AN ASSESSMENT OF THE PRACTICES AND CHALLENGES OF MODULAR MASTER'S PROGRAM OF ADDIS ABABA UNIVERSITY

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This is to certify that the thesis presented by Gizat Mekonnen, entitled: *An assessment of the practices and challenges of modular master's program of Addis Ababa University* and submitted in partial fulfillment of the requirements for the degree of Degree of Master of Arts (Educational Research and Development) complies with the regulations of the university and meets the accepted standard with respect to originality and quality.

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Gizat Mekonnen Tedla

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ACRONYMS

AAU	Addis Ababa University
BPR	Business process reengineering
ECTS	European credit transfer and accumulation System
HESC	Higher education Strategic center
INs	Instructors'
MI	Modular Instruction
MoE	Ministry of Education
PGDT	post graduate diploma in teaching
SGS	School of graduate Studies
STs	Students'

ABSTRACT

This study, aims at assessing the current practices and challenges of modular MA program of Addis Ababa University, collage of education and behavioral studies. The study employed survey method and was also supported by both quantitative and qualitative data collection procedures. Accordingly, 53 final year master's program students and 25 academic staff members who teach at the master's level participated in the study. The findings revealed that the purpose of modularization in the master's program was not clear for the majorly of respondents. The study also showed that resource facilities (e.g. libraries, course materials) not always up to standard. The study also noted that attitude of respondents' towards the practice of modular curriculum mode of delivery were found positive for the majority, however, the study showed that the practice of module delivery was not in line with the guide line. Besides this, the study indicated, problems over curriculum revisions, and, course revisions, as well as *research work, which seems not obligatory, was questioned, course not covered in time, assessment strategy found poor, the concept and development of ECTS generally poor and the duration of master's program found short for the majority. The study concludes that, the existing modular master's program faced reluctance and lack commitment on the part of instructors and lack competence to grasp modular curriculum and its mode of delivery on the part of students*

CHAPTER ONE

1. THE PROBLEM AND ITS APPROACH

This chapter deals with the background of the study, statement of the problem, basic research questions, the significance of the study, objectives of the study, its delimitations and limitations as well as definition of key terms and the organization of the study.

1.1 Background of the study

Education is the process of identification and promotion of individual potential or the progress and betterment of society. It teaches people how to live on earth, fly in the sky and dive into the depth of the sea. It is the only powerful machine for eliminating the forces of ignorance, barbarity and oppression. It is a key for the solution of the problems faced to humanity. It provides passage to more promising future, by providing the skilled manpower needed for economic prosperity and modernization. It not only preserves the culture of the past but also transmits it to the coming generation with its own contributions. It is a key for hope and progress. The investment in the education sector is an investment in the development of society.

Education distinguishes humans from other species. It is the quintessence, the manifestation and the embodiment of humanity. Fulfillment of the physical needs is only one aspect of human existence, fulfillment of the cognitive, emotional and spiritual needs is the second and perhaps a more important aspect of our existence.

Education contributes to the fulfillment of both the needs. Since time immemorial, great thinkers and leaders have emphasized the need and importance of education.

Every society and every civilization put a premium on education. In fact, the material progress we witness through the ages has been due to

advancement in knowledge and education. Those civilizations that realized it and continued to advance in the educational fields were also the leaders of the world (Ahmed, 2000).All this documented benefits of education can be realized when the education is of good quality.

Quality of education cannot be enhanced in isolation. It has to be a coordinated effort starting from the elementary level and moving on to the tertiary level. Education has to be seen as a continuum rather than compartmentalizing it in various segments or levels. Moreover, quality of education depends on the curricula as much as on the teachers who deliver the curricula in the classroom (Ahmed, 2000)

A primary criterion in determining the quality of professional and academic status of teachers is that its members should have acquired a sound background of general education, subject matter specialization and effective preparation in the methods and techniques of teaching. The academic status of teachers refers to the prestige that teachers enjoy by virtue of education they have received in schools and colleges, their professional competence, their personal commitment to and care for the pupils/students. Other things being equal, the higher the level of education a teacher has received, the higher his/her academic status (Sharma, 1999).

The technology of education involves both traditional and contemporary resource-books and chalkboards, pencils and paper, slides and tapes, film and television. However, it involves much more than just the 'hardware' and 'software'-the audio-visual equipment and materials needed to use with it. It includes decisions about the educational ends to be achieved and decisions about the size of the learning groups, the learning sequence and the choice of media

The teacher is a fulcrum of the education system who implements the education reforms and policies. In fact, the quality of education depends upon the quality of teacher education. No system of education

can rise above the system of teacher education. It is an acknowledged fact that, the academic qualification of teachers, knowledge of subject matter, commitment to the job, competence in the skills of teaching has a great impact on the teaching learning process

According to Joyce (1971), knowledge explosion and war conditions demanded a very complex and complicated role from the individuals. The teacher has to prepare people having different traits and decisions taking abilities for performing their responsibilities in a rapidly changing society. To fulfill these conditions and the needs of changing society, the psychologists have developed some training systems that have maximum level of competence and zero percentage of failure. These models focus on different aspects for preparing the teachers to operate successfully in the classroom. The major emphasis is on equipping the teachers with some techniques and methods of teaching for effective teaching in the classroom.

Teaching is used for imparting knowledge, understanding and skills. It is not merely telling and listening but creating a conducive environment for learning through providing variety of learning experiences. It is a relationship that is established among the students, teachers and the subject matter. Einstein defines teaching, “as an art of awakening joy in creative expression and knowledge. To Joyce,(1971) it is a “process through which teacher and students create shared environment in a set of values and beliefs which in turn color their view of reality”. To Crowell,(1997) “teaching is more art than science and technology, and the main function of the teacher is to make creative decision” To Green,(1989) “the basic task of the teacher is development of a child”; Morrison says, “it is an intimate contact between more mature personality and less mature one, which is designed to further the education of latter” (Rahman, 2005).

The emphasis of teaching in this era is on individualized instruction, because human beings are different from one another in many ways. It is not possible to teach everybody in the same way as is done in conventional classroom with the help of textbook. One of the most significant features of the present scientific movement in education is the recognition of the individual differences among children. The early Greek intellectuals identified individual differences in intelligence, temperament, interest, and physical traits. In the last two decades, classroom interaction has considerably changed with the application of educational technology and knowledge of individual differences. The teaching learning process is dominated with its emphasis on individualizing instruction (Chand, 1990,).Individualized instruction is aimed at respecting and the accommodation of the unique abilities, goals, learning pace and learning styles of each learner. It places the responsibility of learning on the learner, which results in improved motivation and interest in the learning process, and the development of self-concept about the personal world (Collette & Chiapetta, 1986). In our country tertiary education classrooms are overcrowded, so instructors cannot give individual guidance. To meet this problem, Biritu,T. *et.al* (2013). Proposed the need of a study material that accommodates the individual differences of the students and allow them to learn according to their own pace. In this respect, material designed as a module is an important learning source for caring the needs of individual students. It is one of the most commonly recognized learning resources in the advanced as well as in the developing countries of the world. It is used almost in all subjects, especially in social science teaching. All kinds of subjects are being taught through the modules. Modules not only help in instructions but also develop the self-study habits due to its focus on individualized study and satisfy the individual needs of the students.

Today a nation with superior educational system is superior and dominant. It is recommended that a modular approach has been adopted for the sub sectors and programs supporting the sectorial reform to create space for innovation in teaching, assessment and implementation different and effective teaching and learning techniques.

The move towards modular approach to curriculum implementation has got a long history, though the literature that supports it is scant when compared to other bodies of knowledge .This days, the approach has drawn a special attention all over the world in education system from technical and vocational education and to higher education.

Biritu,T. *et.al* (2013), suggested that there has been an increasing focus on modular approach of learning in higher education institutions. Modularization is an emerging trend educational thinking that shifts traditional method of instruction to an outcome based learning paradigm. Modularization is an emerging trend educational thinking that shifts traditional method of instruction to an outcome based learning paradigm..

Ethiopia is in the process of rapid change in all spheres of economic development, such as new industries are springing, new occupations emerged, and specialization and profession are constantly arising.

The learning process should take advantage and align with work based competencies through modularization of the curricula. In addition, modularization of curricula enables to maximum student learning and performance.

Higher education institutions in Ethiopia have embarked on a major reform since last decade. From the reform to take effect, the institutions

have used BPR as a too). In the reengineering of the learning –teaching core process, modularization was proposed as a best way of the implementation of curricula and the production of competent global graduates (Biritu,A. *et.al*, 2013).

It is after the implementation of the wider new business reengineering process(BPR),that Addis Ababa university has introduced a fundamental change in the teaching and learning process of its Master's program since 2009/2010.

The reform demanded all academic departments and/or academic programs running the master's program to modularize and deliver their curriculum through block teaching mode. The BPR document stipulates that the module shall be divided into three general parts. The interactive teaching and learning, self-learning by the students and collaborative learning among students. The interactive teaching and learning is given 40 percent of the time (6 days of block teaching 3 to 4 hours a day)

During the interactive teaching and learning process the instructor is expected to meet the student and perform the following duties.

Introduce the module ,its objectives, anticipate outcomes, approaches of the course, instructor and students responsibility, available resources and the like a) introduce the major topic, identify the major issues, highlight the major findings, arguments or theories and discuss the current state of knowledge on the subject matter. b) Encourage and provoke student involvement and curiosity through both structured and unstructured discussion).Provide students with topics and guide lines for self-learning along with assignments and activities (such as book review, field work, case studies and project work) and any other appropriate task that can help the students to meet their learning goals

(Addis Ababa university, 2009b) The independent learning (self-learning is given another 40 percent of the time. In the part students are expected to learn independently based on the materials, guidelines and assignments that they had be given. They are also expected to complete their assignments and tasks, submit their work and/or make presentation on their works in the class room. At this stage the instructor is expected to: a) Assess the sub-mission of each student, identify where students have difficulties and provide feedback and b) Provide topics and problems and organize students in collaborative groups for the next set of activities

The third part, collaborative learning consists of 20 percent of the time (3 days of block session 3-4 hours/day). In this part expectation are that: a)Students meet the instructors in small groups to undertake group discussion based on the topics of the course assignments, dialogues /debates, paper presentations or book reviews following a purposeful guideline provided)The Instructor poses relevant questions and problems for discussion to help students understand what they have learned)The instructor facilitates and moderates the discussion in ways that would clarify difficult concepts and lead towards the learning goals. d) At the end of delivery of all courses in a module, students meet their advisor and discuss the relevance and contribution of the modules to their learning goals(Addis Ababa university,2009$_a$)

Grounded on the above context, a procedure manual "Modularization and Block teaching has been prepared and disseminated to all collages/schools/institutes in the university (Addis Ababa University, 2009c)

Based on the above premises, all academic departments and programs running the master's program were instructed to revise their curricula

and change them to modular program to be delivered via block teaching.

The main driving force behind the introduction of module in teaching learning process lies in the fact that, they have rules that can help to solve key educational problems. This is largely because they satisfy the basic condition for promoting effective learning and are extremely flexible in implementation (Goldschmid, 1973)

The use of such packages takes in to individual differences and permit students to work at own pace. That is why Lougharn and Berry (2000) pointed out that individuals learn at their own pace, because 'telling is not teaching and listening is not learning", but is a process of first absorbing and then expression of concepts. So it is best achieved by self-learning.

1.2 Statement of the problem

Creager and Murray (1971) point out that, conceptual framework of present qualitative and quantitative research, aimed at developing and proving modules for specific use in classrooms, draws strength from the ideas of psychologists, educationists and neuro–scientists who brought a revolution in the cognitive theory starting around 1960. The emphasis has been on learning how knowledge is constructed in student's brain, how it should be transmitted and, how it should be evaluated by the teacher. There is a whole array of approaches including modular approach, and that of linked teaching strategies, perfected by lead educationists and adopted by education systems worldwide.

Brown and Lewis (1997) conducted study on the importance of module and Pointed out that that for successful modular instruction, the modules must meet the conditions necessary for effective learning. They have fundamental characteristics in their design include self-

pacing, immediate confirmation of the right or the wrong answer, active participation of learner, teacher as a facilitator of learning process, economical to prepare, flexible to be administered, easily updated, careful sequencing of learning material, objectives given in behavioral form, flexibility for the learner, and can be administered to individual or group of students. It has been used successfully throughout the world since five decade content

The principles and purposes of modular instruction, has advantages for both students and instructors. Present evidence suggests that modular instruction, meets the needs of today's students more adequately than traditional instruction both with respect to the quality of learning and the content.

Besides the above advantage, however, a modular approach has its negative side, the block teaching might be stressful (Grant, 2001) and some instructors might find it is hard to maintain energy, intensive teaching formats require carful organization, adequate preparation and varied teaching approaches for which the instructors may lack the skill as well as the good will.

Instructors tend to prefer to teach in the traditional time frames because the teaching time is intense (Solomon *et.al,* 2011). There is little time during intensive schedule to organize and confirm activities.

There is little opportunity to adjust material or respond to the student feedback and that the instructor cannot deal without side issues during the intensive schedule (Grant, 2001)

Whether or not modules are used alone or as a part of more comprehensive program, they must be continually cheeked and monitored to ensure continuing educational effectiveness.

Modules are designed for a particular program is the product of a highly controlled situation. This situation may change due to changing policies, new administrative constraints or other factors are therefore, need continuous review to ensure maximum effectiveness of the program.

As briefly shown in the above paragraphs, modular approach has advantages and disadvantages. Successful implementation of the program requires commitment for all involved.

