_\_\_\_\_
  
7. Discussion method \_\_\_\_\_
  
8. Individual assignments and projects \_\_\_\_\_
  
9. Others \_\_\_\_\_

### **Part Five: Items Related to Quality Indicators of Student Learning**

Please indicate the extent to which your teachers who has taught you emphasize on quality indicators of student learning by putting “√” mark. There are five alternatives and their value is indicated as follows.

1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always.

No	Statements	Rating Scale				
		1	2	3	4	5
27.	Teachers use various teaching methods to teach students					
28.	There is good academic staff/student ratio					
29.	The curricula are relevant to students' learning					
30.	Students acquired necessary skills and knowledge as a result of their learning					
31.	There is a good leadership and management system that facilitate student learning					
32.	Learning is highly integrated with the use of technologies (ICTs, computer, projectors, etc.)					

33. How do teachers assess students' performances in their learning?

\_\_\_\_\_

\_\_\_\_\_.

34. What are the various challenges you face in learning different teaching methods?

\_\_\_\_\_

\_\_\_\_\_.

35. What solutions do you suggest to improve the teaching learning process? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_.

36. Other Comments \_\_\_\_\_.

**Many thanks in advance for your cooperation!**

**APPENDIX III**  
**JIMMA UNIVERSITY**  
**COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCE**  
**DEPARTMENT OF TEACHER EDUCATION AND CURRICULUM STUDIES**

Dear Sir/Madam,

Interview guiding questions for faculty deans and Head of department's

The purpose of this interview is to gather information from faculty deans and head of department's about methods of teaching and their effects on student achievement at University of Hargeisa.

1. What are the dominant teaching methods teachers use in the classroom at University of Hargiesia?
2. How do teachers make their teaching effective?
3. What important factors do faculty consider when selecting teaching methods?
4. Faculty go through learner-centered training, how is this reflected in their classrooms?
5. Can you explain some challenges to implementing learner-centered method?
6. Which teaching method do you think is best for student academic achievement at the University?
7. Are there challenges to student academic achievement at the University? If yes, what are those challenges and what solutions can you suggest to improve the teaching learning process and improve student achievement?

No	Challenges	Recommendations
1		
2		
3		
4		
5		

**Many thanks for your cooperation!**

## APPENDIX IV

### JIMMA UNIVERSITY

#### COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCE DEPARTMENT OF TEACHER EDUCATION AND CURRICULUM STUDIES

##### Classroom Observation Checklist

In writing detail accounts of classroom interactions, the following checklist was employed as evidence to the final report. To summarize the observations we use total scores of yes answers as follows:

No	Classroom Observation Checklists Yes or No	Yes	No
1	The class is attractive to see and clean		
2	The number of students are not more than 50		
3	No unwanted sound disturbing the class		
4	The class has some visual aids posted on the walls (pictures, figures, photographs, charts).		
5	The students have their textbook in hand		
6	The teacher has his lesson plan in hand		
7	The objectives in lesson plan are SMART		
8	The teacher began lesson presentation with questioning the students		
9	The teacher uses different teaching methods while teaching		
10	There is more student work than teacher talk		
11	The teacher has given group work		
12	The teachers use rewards and rein forcers to motivate students who are performing very well.		
13	The teacher considers time, space/class size, facility and resources before choosing teaching methods		
14	The teacher seems happy in his teaching profession		
15	The teacher is specialized the subject matter he is teaching		
16	There is a strong classroom interaction between teacher and student		

17	Students are satisfied the method of teaching their teacher dominantly uses		
18	Different measures are taken by the teacher to effectively teach for different student learning styles		
19	The teacher has taught according to his plan		
20	The teacher seems happy in his teaching profession		
	Total number of 'yes' answers:_____		

**Many thanks for your cooperation!**