In the other way round, Solomon *et al. (*2011) research report on academic staff's views and practices of modular course delivery at graduate program of Addis Ababa University indicated the gaps and misconceptions that, many members of the academic staff tend to equate the modular program to block teaching. Moreover the finding indicated that, the implementation of most radical components of the program like interactive teaching-learning, independent and collaborative learning and the major paradigm shift in educational philosophy of teacher's role as a facilitator of learning experience was a major challenge of the program. It has been revealed that, many instructors still consider themselves as the only source of wisdom and tend to pour knowledge to student's mind and cover everything by them.

Since modular approach is a radical departure from what had been practicing for decades in Addis Ababa University, the implementation process might contain prospects as well as misconceptions, challenges, and problems

This scenario of modular teaching process has inspired the researcher to assess the practices and challenges experienced while running the Modular Master's program of Addis Ababa University. Apart from the prevailing significance of Modular approach and its need for learners

also urges to examine the strengths and weaknesses of the existing modular master's program.

The study tries to answer the following basic questions

1. What are the major Challenges experienced while running modular master's programs of Addis, Ababa University?
2. What are the views of students' and instructors' towards the practice of modular curricula and block teaching mode of delivery
3. What are the major strengths and weaknesses of the existing modular master's program of Addis Ababa University?

1.3 Objectives of the study

1.3.1 Major objective of the study

The major objective of the study is to assess the current practices and challenges of Modular master's program of Addis Ababa University, college of education and Behavioral studies

1.3.2 Specific Objectives of the study

Specific objectives of the study are:-

1. To explore the major challenges and constraints experienced while running master's Program of Addis, Ababa University
2. To highlight the weaknesses and strengths of modular master's program in Addis Ababa University.
3. To examine the attitude of students and instructors towards the practice modular curricula and block teaching mode of delivery
4. To explore the contributions modular instruction to produce an innovative and efficient graduates.
5. To give suggestions and workable recommendations necessary for the improvement of the program in the future.

1.4 Significance of the study

The results of this study will be of interest to all higher education institutions implementing or intended to implement modular master's program, and to supervisors of postgraduate students, authorities who are responsible to recommend the curriculum of education programs as well as to students themselves. This study will help to increase educational opportunities, improve earning and deepen the knowledge and understanding of learning, in the collage of education.

Another justification of the study is as follows:-

1. The study will help administrator's, department heads, instructors and students to address the current practices and challenges of modular course delivery
2. The study will also provide a conceptual frame work for those who want to carry out their research on the effectiveness of modular instruction.
3. It will help also modular course developers to address the issue of designing and formulating the books on the modular pattern to the extent that, the module based learning resource, the objectives are written in behavioral form the content and learning experience

1.5 Delimitation of the study

The scope of the study will be confined to College of education and behavioral studies of Addis Ababa University. The finding will assess the current practices and challenges of modular Master's programs.

1.6 Limitation of the study

This study has a number of its own limitations. Due to the fact that modular instruction is a newly introduced tool in teaching learning of the country and the minimal effort made to adopt the tool to higher

education sector, knowledge of its principles and even the related activities taking place in implementing modular course delivery is limited. The shortage of adequate reference materials and previously done studies; poor cooperation from concerned instructors in some departments; unwillingness to fill and return questionnaires on time were the major limitations of this study. In spite of the above challenges, however, the researcher exerts maximum effort to overcome these limitations so that, the result and outcome of the study was as complete as it was initially anticipated

1.7. Definition of Key Terms

Credit Accumulation - The process of collecting credits awarded for achieving the learning outcome educational components or other learning activities.

Allocation of Credit- The process of assigning a number of credits to qualifications or programs or to other educational components.

Assessment-The total range of methods (written, oral and practical tests/examinations, projects and portfolios) used to evaluate learners' achievement of expected learning outcomes.

Award of Credit The act of delivering learners the number of credits that are assigned to the component or a qualification. The award of credit recognizes that learners' learning outcomes have been assessed and that the learner satisfies the requirements for the educational component or the qualification.

Block teaching-an intensification of a teaching–learning process by engaging the learner in a full work load

Credit (ECTS)-Quantified means of expressing the volume of learning based on the workload students need in order to achieve the expected outcomes of a learning process at a specified level..

Learning Outcomes- Statements of what a learner is expected to know, understand and be able to do after successful completion of a process of learning

Quality Assurance The process or set of processes adopted nationally and institutionally to ensure the quality of educational programs and qualifications awarded.

Transfer The process of having credits awarded in one context recognized in another context for purposes of obtaining a qualification

Workload Indication of the time students typically need to complete all learning activities (such as lectures, seminars, projects, practical work, self-study and examinations) required to achieve the expected learning outcomes

1.8 Organization of the study

The study consists of five chapters. Chapter one deals with introducing the problem, whereby, back ground and statement of the problem; objectives, basic questions and significance; delimitations and limitations of the study; definition of key terms; and organization of the study are included. Chapter two is committed to the review of the related literature so as to lay the theoretical foundations of the study. Chapter three is concerned with the research design and methodology under which the method, data sources, sampling techniques and the type of instruments used are discussed in detail. Chapter four treats the analysis and interpretation of the data gathered. Chapter five presents the summary of major findings, conclusions drawn upon the findings, and possible recommendations. Finally are attached lists of reference materials used in the study, questionnaires and interview guides.

CHAPTER TWO

2. REVIEW OF LITRATURE

Survey of related literature provides valuable help in the development of knowledge in research work. It helps the investigator to gain insight into various aspects of the problem area that is in formulating a framework for the study, developing the methodology, constructing the tool for data collection and planning the analysis of data. Since the problem under investigation is "An assessment of the current practices and challenges of Modular Master's program of Addis Ababa University " the investigator tried to collect studies related to module and modular instruction. After going through the profuse literature, the researcher has selected only those that are relevant for the present study

2.1 Module and Modularization

2.1.1 The concept of Module

2.1.1.1 Definitions

In literature the definition of module has encountered considerable diversity in the meanings of relevant terms as found in various scholastic sources. Some of these are discussed below.

Oxford dictionary, Jonathan.C. (1996) defines as module is stated as a unit or period of training or education.

Farooq (1997) described that, modules are not just "job sheets" or old-style work units or chapter of books with questions added. They are based on careful application of learning principles of instructional design and have clear set of designed characteristics. If properly produced, they can make significant contribution to education.

According to Pareek and Rao (1981), "A module is a set of learning opportunities organized around a well-defined topic which contains the activities and evaluation using criterion referenced measures.

Goldschmid, B. & Goldschmid (1973) define module "as a self-contained, independent unit of a planned series of learning activities designed to help the student to accomplish certain well-defined objectives"

Kulkarni (1986) says, "The term module is derived from Modus in Greek language which refers to a mode of working with some instructional material. In the context of educational technology, a module indicates an instructional plan, which is usually larger than a class hour or a session but smaller than a course plan")

Similarly, Theodossin.(1981),defined a module as a measured part (or course) of an extended learning experience leading to the attainment of a specified qualifications for which a designated number of modules are required ,with the group of required modules known as a program.

According to Biritu, T. *et.al.* (2011). a module from the above definitions can be conceptualized as:-

- A self-contained and independent learning units in a given study program that results in set of learning outcomes leading to the acquisition and development of certain professional competencies as described in the graduate profile
- A building block of a study program
- An independent unit of a program ,but there are interdependence among different modules
- A coherent whole of course requirements-learning objectives, teaching/learning situations and contents, assessments, etc.
- Meaningful unit within a program of study where these contribution of meaningful units result in program of study

Biritu,T *et.al* (2013).indicated that, the current concept of module deviates from the recent definition of modules in that in some Ethiopian universities, a module is considered as a teaching material as well as a collection of courses. Due to this the courses organized in modules

have no impact on the delivery and engagement of students learning through the courses are organized in the form of modules are still in the form of discreet courses. Hence, it should be noted that the new conception of a module is different from the above conception in that the courses should be delivered according to the sequence in the module to enhance students' competence by maintaining the principle of hierarchy of knowledge or natural flow of knowledge and unity of ideas.

2.1.2 The components of Module

Ali, A. (2005) described that, most of modules are designed on a similar principles and havening the following components

i. Instruction on how to use the module

The structure of the module needs to be explained, especially if it consists of units. The procedure for working through the module needs to describe and any color coding explained. Sometimes it is useful to have standard symbols to represent sections such as objectives, input, practice task, feedback and so on. If such symbols are used, they need to be defined and explained .What the learner is expected to do during all phases of study should be emphasized.

ii. Purpose and Aims

By purpose it meant for whom the module is intended and where it fits in to a program. It is useful too, a curriculum or a syllabus gird, which practically locate the module in the overall course. Aims are broad statement about the type of anticipated learning outcome such as to develop understanding or to enhance appreciation in some area of knowledge or skill. These statements are important since they clarify for the user and the general areas covered by the module.

iii. List of pre-requisite skills.

If prior knowledge or skill is needed for achieving the objective of a module ,these needs to be defined ,if for example ,the module is about

quantitative research methods, it may be necessary for students to know something about basic statistics and have some skill involving elementary statistical problems. If so these items should be listed so as to allow for advance preparation for the work of the module itself.

iv. List of instructional objectives

This is a critical part of the module. Instructional objectives have to be expressed in behavioral terms that are terms of performance, which can be observed or measured. The objective of the module as a whole should be listed at the beginning and any units within the module should start with list of their own specific objectives.

v. Diagnostic pre-test

Sometimes it is not sufficient to merely list pre-requisite skills and may be necessary to include a test specifically designed to cheek whether students have the necessary background to understand the module. If they fail in this test, they should be advised on how to catch up by means of reading, solving problems or completing specified practical task.

vi. Equipment with other resources

If the module is to be used with audio-visual materials, workshop equipment's and so on. All necessary items must be listed. If answers to questions practical task or other forms output are to be made on a separate sheets

vii. Sequenced Instructional activities

These of course, form "core" of the module and set out the input-processing-output or input-practical task-feedback sequence for each activity in turn. All in text problems, self-assessment and feedback quizzes should be included as part of this sequence.

viii. Mastery-post test

The posttest should have items corresponding one-to-one with the specific objectives of the module. During trailing phase the posttest or

parallel forms of the test should also include at the beginning of that module so that the modules effectiveness in achieving educational improvement or gain can be measured. During trailing students answer the questions both before and after completing the module and the difference between their scores gives a measure of gain. Once the module is published in final form, however the "post-test" can be removed from the beginning of the module and be used only to check on final mastery of the objectives

XI Feedback/reinforcement

As the module is self-instructional package it lacks face-to-face interaction between the teacher and the taught. The teacher's role is considered to be in-built in the module. As the final stage when the learner has attempted the mastery post-test there is a stage to make the feedback and reinforcement available. For that purpose the responses to the test-items are clearly justified to be right or wrong with some rational So that, the students may avoid any confusion and are properly enriched reinforcement with necessary feedback process for the process for the purpose of reinforcement and feedback.

2.1.3 Fundamental Characteristics of Module

The modules meet the conditions necessary for effective learning. This occurs because modules have certain fundamental design characteristics, which have emerged through application of ideas from the theory of learning. These points are discussed in more detail below

i. Essentially self-Contained

Most modules contain within themselves all the material needed to achieve the objectives of the module. Frequently the term "Package" is used in connection with self-instructional material such as modules

and this reflects the idea of a "closed" self-contained unit. It also refers in a way to the format. Modules are usually produced in a standardized series. They can be transported and reproduced in a way that would be impossible in the conventional approach. (Toreston and postlethwaite, 1994).

ii. Self-Instructional

The student using modules is given the opportunity to conduct self-paced study with in-built "instant-replay". Furthermore modular packages can be sequenced in a variety of patterns to build unique courses of study catering for students with different interests and needs. A basic assumption made in the development of any self-paced learning package is that learning is a process which must be undertake by the learner. Responsibility for learning shifts from the teacher to the students. (Gagne and Briggs,1992).

iii. Concern for Individual Differences

In a typical class there are many differences between learners. It is usually impossible for a teacher to meet all the needs of each individual student at the same time so he/she must follow a course, which will present the best options for the greatest number. Self-instructional modules allow the rate of learning to be adjusted to suit the needs of each individual student. The slow learner is able to repeat any part of the package, which was found difficult. Fast learners can move more quickly provided they can demonstrate achievement and this free them from keeping to the average pace of a group (Greene and Hacks, 1989).

iv. Statement of Objectives

Students learn more efficiently when they have a clear directive about what Is it they should learn clearly stated objectives have a key role

for those who write modules, for the teacher who uses them and for the students studying them well stated objectives gives the module writer criteria for the selection of subject matter, learning activities and test items. He/ She know exactly what the learners is expected to achieve and so can design all aspects of the module to meet each objective. The teacher gains insight into the suitability of the module for his/her students and can closely monitor progress towards the achievement of the objectives. For the students, objectives exact by describe what is expected and provide goals to be mastered. Each student's learning activities becomes goal-oriented. Modular packages therefore, take full advantage of the benefits of a clear statement of objectives.

v. Optimal Association, Sequence and Structure of Knowledge

The more closely associated in time and space are the elements to be learnt, the more effective will be the total learning. Modules not only bring together elements such as practical experiences, theoretical material and information from different media but they ensure that subject matter is brought into close association with all relevant and related concepts.

An important characteristic of modules is the way in which knowledge is structured. As in programmed instruction the learning hierarchies are presented in small steps. In contrast to formal size as they must be in the "frames" of a formal programm. In modules students can, at least to a degree, determine the size of each learning step simply by altering the degree of interaction with the material, or by omitting familiar work while concentrating on less familiar areas.

vi. Utilization of Variety of Media and Methods

It is well established that students differ in their responsiveness to different media of instruction. Some learn best through reading; others learn more from still pictures and films; and still other must hear in order to learn. Some students need to touch the objects to be studies. All students learn too from one another and from dialogue with friends, colleagues and teachers. In modules utilizing a variety of media can cater for all these aspects. Students can study the material in a variety of ways and individuals can find learning sequences involving the media that work best for them (Ronald, 1979).

vii. Information provided on Progress

An important characteristic of modules is that, they provide continuous feedback to students on their performance and especially on their progress towards achieving objectives. They do this by building in at frequent intervals in-text questions, checklists and quizzes and by immediately providing answers to these so that students can themselves; check up on their levels of knowledge, understanding and skill. (Farooq *et.al* 1984).

viii. Immediate Reinforcement of Responses

Closely related to the previous point is the question of reinforcement. By reinforcement in this context is meant consolidation of learning through reward for success. Self-instructional modules, like programmed learning, use reinforcement of correct responses to shape behavior. They do so, however, without using the standard sized small steps or “frames” of the traditional formal program. Students are more in control of the size of each learning step. What modules have in common with programmed learning, however, is that students can see

immediately if they are right or wrong. If they have been conscientious in studying the material they are usually correct. The satisfaction gained from success provides rewards, which are the basis of reinforcement. As in the case of feedback, reinforcement is the most effective if it is immediate and module provides this immediacy (Shipley *et a*l, 1989).

ix. Active Participation by the Learner

Modules characteristically encourage students to actively participate in the lesson. Since students are usually in control of the lesson, they decide when to move ahead, when to study a particular specimen, when to answer questions, and whether or not to repeat a section, which has not been well, understand. Modules also encourage maximum participation by their very design.

x. Mastery Evaluation Strategy

The most effective modules utilize a system of student assessment, which requires mastery of the objectives. By mastery is meant, achievement of a pre-set standard as judged by a prescribed criterion or level of performance. It is assumed that students will "master" one module before proceeding to the next in a sequence. This system ensures that students will succeed and it minimizes failure. It helps to ensure that all the key material has been understood or that necessary skills have been attained before students move on to new work. (Farooq,1997).

2.1.4 Role of Modules in Education

Following list indicates some of potential role of modules in education:-

i. Develop Learning autonomy

The module encourages autonomy in learning and the use of modules places the user in far greater control of his/her own learning. There is a major shift of focus from the teacher to the student. The climate becomes more learner-centered. This is an important step towards independence and prides the individual work of the student (Romiszowski 1984).

ii. Ensure Satisfactory Minimum Standard

Modules can help system, maintain satisfactory minimum standard since they "package" materials in a standardized form that is the same for all. Because modules are largely self-instructional, they can be distributed from a central point to all learners who immediately perceive the basic objectives to be attained and work independently towards achieving these objectives (Farooq *et .al.*1984).

iii. Provide Remedial Units

Because modules can be used very flexible they can provide not only basic elements of a programme but also materials for enrichment or extra learning and also units for remedial training. The latter role is especially important in cases where students may enter a course with uneven standard of preparation rather than delaying a whole class for the sake of a few students, remedial modules can be used to allow the individual concerned to close gapes in basic knowledge on skills (Davies, 1981).

iv. Enhance competencies of Teachers

Valletutti and Salpino (1985), say that the modules have an important role in staff development at least in two respects. Firstly, they provide teachers with well-designed carefully structured lesson materials and

so serve as examples of effective instructional design. Secondly, they can be specifically written for the teachers. With regard to the latter aspect, package can be produced on such aspects as instructional planning teaching-learning methods, student evaluation and so on. Such packages can be developed as part of staff development program.

v. Integrate Theory and Practice

Because modules are largely self-instructional and the learner proceeds in small steps it is possible to proceeds each step in practical work by appropriate theoretical explanation. It is also possible to consolidate theory and practice by relating each element to the other work persuasively and coherently than in conventional teaching.

vi. Accommodate for Different Groups within One Course

Different groups of students may require different treatment in teaching-learning process. It is difficult to satisfy for the needs of different sub groups in a conventional classroom but self-instructional packages (modules) can easily solve this problem by providing a compulsory core and a series of optional or alternative strands within the same course.

vii. Cater for Individual Differences in learning

Because the modules are self-paced, they do provide to an extent for individual differences in the learner abilities, interests and degrees of application. A basic core of essential modules can be provided for all optional extra enrichment units can be available to keen students, remedial modules can be used by those needing some essential prior knowledge or skill and alternative units can be provided for students who may have difficulty with the main stream approach.

viii. Consolidate Critical Points in a Course

Most courses have pints or topics of special importance on difficulty, which need to be mastered for the understanding of the programme as a whole. While it may not be possible to fully modularize all parts of a particular course specific modules can be readily produced for certain critical or traditionally difficult areas for ensuring complete mastery of these topics. In this way failure or dropout rates are minimized and a firm basis for future learning is assured.

ix. Provide Resources for distance Education

Modules are ideas for distance teaching since they are readily transportable. They can be tailored to the requirements of a wide range of subject areas by building in films, tapes and other non-print media. Modules are useful not only for the distance education of trainees but also for staff development at a distance. Sets of modules can be used by teaching staff or widely separated institutions to ensure attainment of necessary teaching competencies (Ghafooret *et. al.*1987).

x. Encourage Mastery

Allen and Sickle (1984), point out that conventional courses are usually graded normatively e.g. by comparing the work of each student with that of others. Some time students "pass" a course with grades as low's 50 percent implying that they have not mastered at least 50 of the content. By contrast, modules have a built-in-fail-safe mechanism that encourages students to master the whole of the material and so achievement tests are set with this aim in mind. This avoids the hit-and-miss approach of the conventional course and ensures that future work is based on a sound understanding of all previous learning.

xi. Encourage a changed Role for the Teacher

In conventional teaching most of the teaching comes from "front". The listens to lecture follow instructions given by teacher. This encourages "a teacher-centered" climate. In modular instruction most of the "information" is given in module. The teacher no longer had to be the source of all knowledge and student does not depend on the teacher for all information. There is a "learner-centered" climate. The teacher can therefore change role from information given to facilitator of learning. He/She can pay attention to the needs of individual students as required and act as a counselor and guide.

According to Biran (1974) module is a kind of programmed instruction and we would well include this system with one class as products of the same general programming process and in the words of Markle (1970) it is capable of producing a variety of products within small groups as well as in large groups. Individualized learning mean that, the learning needs of each student in a class are individually diagnosed and appropriate subject matter and learning techniques are separately prescribed. Some of the learning may be in large groups, some in small groups and some by a student working alone. In individual programs students usually work towards the achievement of personally prescribed specific objectives and must be tested to check on the achievement of these objective.

Self-paces learning on the other hand is a specific type of learning technique, which may or may not be a part of an individualized learning prescription. Self-pacing means that students are in control of their rate of progress through the material. If they are familiar with the ideas they can skip sections or move quickly through suggested

activities. If they are uncertain they spend more time on reading practicing skills or reworking though difficult areas (Sharma, 1999).

2.1.5 Essential features of Module

According to pareek and Rao (1981), the module should have the following essential features and may be kept in mind while preparing the module.

i. It should provide opportunity for the learners to assess their own progress and understanding at regular intervals.

ii. It should give him or her opportunity to apply his learning after each unit or a set of units learning.

iii. It should be self-motivating

iv. It should suggest basic material for a learner who finds it difficult to follow and reference or further reading materials for a learner who is interested in attaining higher level of master.

v. It should suggest or contain whenever possible supplementary materials including recorded lectures, cassettes and films etc.

vi. It should be self-contained and structured in such a way that the learner will be able to learn or achieve the objectives independently or with minimal assistance of teacher, without the necessity of using extraneous materials. The presentation of lessons, the directions, the guidelines, the tests and the assignments, if pretests, the formative tests, the post-test and the answer keys should be made available to the learner for use at his/her convenience.

vii. The subject matter should be concise and well defined. The contents of a module should be as brief and to the point as possible, strictly focused on attaining the objectives of module. It

should not be vague or over-long as this will only confuse the learner and prevent him/her from realizing the objectives.

viii. It should motivate the learner. Objectives, which are clearly defined, and activities, which are well designed to achieve them, have motivation enough for most of students. However, special effort should make by module writer to ensure that the module have some sort of psychological or pedagogical motivation expressed or implied. The module should be like a real life-learning situation where the teacher gives the class an appropriate motivation for every activity.

ix. It should provide the opportunities for interaction with the learner. The module should be written in such a manner as to build a rapport with the learner who continuously react to it. To create such an atmosphere the module should be made to "talk to the learner" in a personalized manner. Most sentences, especially the guidelines, the directions and the clarification, should be addressed to the learner. Enrichment activities in the form of worksheets or study sheet assignments are a fruitful source for interaction. The learning activities should be challenging to the students intellect, imagination and creative ability.

x. It objectives and activities should be properly sequenced. Sequencing means following a pattern of activities or experiences so as to provide the learner with cumulative understanding and skills. Properly sequenced learning patterns are necessary because they inculcate the knowledge and skills, which are prerequisites for a specific learning task. As in the practice of a good teacher, the sequential order of the module should be exemplary to ensure an effective learning process.

xi. It should be written in a clear, correct language suitable to the level of the target learner. This feature is self-explanatory.

xii. It should be accurate. The content should be accurate and there should be no chance allowed for misinformation. This feature calls for the cooperation of subject matter content specialists. When it is necessary for a teacher to write modules on a subject outside of his sphere of specialization, the help of subject specialist should be solicited. The accuracy of facts and figures is essential in a module, which may be a good source of cognitive knowledge.

xiii. It should be so written as to make it interesting and appealing to the learner. All means available to make the learning situation interesting and appealing to the target learner should be used. The users of a module should be able to find the learning situations to a certain degree and certainly never boring.

xiv. It should be oriented to the real world. The learning activities suggested for a module should involve the real life situation. The module should also provide suggestions to learner for designing their own projects and for undertaking exploratory activities with a view to blending theory and practice.

xv. It should take every opportunity to educate in the most general sense. A good module aims not only for cognitive and psychomotor results, but also for affective learning, to make for a fuller, richer and more refined quality of life, to develop the individual's attitudes appreciations and values With question added. They are based on a careful application of learning principles of instructional design and have a clear set of design characteristics.(Farooq, 1997)

2.1.6 Comparison between Conventional and Modular Instruction.

According to Postlethwait and Russel (1991), the difference between modular instruction and conventional teaching is explained with the help of the following points. The significant difference between the two methods is no kind of emphasis and degree that play an important role in the teaching learning process.

i. In modular instruction the assessment criterion is mostly judged objectively by the instructor but in conventional instruction the assessment criterion is judged subjectively by the instructor.
ii. Regrinding learning experience, many different instructional activities are used to optimize learning in modular instruction but mostly lectures and written assignments in conventional teaching.
iii. With regard to mastery of learning it is expected that enough time is given to all students and expected to achieve mastery of objectives but it is expected that only a few students will do very well and some will fail in conventional instruction.
iv. In modular instruction objectives are stated interims of student behavior and presented before instruction beginning where as in conventional instruction objectives are usually not stated in precise observable terms.
v. Modular instruction encourages active participation of students but conventional instruction student participation is passive.
vi. Presentation of materials in modular instruction is highly individualized but in conventional instruction it is group oriented and predetermined time.

vii. The role of teacher in modular instruction is diagnostician, prescriber, motivator and resource person but in modular instruction the teacher is only a disseminator of information.

viii. In modular instruction criterion-referenced tests are used where success is independent of performance of fellow students but in modular instruction norm-referenced tests are used (gardening on the scale).

2.1.7 Difference between Modular Teaching and Lecture Method

One may point out that all the principles of modular teaching match with the Principles of lecture method. Lecture method also includes reading by the students, completing the homework, writing the papers, and taking the exam etc. These all activities require active participation of the students. Textbook always provides rationale for their content in an introductory chapter and lectures frequently supplement test objectives with their own statements of course objectives. Textbooks and "Readers" areaways divided into units and chapters, and typical Lecture covers a series of well-defined topics. The typical lecture course has at least a midterm, a final term exam, home assignments and papers. They all provide feedback to students. Finally, the students are permitted with in the limit imposed by the length of a course and examination dates to do the course work at their own pace. The question arises then what is the difference between this innovative modular teaching and lecture method. According to Postlethwait and Russell (1971), the difference is explained with the help of following points.

The significant difference between the two methods is not of kind but of emphasis and degree that play an important role in the teaching learning process.

i. In modular instruction the teacher is encouraged to analyze and articulate various aspects of teaching in specific, detailed, concrete, and behavioral terms. On the basis of this analysis, the teacher implements the plan of teaching for maximizing learning. But in lecture method the teacher comes to class and delivers the lecture and returns.

ii. In modular teaching they play a fully active role in their learning whereas in lecture method the students' role is by and large is passive.

iii. The complex task is divided into parts in modular teaching to bring it at the level of students whereas in traditional courses there are units explaining concepts according to the nature of subjects that is not easy for students.

iv. Modular instruction needs the vigorous implementation of the pretest posttest for measuring the effectiveness of modular teaching but no such pattern exists in lecture method.

v. The learning material given to students in modular course is simple, to the point and up to the standard of the students whereas in lecture course these principles are given consideration but not with the same degree of emphasis.

vi. In modular instruction the students are informed as clearly and precisely as possible what they have to learn and how the students demonstrate to what they have learnt. In the lecture method the students are told considerably less about learning situation and the teacher's expectations. They are assigned particular readings, expected to attend the lectures, and told that they will be tested on this material. In this respect lecture method ambiguity for the students.

vii. The most of the researches conducted about the comparative effectiveness of modular and lecture method pointed out that M.I

is more effective and preferred by the students. They are more involved, harder in, learn more from and have a decided preference for it.

viii. The modular instruction is highly structured as compared to lecture method. It provides sense of security to the learner. It discourage short cut and make the students able to go for in-depth learning (Cross, 1976, Ruskin, 1974)

2.2 The Concept of Modularization

2.2.1 Definitions

Modularization is a process by which courses are divided into separate elements-modules which are self –contained (graduate program policy, 2009)

Following are of possible conceptualization of modularizations which have almost similarity. Biritu,A. *et.al* (2013) described that modularization is:

- a process by which educational awards are broken up in to component parts of a more or less standard size (UK higher education Quarterly,2000)
- a process of organizing parts based on their competences or themes
- a process of bringing topics/subjects together based on their theme or competency in the realization of the graduate profile already specified.
- a matter of making things happens in their natural order. There for contents in a particular course or courses in a module should be put in their natural flow to avoid thought interruption.
- an attempt to avoid fragmentation among topics or courses in a module.

Therefore, a modular system in education has both a pedagogical and organizational (the curricula would be organized based on themes, competences, correlations, etc.)

2.3 An overview of modular curriculum and block teaching

UNESCO approved definition of a Modular Curriculum adopted by United Kingdom Archival Thesaurus (UKAT) is: "Organization of the curriculum or of instructional courses in self- contained units ('modules') designed for management by the learner"

In the process of curriculum development two important factors are given a considerable attention, the definition, the term curriculum and the ways by which educational objectives are determined.

Different scholars in the field of curriculum studies have given various meanings and /or definition of the term 'curriculum' based on their educational value system and orientation.

Knife, A. (2009) for example, defines curriculum as "an overall educational experience, the entire set of activities are scheduled to ensure achievement of goals and aspirations of the system of education". In this respect, the above definition reflects that, curriculum represents all of the activities engaged in by the principals, teachers, supervisors, pupil, parents and others, that are in any way affected by the study in and through the school. This means that curriculum goes both in and outside the school.

Modular curriculum, as the names indicate is a curriculum that is modular. Hence, the idea of modular curriculum cannot be viewed and understood dislocated from the wider and inclusive concept and meaning of curriculum. Similarly, block cannot be defined and conceptualized out of the wider meaning and conception of teaching and/or instructional process. Block teaching is a teaching that is blocked. The relationship between modular curriculum and block teaching is analogous to the relationship that exists between curriculum and instruction (Solomon et *al. 2011*)

That is, instruction is a means by which the curriculum is changed into practice. Instruction is the techniques that teachers use to make the curriculum available to the learners. In short, curriculum is program and instruction is method. Grounded on the above premises, it can be established that modular curriculum is a program whereas block teaching is a method. A method, in this context, is a means and/or mode of delivering a given program of education to students or learners. Modular curriculum as it is addressed by Solomon *et al.* (2011); it is a type of curriculum design which emerged as a result of dissatisfaction with the traditional designs. Modular curriculum design emerged in response to the changing needs of modern global society and a developing system of mass participation in higher education. While 'course' is the unit of learning in the traditional curriculum design, 'module' is a unit of learning in a modular curriculum design.

Block teaching could be considered if it is appropriate and effective method of delivery to achieve the outcomes of a given module but not as a rule.

The breakdown of delivery hours will vary from modules to modules, partly as a result of different amounts of learning expected of them and also because some subjects require a higher amount of formal contact between instructors and students than others. By and large students are expected to present coursework in the form of assignments, practical reports, and study portfolios and so on, as well as to sit for examinations. In this way, it can be established whether or not students have achieved the required learning outcomes for the module.

The same author indicated that, Modules come in variety of sizes, delivered either over the full academic year or semester or a term or in a block of four to six weeks. The rationale and purpose of modularization stretches far beyond methods of teaching and or scheduling the academic year and/or school days. It is about producing

educated and trained person, the contemporary society and the global market demand. On the other hand, the nature of the desired outcomes encoded for each module to be achieved, presumably, dictates the type of delivery method(s) to be employed. It is therefore under such context, nature and purpose of modules that block teaching competes for appropriateness.

Mass participation in higher education sector has brought a call for diversity and intensity of higher education curriculum. A modular system of higher education curriculum is largely a response to the very growing sectors of business, industry and consumers choice in general. It emphasizes more explicate outcomes in relation to each small part of the Degree, rather than the more broadly defined 'Course' in general. As opposed to most traditional curriculum designs, modular design gives greater student autonomy in constructing the programs and greater range of entry gates and exit points.

Modularity enables the design of the curriculum to meet students' needs, thus moving the curriculum from the supply side (what universities want to deliver) to the demand side (what students and their employers identify as what they want).

Once the modular curriculum is designed and modules are prepared the next logical step is to implement them by choosing the appropriate mode of delivery and/or method of teaching. As it is reflected by Solomon and *et.al*, 2011), a modular curriculum could be implemented using several competing ways of delivery and/or schedules. Semester-based scheduling, term- based scheduling, and block scheduling is among the possible modes or ways of scheduling or delivering the modular curriculum. Block teaching therefore is nothing other than one way or method of delivering the program of curriculum. Block teaching could be viewed and understood as the re-organization of the academic year into approximately 12 'blocks' of 4 weeks each or 10 'blocks' of 4 to

6 weeks each, instead of two semesters of 16 weeks each. There is no significant and necessary change in the content of the curriculum with block teaching.

There is also no loss of curriculum time during block teaching. Changes to the curriculum are kept to a minimum. That is, the nature of the curriculum in the semester or block schedules is largely kept the same. However, the work loads of students with block teaching change. Subjects are now taught in blocks of 4 weeks or 4 to 6 weeks instead of spreading them over the weeks or a semester over a 16-week or a semester. Students who used to take 5 to 6 courses per semester will now take at most 2 modular courses per block. This may not translate into a lighter workload but it gives the student an opportunity to focus on the 1 or 2 modular course at hand and give their best time to in the projects assigned. On the other hand, a move from course system to module system, and accordingly the allotment of credit to modules was one of the confusions observed in the process of reengineering graduate programs at Addis Ababa University

2.4 Implementation of a module

According to Corey e*t al.* (1970), the learner begins Modular Instruction by taking pretest that will indicate the appropriate level. Little awareness with the subject area to be explored which can be as detrimental to successful learning as too much. In case the student does not have all necessary prerequisites, he may need prior remedial or deficiency instruction. If he has already got the required competencies in the area of particular module, he is allowed to proceed to a more advanced module or to the one that has a different and little bit more difficult content. The students are evaluated again after the completion of a module. The post-test identical to the pre-test is usually administered to students to check out the effectiveness of the modular programme.

The results of the post-test show to what extent the student has achieved the mastery of the module's objectives. In case of failure to achieve the mastery learning, the students are allowed to recycle through the module or through the parts of it or he may take a deficiency/remedial module. If he achieves mastery leaning, he proceeds to the next module.

2.4.1 Evaluation in Modular Instruction

According to Goldschmid & Goldschmid (1973), evaluation provides a feedback to both the learner and instructor. In this respect, it is one of the important components of well-designed Module programme. The purpose of evaluation involves the assessment of prerequisite skills, analyses of difficulties faced to learner, and the confirmation of mastery. At the same time, the evaluation of student performance is used as assessment of the instructional process that provides direction for the design and process of instruction.

There are a number of techniques such as paper-and-pencil tests, oral quizzes, performance tests, and individual and group projects can be used to evaluate a module.

There are variety of ways and methods used for awarding final grades in Modular Instruction. The students receive “A” who completes all the required modules in some situations. In case of mastery of some of the units, then, "B" or "C" is earned. They are also assigned some additional credit in the form of some extra modules or special projects or the reading of articles or books. In this way, the student has been provided choice in making decision about his own grade level and the strategy for achieving it. The grades are not allotted on the basis of normal curve or of comparison among other students of the class but rather on an absolute basis (Bloom, 1968). As a result, grades in Modular instruction are usually somewhat higher than average. They may have means of B or B+ and modes of B or A. This is a fact, which

should not be surprising about the performance of the students of acquiring and retaining of more material (Corey e*t al.*1970).

There is immediate provision of reinforcement and feedback in Modular Instruction. The material presented to students for teaching has been broken into small units. The students are able to find out their mistakes and deficiencies at the spot, and correct them immediately. It generates feeling of accomplishment on the part of the student about the task that is performed by them.

2.4.2 Validation of Module

According to Rumpus (2003), modules are effective for improving the quality of instruction if they have been developed in consistent way, and if all components of the module match with one another. It can be validated in following ways. It must start with the aims of module. This describes what the module wants to achieve, the broad content addressed by it, and any motivation or aspirations that it will provide for the learners. For this purpose, Rumpus (2003) has identified following should be considered:

- **i.** the aims of the module should match with the outcomes of the course
- **ii.** the aims of the module should match with the objectives of the subject area
- **iii.** they should match with the quality assurance subject benchmark
- **iv.** they should match with the employability criteria

2.4.2.1 Learning Outcomes

- **i.** According to Rumpus (2003), learning outcomes are the statements that describe what you expect the students, who pass, to have achieved by the end of the module. They should be five or six statements that are prefaced by the phrase, “by the end of module students are expected:” For this purpose following statements should be considered:

ii. Are they aimed at what the learner will achieve?

iii. Do the learning outcomes are aimed at the average learner who will pass the module?

iv. Are the statements simple, using strong words, assessable, achievable within the given time frame?

v. Are the outcomes appropriate for the learner at the certain level?

vi. Are the learning outcomes properly describe the level of the work at which the student is operating? Levels should fit in the way in which the students expected to show progress in the area of intellectual development as he moves through the module.

vii. Are the learning outcomes aimed at showing progress from any prerequisite module at a lower level?

viii. Are the learning outcomes aimed at the inclusion of any subject related or transferable skills that the student will be acquiring?

ix. Are the modules contributed to the development and promotion of care management skills?

2.4.2.2 Assessment strategy of the Module

According to Rumpus (2003), there are different assessment methods that can be used for module. There are some traditional and time-tested methods used in different subjects and there are some modern methods practiced by the educationists. The method contains the following important characteristics:

i. Are the learning outcomes measured by the application of assessment methods?

ii. does it measure skills as well as knowledge?

iii. Does the method help the students to learn in reflective and active manner?

iv. Will the students be motivated to learn by the application of assessment method?

v. Can you use any alternative methods that are more effective in use of staff time?

vi. Are you certain that your method is not overburdening the students?

vii. What formative components/parts are included?

viii. Have you decided about the adequacy of an average pass mark of your overall assessment, or whether you want to have the performance for each individual element is on the basis of threshold level?

ix. When the module is put into practice, a "brief" for the work might be provided to students about the allocation of marks in relation to each part of the work.

2.4.2.3 Content of Module

According to Rumpus (2003), content is main area of the subject, which should be delivered through the module and should cover knowledge, understanding and skills. It should focus on the following questions:

i. Does the subject matter/content of the module match with the outcomes?

ii. Does the content given in the module need any pre-requisite knowledge or skills? Should you need to set any pre-requisites or co-requisites?

iii. Does the content of the module need any professional body/subject benchmark requirements?

iv. Have you incorporated any necessary skills?

v. Is the amount of content match with the number of credits available?

2.4.2.4 Teaching and learning strategy

According to Rumpus (2003), teaching learning strategy has been decided on the basis of mode of presentation of module. The modules can be represented face to face, online or a mixture of both. The mode

of delivery and selection of teaching strategy focus on the following questions:

i. Does the presentation pattern or mode enable the student to obtain the learning outcomes?
ii. Does it encourage and promote student centered learning in the student?
iii. Does it encourage and promote reflective learning in the student?
iv. Does it ensure the development and identification of transferable skills?
v. Are there any other methods that would be more efficient for learning of the students?
vi. Is your delivery mode match with the given resources and time schedule?

2.5. An overview of European credit transfer and accumulation system in modular approach (ECTS)

2.5.1 Credit System

According to Bologna Declaration of June 1999, a credit system is a systematic way of describing and educational program by attaching credits to its components. The definition of credits in higher education systems may be based on different parameters, such as student workload, learning outcomes and contact hours.

2.5.2 The Concept and Development of ECTS

The European Credit Transfer and accumulation System is a student-centered system based on the student workload required to achieve the objectives of program, objectives preferably specified in terms of the learning outcomes and competences to be acquired.

European Credit Transfer and Accumulation System were introduced in 1989, within the framework of Erasmus, now part of the Socrates

program. European Credit Transfer and Accumulation System is the only credit system which has been successfully tested and used across Europe. It was set up initially for credit transfer. The system facilitated the recognition of periods of study abroad and thus enhanced the quality and volume of student mobility in Europe. Recently ECTS is developing into an accumulation system to be implemented at institutional, regional, national and European level. This is one of the key objectives of the Bologna Declaration of June 1999.

European Credit Transfer and Accumulation System make study programs easy to read and compare for all students, local and foreign. It facilitates mobility and academic recognition and also helps universities to organize and revise their study programs. European Credit Transfer and Accumulation System can be used across a variety of programs and modes of delivery. It makes European higher education more attractive for students from abroad.

3.5.3 The Key Features of ECTS

European Credit Transfer and Accumulation System is based on the principle that 60 credits measure the workload of a full-time student during one academic year (Hence, for a master's Degree program a students must take at least 90 ECTS). The student workload of a full-time study program in Europe amounts in most cases to around 1500-1800 hours per year and in those cases one credit stands for around 25 to 30 working hours.

In Ethiopian context, as it was proposed by Biritu,A.*et.al* (2013) that, on average students are expected to work 50 hrs. Per week (usually students are expected to work 8 hrs. per day and 40 hrs. per week) (5daysx8hrs=40hrs) but sometimes students work 12 hrs. Per-day, i.e. 60 hrs. Per-week. Therefore, 50 is average (40+60=100/2=50). This

means that since there are 32 weeks in one academic year, students are supposed to work 32x50=1600 hrs per year. Therefore,, in this case 1ECTS=27 study hrs (32x50/60=26.6study hrs) where 60 is the minimum ECTS that a student is supposed to take in one year, 32 is the number of academic weeks per year and 50 is the total hours that a student is supposed to work per week. Therefore, it is recommended to follow logical analysis to allot ECTS or credit points to courses or modules.

2.5.4 Study hours in a module

The number of credit points for a module of course could be converted into study hours and then these could be allocated to teaching-learning activities, including assessment

For example: In Addis Ababa university Master program, a module has been allocated 10 ECTS credit points. That means a total of 10*27=270 study hours. This could be divided into:

- 108 hours (40%) for Interactive teaching learning,
- 108 hours(40%) for independent learning
- 54 hours(20%) for collaborative learning

Credits in ECTS can only by obtained after successful completion of the work required and appropriate assessment of the learning outcomes achieved. Student workload in ECTS consists of the time required to complete all planned learning activities such as attending lectures, seminars, independent and private study, preparation of projects and examinations etc. These components of the workload may vary from course to course. Some courses may have one, two more than two components depending on the nature of the courses.

Credits are allocated to all educational components of a study program (such as modules, courses, placements, dissertation work, etc.) and reflect the volume of work each component requires to achieve its specific objectives or learning outcomes in relation to the total quantity of work necessary to complete a full year of study successfully.

The school of Graduates Studies of the Addis Ababa University instructed all Master's Programs to cover their previous Credit system into ECTS system. It instructed 89.5 ECTS to be the maximum requirement for all masters programs with the assumption that 1 ECTS could vary from 25 to 30 learning hours. It also assumes that 2237 - 2685 hours of students work load will suffice for the award of Master's Degree.

This conversion, however, was not an easy task for most master's programs at the Addis Ababa University. Developing equivalence between the earlier 30 Cr.hr of the master's program and the newly proposed 89.5 ECTs has been also found problematic for most departments. Accordingly serious discrepancies among the masters programs and critical deviation from the proposed number of ECTS have been observed. For instance, some of the programs just divided 90 ECTs to 30 Cr. They used the ratio 9:3 which implies an equivalence of 3 Cr.hr courses to 9 ECTS module or vice versa.

More specifically, 1 Cr.hr course is considered and converted into a 3 ECTS module. Others just converted a 3 Credit hour course into 7 ECTS module.

The European Credit Transfer and Accumulation System (ECTS) is a learner- centered system based on the transparency of learning outcomes and learning processes. It aims to facilitate planning, delivery, evaluation, recognition and validation of qualifications and units of learning as well as student mobility. ECTS is widely used in

formal higher education and can be applied to other lifelong learning activities as well.

The major difference between the ECTS and Credit system is the ECTS is based on student load and Cr3 credit system on contact hour. ECTS is more oriented towards the students (the time required for students to meet the intended learning outcomes) whereas the credit system towards the faculty (the time a faculty member needs to teach). The following is the conversation used between ECTs and US College credit:

1=Credit Hours = 1.67 ECTS

2=Credit Hours= 3.34 ECTS

3=Credit Hours = 5 ECTS

4=Credit Hours = 6.67 ECTS

However, this conversation needs to be contextualized if it is to be adapted in AAU context. That is the time a full time student is expected to invest learning within a given academic year determines the value of ECTs to be allocated for each module and components of modules.

2.6 Review of related research studies

The research studies conducted about module and modular teaching have identified the following basic principles and instructional strategy.

Goldschmid and Goldschmid (1973), say that there has been an increasing focus on individualized instruction in higher education. It is viewed as a reaction to crowded classrooms that foster anonymity in teaching and learning. On the other hand, many studies have recently re-emphasized that there are great differences in how each student learns. Thus, there emerges the need for instructional systems that can make higher education available to large numbers of students, and at the same time, offer an individualized learning experience.

They (Goldschmid and Goldschmid, 1973) have also emphasized that among the various systems of individualized instruction proposed so far, modular instruction is one of the newest and contains many

advantages and instructional innovations for the students, such as performance objectives, self-pacing, and frequent feedback. A number of colleges and universities have successfully implemented modular courses and increasing interest in this approach is developing on many campuses. The analyses of the research studies about the Module are as under:

Fitzgerald (1977) says module, “as a manageable unit of instruction” The Manageability of a module refers to the amount of time and effort required from the student to achieve mastery of modular content. Its effectiveness can be evaluated and its content can be changed. It has also the possibility of combining module with similar units to create alternative sets of modules for different instructional purposes. Finally, the definition also specifies that a module is a unit not only for information but also for instruction. The modular unit covers all of the aspects of teaching and learning situation, such as tests, objectives, and so on, not just the materials from which the student is to learn.

Creager and Murray (1971) says that the "information explosion," and a large number of students, limited financial resources, and rising dissatisfaction with our traditional educational system, all make it compulsory to find out more effective method and material of instruction. It is challenging and time consuming to design and implement high-quality modular instruction that offers many advantages and interesting possibilities.

Because of its flexibility and adaptability to large numbers of students, and its emphasis on individualized learning has become one of the most promising alternatives in higher education.

Brown and Lewis (1997) conducted study on the importance of module and Pointed out that modules are not only used in educational institutions but also outside the classroom. They are very flexible and can be implemented through a variety of patterns for individual or

group users. It has been recommended by Biritu,T *et.al* (2013).in the revised guideline for curriculum modularization in Ethiopian higher education institutions that training of the personnel's would be enhanced up to the required standard through the module. Self-learning mechanism or strategies will be introduced and implemented at different levels of educational system to improve the quality and standard of education.

Creager and Murray (1971) point out that current uses of modules range from one or a few modules included into a traditional course to modularization of the entire course.

They predict that in the near future, it is hoped that the entire curricula or interdisciplinary programs may be structured on the pattern of modules. It will provide opportunity to each student's to design his/her teaching learning process on the basis of the individual needs.

In the United Kingdom, USA, European and Asian countries a variety of personalized systems like modular teaching are practiced with great success. Most programmes are made self-instructional and student centered to make teaching learning process more effective for the students studying at different levels.

Sharma (1999) says that feedback system in modular design consolidates the learning process and provides an opportunity to students to reflect on the material. There are different types of learning activities in the shape of textual questions without answers, and with answers, self-assessment questions organized in the form of quiz or a set of questions.

Green and Hick (1989) say that the self-instructional module is flexible enough to suit the needs of individual student. It caters the needs and requirements of slow as well as the speedy learners that are not

possible in conventional classroom where all the students are obliged to follow the same pattern of learning, designed by the teacher.

Bokhary (1987) says that the self-assessment plays an important role in modular approach. The learner is not in a face-to-face situation with the teacher; therefore, he needs a self-assessment mechanism for evaluating his performance. It gives encouragement and feedback to learner for interacting with the approaching material.

Sampathat *et al.* (1989) pointed out that module integrates theory and practice. It specifies a number of contact hours for a week for doing theoretical and practical work.

The students are allowed to proceed in the learning process according to their own speed and level of intelligence, following different styles. In this way theoretical and practical work can be done interchangeably.

Romiszowski (1984) says that module encourages and supports independence in learning. There is major shift from teacher to student that makes the climate exclusively learner centered. This is an important step for developing the habit of independent learning among the students. It provides learning autonomy, confidence and motivation for the learner.

Allen and Sickle (1984) report that, conventional courses are usually graded on the basis of nominative pattern i.e.by comparing the work of each student with that of the others.Sometimes, it so happened that the students pass a course by obtaining grade as low as fifty percent marks, implying that fifty percent of the content was left which was not mastered. By contrast modules have built in fail-safe–mechanism that encourages students to master the entire material. The achievement tests are set with this aim in mind. It avoids the hit and miss approach of the conventional course and ensures that future work is based on a sound understanding of the all the previous learning.

The modules meet the conditions necessary for effective learning. They have fundamental characteristics in their design include self-pacing, immediate confirmation of the right or the wrong answer, active participation of learner, teacher as a facilitator of learning process, economical to prepare, flexible to be administered, easily updated, careful sequencing of learning material, objectives given in behavioral form, flexibility for the learner, and can be administered to individual or group of students. It has been used successfully throughout the world since five decade.

In the other way round, Solomon *et al.(*2013) research report on academic staff's views and practices of modular course delivery at graduate program of Addis Ababa university indicated the gaps and misconceptions that, many members of the academic staff tends to equate the modular program to block teaching .The study added that, the implementation of most radical components of the program like interactive teaching-learning, independent and collaborative learning and the major paradigm shift in educational philosophy of teachers role as a facilitator of learning experience was a major challenge of the program

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1 Method

This chapter deals with the procedure adopted to conduct the study. The research looks various steps to complete the study. The study employed a survey method and also descriptive in nature. The research depended on the related literature and structured questionnaires. Disruptive data were typically collected through a survey questionnaire (Gay, 1996)

The survey method was considered to be appropriate to investigate the current practices and challenges of modular instruction at Addis Ababa University to explore the major challenges experienced while running the program. The study solicited the suggestions to solve the problems.

3.2 Sources of Data

The primary sources of data for the study were master's program instructors' in the existing modular program and master's final year students'. Relevant data have also been gathered from different documents of the university such as brochures that state the vision, mission and goals; demographical characteristics of instructors and students; and manuals prepared for training purposes. Beside these sources, various related books, proceedings and different web sites were consulted

3.3. Sampling Techniques and Sample

The study employed different sampling procedures to select the appropriate samples. Collage of education and behavioral studies and institute of educational research were selected for the study by purposive sampling technique due to its responsibility to organize, coordinate, modular master's program as well as lead different

educational research, testing and training activities at their respective levels.

Modular master's program instructors' and Final year Students' enrolled in the Master degree of Education (MA) program; of Addis Ababa University constitute the population of the study. Graduate program coordinators' and department heads those who took special training on the designing ,planning, development and implementation modular program as well as those who are directly or indirectly participated in the preparation of the procedures for master's program, process of modularization and block teaching document prepared by the school of graduate studies of Addis Ababa university also constitute the population.

3.4 Sample

Collage of education and behavioral studies encompasses departments namely, Curriculum and teachers professional development studies, Educational planning and management, special needs, social science and language education (PGDT) and School of psychology. According to Addis Ababa University, communication office information booklet, (20013) currently the collage runs 13 postgraduate master's programs.

All master's program Instructors' in the colleges of education and behavioral studies from 66 of the population 33 were selected by convenience sampling, a sample of 66 students from164 of the population enrolled in 2012/13 final year in the regular master's degree of education program (MA) were selected through convenience sampling.

A manageable sample size was selected through different sampling techniques from the following sample population.

Accordingly, 1 from the school of graduate studies, 1department head and1 Master's program instructor was selected purposively for the interview. About 66 students' and 33 instructors' a total of 99 sample

respondents' 99 questionnaires were prepared and a total of 78 respondents were considered for the study purpose**.**

3.5. Data Gathering Instruments and Procedures

Questionnaire is more efficient in that it requires less time ,less expensive and permits collection of data from much larger sample (Best and Kahan,1992) It quite suitable instrument for the collection of standardized and quantifiable information from all members of a sample . It easy to fill out, keeps respondents on subjects is relatively objective and fairly easy to be tabulated and analyzed (Van Dalen, 1973).

The questionnaires were developed based on the objectives of the study. Two types of questionnaires were developed related two the composition of the sample. Some of the items were closing ended based on the five point scale and others are alternative and rating scale. A few items were directly taken form Solomen *et,al,* (2011) because they are in line with the research objectives

After preparing the questionnaires, these were distributed among three experts for their opinion and advice, for the improvement of questionnaires. They were requested to put their comments on the questionnaires. All experts return the questionnaire with their comments. Each questionnaire was improved in light of their comment.

The researcher was kept on taking notes about any difficulty faced by the respondent. The questions were refined on the basis of response of the respondents. Those statements for which respondents ask for explanation or they will took too more time to understand was revised. Those words for which respondents ask for meaning of some difficult words were changed with familiar simple words especially for student respondents'.

3.6 Data analysis

The questionnaires were received from the respondents, wase analyzed. Rating scale, alternative as well as statement that have five responses, 1.Strongly agreed 2 Agreed 3.Undecided 4.Disagreed 5.Strongly disagreed were used. For the purpose of analysis of other responses, numerical codes were assigned to the different responses.

Chi-square test a contingency test was applied on the tables that showed the

Frequency of responses in different categories. Data collected through above mentioned instruments were tabulated, analyzed and interpreted category-wise compare responses of common items within two groups (Students and instructors) for statistical treatment chi-square as a contingency test was applied at level of significance 0.05.

There were two open ended questions in each questionnaire. In questionnaire one, the respondents was asked to enlist the challenges and constraints related to modular MA program. The challenges and constraints regarding modular master's program described by the different respondents were listed and then the frequency of the respondents identifying each challenge and constraint were given against each challenge. In the same way, if respondents' gave additional suggestions regarding the modular program the suggestions put forth by different respondents' were listed along with the frequency of respondents given each suggestion.

On the basis of the analysis and interpretation of data conclusion were drawn and recommendation was made.

CHAPTER FOUR

4. PRESENTATION AND ANALYSIS OF THE DATA

This chapter deals with the presentation and analysis of data gathered on the general characteristics of the respondents and the main features of modular Curriculum, modules and mode of delivery.

4.1 General Characteristics of the Respondents

Table1. Respondents' of Sex and educational qualifications

Respondents'								
Characteristics	Students'		Instructors'					
			Sex Ratio		Academic Qualification			
	Sex Ratio				M.SC/MA		PhD	
	N	%	N	%	N	%	N	%
Female	8	15.1	-	-	-	-	-	-
Male	45	84.9	25	100	7	28	18	72
Total	53	100	25	100	7	28	18	72

Two groups of respondents, final year master's program Students on one hand and master's program instructors on the other hand, were approached from all departments running master's program in collage of education and behavioral studies to fill the questionnaires prepared for the study purpose. The information from the participants of this study indicates that there were few (only 3) female instructors. The sample population of the study showed that there are no female instructors. This shows that, there is a problem of gender mix in the sample college, though it is believed that the presence of female

instructors serves as a role model for female students. It was also observed that, about 72% of instructors have PhD and 28% were master's degree with academic rank of minimum assistant professor. This shows that instructors are qualified for the level. The implication is that the more the instructors are qualified and experienced the better they are at identifying problems in modular curriculum and mode of delivery.

Moreover form three departments of the collage 84.9 % were male students and 15.1% were female graduating class students. It was observed that, the proportion of female students' limited .This indicates the problem of female participation in higher education was a staggering challenge.

A total of 99 questionnaire copies were distributed to respondents in the college. Only 78(78.78 %) were filled and returned, of which 53 (80.30%) were students and 25 (75.75%) were instructors.

4.2 The main features of modular Curriculum and mode of delivery.

4.2.1 The purpose of modular master's program

It was repeatedly emphasized by research results of Biritu,T.*et.al* (2013) that graduates need to be equipped to make their own jobs. Most importantly, it requires a pedagogy that encourages students to take risks and to think both critically and creatively. Creativity and risk taking are absolutely essential for entrepreneur. In adaption a successful entrepreneur is likely to be well organized, hardworking, self-motivated and able to manage their own time well. It is obvious that an overcrowded, spoon feeding curriculum and pedagogy will not achieve these qualities. The following table shows respondents'

response on the purpose of modularization in the master's program of Addis Ababa University.

Table 2: Ratings on the purpose of modular master's program of AAU

No	Item	Rate	Respondents'				Total Column F & %		$\chi 2$ test (df= 2)	P Value
			Students (N=53)		Instructors (N=25)					
			F	%	F	%	F	%		
1	Customers need and expectation of competent graduates	High	31	58.5	5	20	36	46.2	**14.165**	**0.01**
		Med.	18	23.1	11	14.1	29	37.2		
		Low	4	5.1	9	11.5	13	16.7		
2	External stakeholders (Government and, Funding agents) need and pressure	High	0	0	16	20.5	16	20.5	**28.245**	**0.00**
		Med.	17	32.1	4	5.1	16	26.9		
		Low	36	67.9	5	20	41	52.6		
3	Wide spread pressure of government reform especially from Ministry of education	High	8	15.1	19	70.6	27	34.6	**28.245**	**0.00**
		Med.	24	30.8	2	2.6	26	33.3		
		Low	21	39.6	4	16	25	32.1		
4	Complain of employers of Ethiopian graduates that they lack abilities on practical application and problem solving	High	45	84.9	4	16	49	62.2	**34.544**	**0.00**
		Med	4	7.5	10	40	14	17.9		
		Low	4	7.5	11	44	15	19.2		
5	Global experience of recent study on learning	High	32	64.4	18	72	50	64.1	**4.421**	**0.11**
		Med.	19	35.8	4	16	23	29.5		
		Low	2	3.8	3	12	5	6.4		

- ***F = Observed Frequency; %=percentage of respondents' df=degree of freedom (Other tables follow the same explanation), Significant at 0.05, p<0.05***

The effectiveness of the existing modular master's program depends on the extent to which people understand and recognize its purpose. The above table shows the respondents' response on items related to the purpose of modular master's program

As depicted in Table 2above , respondent were requested to rate listed purposes of why modular master's program was initiated at AAU as high medium and low in terms of priority. Regarding customers need and expectation of competent graduates, the percentage of within respondents' category were taken a comparison of their views of rating preference. In this regard 50% of students showed high priority. However 44% of instructors rated medium or low priority for the statement. External need and pressure relatively given medium priority by students (67.9%) and instructors' rated high priority were only (20.5%).

With regard to item four significant differences in rating was greatly pronounced. It was found that, about 84.9% of students rated that, Complain of employers of Ethiopian graduates that they lack abilities on practical application and problem solving as high priority; on the contrary about 44% instructors' rated low priority. Global experience of recent study on learning was given high priority by both students (60.4%) and instructors (72%).

One of the interviewee, for instance has the following to say when asked the purpose why modular instruction was initiated at AAU revealed that,

> It is because of apparent pattern of weakness in the graduates that are presently coming out of the higher education institutions. One common problem was that, graduates lack practical competence. AAU realized this problem and was addressing it through the development of more practical curriculum (modular curriculum).

In review of graduate of AAU policy of senate legislation on education and research 602, (2009) indicated that, the purpose of modular master's program was initiated to have innovative and efficient graduate program that responds to skilled man power and scientific knowledge needs of the county. According to different authorities, (Solomon *et.al*, 2011) revealed that, modular curriculum was emerged as a result of dissatisfaction with traditional designs well as in response of the changing needs of modern global society and developing system of mass participation in higher education.

This implies that, the rational and purpose modularization stretches far beyond method of teaching and scheduling the academic year. It is about producing educated and trained person, the contemporary society and the global market demand. A chi-square test was employed to test if there is a statistically significance difference in prioritization of purpose among respondents, most importantly the views between two categories showed statistically significant opinion difference ($P< 0.05$) on item 1.2, 3, and 4.

This was clear indication that, frontline implementers (students and instructors) were not fully aware of the purpose of modular master's program.

Furthermore, non-significant difference in the views of respondents ($P>0.05$) indicates respondents support to the statement.

This shows that "global experience of recent study on learning" is the only reason that modular program is initiated at AAU. This implies that, a few proportions of respondents were hardly aware recent reform programs of AAU. It is probably mean that they think the purpose of modular program is initiated based on research evidence.

4.2.2 Module Objectives

Clearly stated objectives have a key role for those who design modules for the teacher who uses them and for the students' studding. Well stated objective gives the module writer for the selection of subject matter, learning activities and test items and what the learner is expected to achieve. With regard to the above scenario, some items are designed to probe whether module objectives in existing master's program is achievable or not.

Table3: Showing respondents views/opinion on modular course objectives

No	Item	Responses	Respondents'				Total Column F & %		$\chi 2$ Test value (df=1)	P Value
			Students (N=53)		Instructors (N=25)		STs	INs		
			F	%	F	%		%		
1	The objectives given in the existing Master's Modular curricula are attainable taking in to account:									
	the ability of students	Yes	26	54.7	16	64	45	57.7	**0.60**	**0.439**
		No	24	45.3	9	36	33	43.3		
	time constraints	Yes	34	64.2	13	52	47	60.3	**1.047**	**0.306**
		No	19	35.8	12	48	31	39.7		
	desired out comes	Yes	40	75.5	17	68	57	73.1	**0.482**	**0.485**
		No	13	24.5	8	32	21	26.9		

Significant at 0.05, p<0.05, INs=Instructors' STs=students'

Table: 3 above showed that, there is no statistically significant difference in the views both groups regarding modular objectives. This suggests that their views support the statement (positive). However

statistical association (likelihood) between two groups indicated that about 75.5% student 68% to instructors showed relatively high positive view on the success of desired out comes. On the contrary, the ability of students and time constraints appears slightly negatively implication.

The chi-square test reveals that, respondents' view showed no statistically significance different is their views, (P> 0.05).The above finding favors Block (1987). According to Block (1987) in writing modules, just as development of any form of learning resource, it is essential the objective cover all categories of achievement appropriate for the students and for the subject matter involved. In this regard the objectives were attainable taking is to account the ability of students, time constraints and desired out comes.

The chi-square test (P< 0.05) suggests, respondents' response was positive to the argument. This finding indicates that, modules are well designed and appropriate for students' to achieve intended learning out comes.

4.2.3: Physical and academic facilities

According to Jujjar and Dogar (2006) that latest books, encyclopedias, journals and periodicals should be made available in the libraries of higher education institutions. It was also supported by Rao (2005) who was of the view that there is no faculty for experimental school or laboratory, library and other equipment necessary for a good teaching-learning. It was recommended by Baig (1996) that library resources, including study space should be developed at college level.

Table 4: shows respondents' view on physical and academic facilities

No	Item	Responses	Respondents'				Total Column F &%		χ2 Test value (df=1)	P Value
			Students (N=53)		Instructors (N=25)					
			F	%	F	%	F	%		
1	Physical facilities are adequate for successful teaching and learning process.	Yes	27	50.9	11	44	38	48.7	**0.328**	**0.567**
		No	26	49.1	14	56	40	51.3		
2	Teaching- learning facilities are available throughout :									
	a. The day	Yes	44	83.3	8	32	52	66.7	**19.897**	**00**
		No	9	17	17	68	26	33.3		
	b. In the evening	Yes	21	39.6	6	24	27	34.6	**1.832**	**0.176**
		No	32	60.4	19	76	51	65.4		
3	Latest book/ journals are available in the library	Yes	29	54.7	9	30.6	38	48.7	**2.382**	**0.123**
		No	24	45.3	16	64	40	51.3		
4	Class rooms are large enough for proper utilization of audio visual aids	Yes	43	81.1	14	56	57	73.1	**5.453**	**0.020**
		No	10	18.9	11	44	21	26.9		
5	On line sufficient research/ internet facilities are available in the library	yes	24	43.3	5	20	29	37.2	**4.649**	**0.031**
		No	25	84.7	20	80	49	62.8		
6	Instructors who teach in the current modular master's program are professionally sound	Yes	28	52.8	16	64	44	56.4	**0.862**	**0.353**
		No	25	47.2	9	36	34	43.6		
7	Instructors who teach in the current modular master's program are academically sound	Yes	37	69.8	20	80	57	73.4	**0.896**	**0.344**
		No	16	30.2	5	20	21	26.9		

According to Table 4 above statistically significance difference were observed in the proportion regarding physical and academic facilities

for item no. 2, 4 and 5 where (P<0.05). This suggests, significant response difference was observed between respondents in the availability of teaching learning during the day time.

It was found that, inconsistency was observed between students and instructors' view with respect to the size of class room and audio-visual usage. Furthermore significant opinion difference was observed with the library associated with the availability of research and internet facilities. This implies that sufficient research and internet facilities were not available in the graduate library.

It was supported by Juija and Dogar (2006) that, latest books, encyclopedia internet should be made available in the library.

It is also supported by Rad (20000), who was of the view that, there is no faculty for an experimental school or laboratory, library for good teaching learning.

This indicates that students and instructors were not satisfied with some of the physical facilities and academic facilities.

4.2.4 Proportion of out of class room opportunity for Self- and Collaborative learning

It is pretty much obvious that, the policy of graduate program recommended that 60% of modular learning activities must be covered through self-learning and collaborative learning, apart from inside class room interactive teaching learning activities (40%). This indicates that, much emphasis was given to out of class room activities in the existing modular master program. An attempt was made to examine if there is statically significant opinion difference in the views of respondents' regarding the appropriateness of out of Class room activity in the existing modular masters' program

Table-5: shows the appropriateness of the existing modular master's curricula towards out of classroom activities.

No	Item	Rate	Respondents'				Total %		χ2 Test value (df=3)	P Value
			Students (N=53)		Instructors (N=25)		Students	Instructors		
			O	E	O	E				
1	The proportion of out of class room activities of modularized curriculum is favorable	SA	0	0.7	1	0.3	0	4	9.234	0.056
		A	13	17.7	13	8.3	24.5	52		
		UD	4	4.1	2	1.9	7.5	8		
		DA	34	28.5	8	13.5	64.2	32		
		SD	2	2.0	1	1.0	3.8	4.0		
2	The master's curricula is dominated by nominal out of class room student activities	SA	10	9.5	4	4.5	18.9	16	8.123	0.087
		A	31	26.5	8	12.5	58.5	32		
		UD.	4	5.4	4	2.6	7.5	16		
		DA	8	10.9	8	5.1	15.1	32		
		SD	0	0.7	1	0.3	0	4		
3	Modularized master's curricula in terms of its potential and appropriateness create out of class room learning opportunity for students.	SA	0	1.4	2	0.6	0	8	13.417	0.009
		A	11	14.3	10	6.7	20.8	40		
		UD	4	6.1	5	2.9	7.5	20		
		DA	34	27.9	7	13.1	64.2	28		
		SD	4	3.4	1	1.6	7.5	4		

O=Observed Frequency, E=Expected frequency (Other tables follow the same explanation) Significant at 0.05, p<0.05

Table 5: above shows,the distribution of opinion preference between students and instructors. As the table shows, the distribution of preference is significantly different between two a groups for item no. 3,

which is concerned with the appropriateness of the existing modular curricula in creating out of class room opportunity for students.

The chi-square test revealed that, statistically significant opinion difference in the views of students and instructors is obtained ($\chi 2$ = 13.417, P < 0.05).

This implies that, modular master's curricula are dominated by nominal out of class room activities even though the proportion of out of class room activities is favorable.

It is pretty much obvious that, the policy of graduate program recommended that 60% of modular learning activities must be covered through self-learning and collaborative learning a part form inside class room interactive teaching learning activities (40%). This indicates that, much emphasis was given to out of class room activities in the existing modular master program

The same result was obtained by Solomon *et.al* (2011) that, most of the teaching staff was not happy about the quality of out of class room activities implied by the curriculum.

To this end the finding indicated that, respondents believed that, the proportion of out of class room activities of the modularized curricula is too much to put in to effect.

4.2.5 Modular curriculum self-learning

Table-6: shows the attitude of respondents towards self- learning (independent learning)

No	Item	Responses	Respondents'				Total Column %		χ2 value (df=3)	P Value
			Students (N=53)		Instructors (N=25)		students	Instructors		
			O	E	O	E	%	%		
1	Modules/ courses, were designed as self-instructional units for independent study	SA	4	4.1	2	1.9	7.5	8	4.918	0.296
		A	29	29	9	9	54.7	36		
		UD.	9	9.5	5	4.5	17	20		
		DA	9	12.2	9	5.8	17	36		
		SD	2	1.4	1	0.6	3.8	0		
2	The information given in modules/course are enough for independent learning	SA	2	2.0	1	1.0	3.8	4	5.552	0.136
		A	30	33.3	19	15.7	56.6	76		
		UD.	14	10.2	1	4.8	26.4	4		
		DA	7	7.5	4	3.5	13.2	16		
		SD	0	0	0	0	0	0		
3	The modular master's curricula help student's to develop capacity for independent learning and critical thinking	SA	4	8.2	8	3.8	7.5	32	8.00	0.046
		A	32	29.2	11	13.8	60.4	44		
		UD	4	4.1	2	1.9	7.5	8		
		DA	13	11.6	4	5.4	24.5	16		
		SD	0	0	0	0	0	0		
4	The modular master's curricula integrate theory and practice for a learner to precede each practical work by appropriate theoretical explanation	SA	8	6.1	1	2.9	15.1	4	15.645	0.04
		A	19	26.5	20	12.5	35.8	80		
		UD	6	6.1	3	2.9	11.3	12		
		DA	18	12.9	1	6.1	34	4		
		SD	2	1.4	0	0.6	3.8	0		

O=Observed Frequency, E=Expected frequency (Other tables follow the same explanation)

As shown in table 6 above, there was statistically significance opinion difference between their views of students and instructors for item no. 3 and 4 where (P < 0.05). This shows that, students and instructors have negative view towards the argument. For the other items (No. 1 and 2) no statistical significant difference is obtained (P> 0.05), in their views. This suggested that, both groups support the argument (positive agreement).

According to different authorities Romiszowsk (1984), modules are designed as self-instructional unit for independent learning and place the learner far greater in his /her own learning.

The chi-square test inferred that, item No. 3 and No. 4 were found to be statistically significant on the capacity of students for independent learning. ($\chi 2$ = 8, P < 0.05). This indicates that, significance difference was found between the two groups. Instructors (76%) were more likely positive views than students (67.9%). This indicates that, students didn't realize the concept and potential of self-learning. Similarly, the potential of modular curricular to integrate theory and practice was found to be statistically significant ($\chi 2$=15, P < 0.05). In this regard the views of respondents on the potential of modular. Master's program suggests significant opinion difference between the two groups.

The above result was not consistent with Smspathat *et.al* (1989) finding that, modules integrate theory and practice in such a way that modular curriculum here the potential to specify a number of contact hours for a week for doing the practical and practical work.

According to Solomon *et a*l (2011), modules offered at graduate program of AAU help develop students a capacity for in dependent learning and critical thinking and provide useful knowledge and skill.

4.2.6 The potential of Modular curriculum in creating future job opportunity for graduates

Table 7: shows the potential of modular master's program in creating future graduate employment

No	Item	Scale	Respondents' Responses				Total Column %		χ^2 Test value (df=3)	P Value
			Students (N=53)		Instructors (N=25)		Students	Instructors		
			O	E	O	E	%	%		
1	The modules/courses offered potentially could prepare students for their future employment and career	SA	6	4.1	0	1.9	11.3	o	7.503	0.112
		A	31	31.9	16	15.1	58.5	64		
		UD.	4	6.8	6	3.2	7.5	24		
		DA	8	6.8	2	3.2	15.1	8		
		SD	4	3.4	1	1.6	7.5	4		
2	Modular teaching promotes self-confidence of the students and paves the way for lifelong learning.	SA	7	6.8	3	3.2	13.2	12	7.376	0.117
		A	31	30.6	14	14.4	58.5	56		
		UD.	5	7.5	6	3.5	9.4	24		
		DA	10	7.5	1	3.5	18.9	4		
		SD	0	0.7	1	0.3	0	4		

- ***Significant at 0.05, p<0.05***

Documented data indicated that, there may be a lack of mismatches between Ethiopian employer's and stakeholders' requirements. This implies that higher education of Ethiopia produce many graduates ill-prepared for market demands of contributing to the regional and national development and so vulnerable to graduate unemployment. Graduate unemployment can be very costly both in social and economic terms. To this end, the researcher seeks to probe the views of respondents that, the existing modular master's program has the potentially to prepare students for their future employment and careers. An attempt was made to examine whether differences on the

potential of modular curriculum on graduates future employment, problem solving as well as lifelong learning or not. (As shown in Table 7)

Chi-square test obtained revealed that, there was no statistically significant difference in the views of the two groups ($\chi 2$= 5.03, 3.76, P< 0.05). On the other hand, one of the interviewees from the college for instance, has the following regarding the potential of modular approach in creating job opportunity reported that:

> Even though the theory and principle of modular approach is very good, it wasn't implemented as per the principle in our context. I am skeptical that, the existing modular could really prepare students for their future employment. To be more frank, it didn't make any visible difference in their future employment and career.

The chi-square showed that, positive views were reflected. According to different authorities, Goldschimd (1972),Postewait and Russell (1971), independent study in modular teaching promotes self-confidence of students and paves that way for lifelong process. The finding was also consistent with Solomon aet.al (2011), that modules in modular instructions potentially could prepare students for their future employment and career.

4.2.7 Modular curriculum and block mode of Delivery

Policy of graduate program of AAU (602, 2009) stipulates, that the delivery of modules should involve three distinct learning activities, interactive teaching learning (40%) self-learning (40) and collaborative learning (20%), of the students work load. With respect to the above rule and policy frame work, an attempt was made to examine the respondent's reflection towards the practice of modular curriculum mode of delivery.

Table-8: shows the respondents attitude towards the modular master's curricula mode of delivery.

No	Item	Scale	Respondents'				Column percentages		$\chi 2$ Test value (df= 3)	P Value
			Students (N=53)		Instructors (N=25)		STs	INs		
			O	E	O	E	%	%		
1	The delivery of modular curriculum in terms of interactive teaching–learning, self and collaborative learning is appropriate to utilize a Varity of media and methods.	SA	0	1.4	2	0.6	0	8	5.495	0.139
		A	36	36.7	18	17.3	67.9	72		
		UD.	6	4.8	1	2.2	11.3	4		
		DA	11	10.2	4	4.8	20.8	16		
2	The courses/ organized as modules in the existing master's program has impact on the delivery and engagement of student's on learning	SA	7	6.8	3	3.2	13.2	12	0.643	0.857
		A	40	39.4	18	18.6	75.5	72		
		UD.	2	2.7	2	1.3	3.8	8		
		DA	4	4.1	2	1.9	7.5	8		
3	The delivery of the existing modular maser's curricula in terms of interactive teaching, self- learning and collaborative learning enhances an efficient use of time and resource	SA	8	8.8	5	4.2	15.1	20	0.315	0.951
		A	32	31.3	14	14.7	60.4	56		
		UD	4	4.1	2	1.9	7.5	8		
		DA	9	8.8	4	4.2	12	16		
4	As part of the modular master's program, I have adequate knowledge about modular curriculum and its mode of delivery	SA	0	5.4	8	2.6	0	32	34.075	0.00
		A	6	9.5	8	4.5	11.3	32		
		UD	5	6.8	5	3.2	9.4	20		
		DA	27	20.4	3	9.6	50.9	12		
		SD	15	10.9	1	5.1	23.3	4		
5	The division of modular curriculum in the existing master program in to interactive teaching-learning, helped me to provide continuous feedback to students on their performance	SA	2	2.0	1	1.0	3.8	4	4.214	0.378
		A	16	19.0	12	9.0	30.2	48		
		UD	8	8.8	5	4.2	15.1	20		
		DA	25	21.7	7	10.3	47.2	2.8		
		SD	2	1.4	0	0.6	3.8	0		

Significant at 0.05, p<0.05

The finding on the practice of modular instruction mode of delivery was summarized in table 8. It was revealed that, there is no statistically significant opinion difference between the two groups for items, Nol. 1, 2, 3 and 5

The chi-square test obtained indicated that, (P>0.05) for the above items. This shows that, there is no significant opinion difference between the two groups. This suggests that the respondent view on the practice supports the statement in each item as positively practiced activities. Besides the above scenario, however, statistically significant opinion difference was observed only for item no. 4

The chi-square fast obtained showed that, statistically significance opinion difference between the two of groups. ($\chi 2$ = 34 .075, P < 0.05) with regard to respondents knowledge about modular curriculum and its mode of delivery. It was examined that about 64% of instructors had adequate knowledge and awareness on modular instruction and its mod of delivery.

Surprisingly, on the contrary about of 74.2% of students were not clear on modular curriculum and its block mode of delivery, on the other hand, 20% of teaches and 9.4% students wore not certain about modular curriculum and its mode of delivery.

This implies that concept and principle of modular curriculum and its mode of delivery were not clear.

This finding indicates that, modules in the master's program were not fully delivered as per the guideline.

In this regard, Rhumus (2005) revealed that, teaching learning strategy must be elicited on the basis of mode of presentation of the module since the presentation pattern or mode enable students to obtain the

learning outcomes. This implies block mode curriculum delivery was conceptualized negatively by majority of respondents'. This might be the fact that, some modular courses were still delivered through traditional teacher-centered approach. Solomon *et.al* (2011) research result also favors the finding.

4.2.8 Modular curriculum and its impact on tertiary level teaching and research

Table 9- shows respondents opinion towards the appropriations of modular instruction for tertiary level teaching and research.

No	Item	Scale	**Respondents'**				**Total Column %**		**χ2 Test value (df=3)**	**P Value**
			Students (N=53)		**Instructors (N=25)**		**STs**	**INs**		
			O	E	O	E	%	%		
1	The current modular approach is appropriate to prepare candidates for tertiary level teaching and research.	SA	4	4.1	2	1.9	3.5	8	**17.693**	**0.001**
		A	45	39.4	18	18.6	84.9	52		
		UD.	0	4.8	7	2.2	0	28		
		DA	4	4.8	12	2.2	7.5	12		

Significant at 0.05, p<0.05

As it is indicated in table 9, statistically significant opinion different between the two groups was observed. About 92.4 % of students suggested positive view and support to the statement or argument. However about 60% of instructors showed negative view towards the statement or argument.

The chi-square test inferred that, there is statistically significant opinion difference between the two groups ($\chi 2 = 17.695$, $P < 0.05$).

This didn't imply that, the majority of instructors possess either extreme negative or hostile view on its appropriateness for tertiary level

teaching and research. It only implies that a significant portion of instructors are not yet convinced that modular approach could really is appropriate to prepare candidates for tertiary level teaching and research. Besides this, a few portions of the academic staff were not sure whether or not the modular approach is successful in preparing students for tertiary level teaching and research. Solomon et.al (2011) supports the above finding.

An interviewee from the school of graduate studies was optimistic on the potential modular approach to produce competent graduates. He said that, what is going on the ground was quite different from as it was original intended. He said the following:

> We do have clear and achievable graduate program policy emerged out as a result of wider BPR since 2009/10.Following this, procedure for the master's program process of modulation and block teaching was disseminated to all departments to modularize the curricula as per the guideline, but the practice gradually encountered strong résistance, reluctance and low commitment from frontline implementers to address the basic purpose modularization. In such a setting, I'm afraid that graduates were competent enough for tertiary level teaching and research.

4.2.9 Respondents view and reflections on the practices of modular curriculum design, development and delivery.

The business process reengineering of the teaching and learning process of AAU stipulates that, all academic programs running master's program to modularized and deliver their curricula via block teaching mode. Furthermore, the modules should be divided in to three general parts vis-à-vis, independent, interactive and collaborative learning (AAU, 2009a),based on the above stated frame work a procedure manual for modularization and block teaching has been prepared and disseminated to all college /schools and institutes

Table10: shows respondents view and reflections on the practices of modular curriculum design, development and delivery.

No	Item	Response	Respondents'				Total column %		χ^2 Test value (df=2)	P Value
			Students (N=53)		Instructors (N=25)		ST	IN		
			O	E	O	E	F	%		
1	The contents of the module/course delivered at master's program are brief and to the point.	Yes	29	32.6	19	15.4	54.7	76		
		No	24	20.4	6	9.6	45.3	24		
2	My module/ course at Master's program are :									
	a. Developed empirically	Yes	10	12.9	9	6.1	18.9	31	2.706	0.10
		No	43	40.9	16	18.9	81.1	64		
	b. Revised and Updated	Yes	11	15.6	12	14	20.8	48	6.065	0.014
		No	42	37.4	13	7.6	79.2	52		
3	In the current modular master's program modules are designed as a chapter of book with learning activities added	Yes	37	36	16	17	69.8	64	0.263	0.608
		No	16	17	9	8	30.2	36		
4	The content of pedagogy module delivered at the current master's program need subject bench mark requirements	yes	47	44.8	19	21.2	88.74	76	2.098	0.148
		No	6	8,2	6	3.8	11.3	24		
5	The reading materials of my module are fully in line with the objective of the module/ course	Yes	30	34.7	21	16.3	56.6	84	5.63	0.018
		No	23	18.3	4	8.7	43.4	16		
6	My module/course delivery at maser's program are systematically divided in to interactive teaching- learning, self and collaborative learning.	Yes	43	45.6	22	21.4	84.3	88	0.184	0.668
		No	8	7.4	3	3.6	15.7	12		
7	Students are divided in small group for collaborative learning to undertook group discussion and assignments under my facilitation (20% to the module)	yes	39	41.4	22	19.6	73.6	88	2.07	0.150
		No	14	11.6	3	5.4	26.4	12		
8	I always cover the module properly on time	Yes	16	23.8	19	11.2	30.2	76	14.41	0.00
		No	37	29.1	6	13.8	69.9	24		

- ***Significant at 0.05, $p<0.05$***

Table 10 above shows, whether the respondents view on the practice of modular curriculum delivery was observed to have followed the guidelines stipulated by school of graduate studies.

As it is indicated in table 10, the distribution of opinion preference between students on one hand and instructors on the other hand was compared and its significance tests all using chi-square.

It has been observed that, the distribution of preference was statistically significant opinion difference between two independent groups was investigated for items no. 2 and 8, which suggests whether modules are developed empirically updated and revised. The other item (No. 8) elicited whether modules are covered properly in line with the modular schedule.

About of 79.2% of students' and 50% of instructors' indicated negative views regarding the revision of modules. The chi-square test showed that there is statistically significant opinion difference between the two groups ($\chi 2$ =6.065). This implies that, they had relatively negative view on the practice of modular revision. It is pretty clear that, graduate policy of AAU (602, 2009) recommended that modules should be revised and updated every three year.

The finding indicated that, the practice of modular revision was not consistent with the policy and its attendant rules and regulations. Similarly significant opinion difference was investigated between the two groups modular whether instructors cover modules properly in line with module schedule. The chi-square test showed ($\chi 2 = 14.41$, $p < 0.05$) significant negative opinion between two groups. This implies that, there were a consistent gap between attitude and role. This gap of opinion difference might possibly be due to the degree to which people were not in touch with the information and details about modular

design and development. Generally the way most respondents reacted to their views on the practice of modular curriculum related questions showed that views towards modular curricula were positive. This is a reflection of the picture that they have better aware of the implementation procedure of modular curricula. The above finding was consistent with Romizowski (1984) finding.

4.1.10. Attitude of respondents towards Modular Master's Program

As it is shown in Table11 below, the attitude of respondents towards Modular masters curriculum was compared based on the distribution of response. It was found that, there was no statistically significant opinion difference between the two groups. This implies that, the respondents' attitude being non-significant supports to the argument stated in each item

The Chi-square test also showed that, there was no statistically significant opinion difference between two groups for each item (P>0.05). The Implication of the above finding reveled that, respondents have showed positive attitude towards the issues raised Even though, the finding showed positive agreement it is not consistent with the policy, rules and regulation of the modular master's program of AAU .This indicates there was policy gaps intended to be amended**.**

Table 11: below Shows, respondents' attitude to words modular master's program of AAU

No	Item	Scale	Respondents'				Total column %		$\chi 2$ (df(=3)	P Value
			Students (N=53)		Instructors (N=25)		STs	INs		
			O	E	O	E	%	%		
1	The modular course being thought at master's level have relevance to the national and international requirements.	SA	6	4.8	1	2.5	11.3	4	3.308	0.346
		A	25	20.5	17	13.5	47.2	68		
		UD.	11	10.2	4	4.8	20.8	16		
		DA	11	9.5	3	4.5	20.8	12		
2	In the current master's modular curriculum research work (writing thesis) must be obligation as a requirement for graduation	SA	25	23.1	9	10.9	47.1	36	12.323	0.015
		A	27	28.8	9	11.2	50.9	36		
		UD.	0	2.7	4	1.3	0	16		
		DA	1	2.4	2	1.3	0	16		
		SD	0	0.6	1	0.4	0	4		
3	The existing modular master's program has been put in to action with the intention of shortening the program duration	SA	7	7.5	4	3.5	13.2	16	1.314	0.859
		A	27	27.8	13	11.4	45	52		
		UD.	6	5.4	2	2.6	11.3	8		
		DA	14	12.9	6	6.1	26.4	20		
		SD	4	3.4	1	1.6	7.5	4		
4	The duration of the existing modular master's program maximum 18 months needs enhanced	SA	19	14.3	2	6.7	35.8	8	8.537	0.074
		A	12	12.2	6	5.8	22.6	24		
		UD.	4	6.1	5	2.9	7.5	20		
		DA	15	17.7	11	8.3	20.3	44		
		SD	3	2.7	1	1.3	5.7	4		

- ***Significant at 0.05<P***

4.2.11. Respondents view on the practice of workload allocation in the existing modular master's Curricula

Documented data showed that the work load of a module/Course unit is allocated based on the total amount of learning activities, a student is expected to complete in order to achieve for learning out comes. It is measured in time (work hours)

The following table presents the distribution of opinion preference gathered for respondents under study concerning their views regarding the allocation of work load in terms of ECTS to components of learning in the existing modular master's program

According to Table 12 below, the distribution Preference was significantly differ between two groups for item numbers, 5 and 6 which were concerned with the knowledge and principles of designing credits interims of ECTS and work load allocation in the existing modular master's program.

Simple Observation of the percentage with all groups indicated that, respondents differ significantly (Chi-square =1.223, P< 0.05).

The European Union ECTS user's guide (2006) clearly elucidates that, credits are allocated to entire qualification or study programs as well as to their educational components is based on its weight in terms of the work load student's need in order to achieve learning outcomes in a formal context. However the finding revealed that significant proportion of students and instructors were hardly aware of the principle of designing work load to educational components

Table12. Shows respondents view on the practice of work load allocation to educational components.

No	Item	Responses	Respondents' Responses				Total column %		χ^2 Test value (df=1)	P Value
			Students (N=53)		Instructors (N=25)		students	instructors		
			O	E	O	E	%	%		
1	In the existing modular master's program credit are allocated to educational components of a study program based on the volume of work each component requires to achieve its learning outcome	Yes	36	38.7	18	17.3	67.9	72	**0.123**	**0.716**
		No	17	16.3	7	7.7	32.1	28		
2	The overall responsibility for the design of the program of studies and the number of credits allocated to modular or courses lies on module team of each department.	Yes	43	43.5	21	20.5	81.1	84	**0.095**	**0.758**
		No	10	9.5	4	4.5	18.9	16		
3	In my department/ program the work load of students expressed matches with the number of credits available for the module/course unit	yes	42	42.8	21	20.2	66.7	84	**0.247**	**0.619**
		No	11	10.2	4	4.8	20.8	16		
4	In the existing current modular master's program the work load of instructors is determined with considering academic rank	Yes	27	26.5	12	12.5	50.9	48	**0.059**	**0.808**
		No	26	26.5	13	12.5	49,1	52		
5	The existing modular curriculum of Master's program is designed based on student's work load	Yes	37	34.9	15	7.1	72.5	60	**1.223**	**0.025**
		No	16	16.1	10	7.9	27.5	40		
6	In the existing modularized master's program the concept and development European credit transfer and accumulation system (ECTS) is clear	Yes	16	22.4	17	16.6	30.2	68	**9.950**	**0.002**
		No	37	30.6	8	14.4	69.8	32		

.

This implies that, credits hours were allocated to educational components in terms on contact hours other than students work load Another variable treated in the study was item 6, where statistically significant opinion difference showed regarding to their level of awareness on the concept and development of ECTS in the existing modular master's program ($\chi 2=9.95, P<0.05$).

Documented data indicated that ECTS is a learner-center system for credit accumulation and transfer based on the transparency of learning out come and learning activities. However, the finding indicated that, respondents didn't realize the concept and developments ECTS.

This implies that, credits were allocated to learning activities in terms of contact hours.

4.2.12 Respondents view on the practice of modular curriculum assessment and evaluation strategy

Different research results indicated that, the modular approach has a potential advantage to change assessment tradition in to competency based and continuous assessment strategies

Table 13 below shows respondents views on the practice of modular curriculum assessment and evaluation strategy in the existing modular master's program

According to the data summarized in Table 13, an attempt was made to examine weather opinion difference on the practice of assessment and evaluation strategy in the existing modular master's program exists or not

Table: 13. Respondents view on the practice of modular curriculum assessment and evolution strategy

No	Item	Scale	Respondents'				Total column %		χ2 Test value (df=3)	P Value
			Students (N=53)		Instructors (N=25)		St	In		
			O	E	O	E	%	%		
1	In master's program Instructors' were Usually conditioned by the normative (norm referenced) approach of assessment to the 33% passing grade	SA	26	17.7	0	0.3	49.1	0	31.470	0.00
		A	23	22.1	11	10.9	23.1			
		UD.	2	8.8	11	4.2	3.8	44		
		DA	2	2,7	2	1.3	3.8	8		
		SD	0	0.7	1	1.3	0	4		
2	Students are well equipped to undertake the submission of assessments assignments at its due time.	SA	4	2.7	0	1.3	7.5	0	5.061	0.167
		A	35	32.6	13	15.4	66	52		
		UD.	2	2	1	1	3.8	4		
		DA	12	15.6	11	7.4	22.6	44		
		A	15	21.6	2	5.4	26.3	8		
		UD	2	4.1	2	3.8	3.8	16		
		DA	21	27.2	19	12.8	39.6	76		
		SD	2	1.4	0	0.6	3.8	0		
3	**The existing master's program the examination system emphasized on:**									
	a. Rote learning	SA	13	12.8	0	2	24.5	0	17.972	0.001
		A	15	21.6	2	5.4	26.3	8		
		UN	2	4.1	2	3.8	3.8	16.5		
		DA	21	27.2	19	12.8	39.6	76		
		SD	2	1.4	0	0.6	3.8	0		
	b., Conceptual understanding	SA	2	2	1	0.3	3.8	8	19.685	0.004
		A	21	27.9	20	13.1	39.6	80		
		UN	0	1.4	2	6	0	8		
		DA	17	12.9	2	6.1	32.1	8		
		SD	13	8.8	0	4.4	24.5	0		
5	In the existing modular master's program the learner is assessed immediately on completion of each module.		-	-	-	-	-	-	3.388	0.336
		A	29	31.9	18	15.1	54.7	72		
		UD	4	4.1	2	1.9	7.5	8		
		DA	16	14.3	5	6.7	30.2	20		
		SD	4	2.7	0	1.3	7.5	0		

Significant at 0.05, <P

As shown in table-13 above, statistically significant opinion difference exists for items 1, 4, and 5. In the other way round, there is no statistically significant difference in the views of all groups for the remaining items. This shows that the argument on the issue was positive.

With regard to the assessment strategy a comparison among the distribution of preference between two groups was made using chi-square test to cheek for statistical significance. It has been found that about 72% of students and 44% instructions believe that the assessment strategy is norm-referenced. It is sad that about 44% of instructors" did felt that, they are not certain about the assessment strategy. This implies that, grades were assessed according to class norms.

According to Farooq (1997) ,effective module utilize a system of student assessment which requires mastery of objectives, means achievements of a pre-set standard is judged by criterion-referenced assessment strategy.

The above finding was not consistent with Farooq (1997). This implies that assessments strategy was both criterion and norm-referenced in the existing modular master's program. The chi-square test showed that there was significant opinion difference between the two groups (chi-square =31.470, $p<0.05$).Regarding the examination system, a comparison among the preference or distribution on rote learning and conceptual understanding showed significant Opinion difference. The chi-square test showed, a statistically significant opinion difference on the practice of examination strategy (chi-square =17.972 $p<0.05$).

In addition to the above fact, the distribution of respondent preference on conceptual Understanding showed statistically significant opinion

difference (chi-square=19.683, $p<0.05$). This showed that, the examination system of the existing master's curricula was not on the principles of conceptual understanding.

This implies that, the examination systems were only theory oriented and didn't evaluate competency of student's conceptual know-how.

Solomon *et.al* (2011) research result indicated similar finding.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter deals with the summary of major findings of the study, the conclusion drawn upon the major findings and recommendations that are based on the conclusions arrived at.

5.1. Summary

This study was conducted aiming at assessing the practices and challenges of Modular master's program of Addis Ababa University. To do so; the following specific objectives were set:

1. To explore the major challenges and constraints experienced while running master's Program of Addis, Ababa University

2. To highlight the weaknesses and strengths of modular master's program in Addis Ababa University.

3. To explore the contributions modular instruction to produce an innovative and efficient graduates

4. To assess the attitude of students and instructors towards the modular curricula and block teaching mode of delivery

5. To give suggestions and workable recommendations necessary for the improvement of the program in the future

The following basic questions were the corner stones to obtain the necessary information.

1. What are the major Challenges experienced while running modular master's programs of Addis, Ababa University?
2. What are the major strengths and weaknesses of the existing modular master's program of Addis Ababa University?
3. What are the attitude of students' and instructors' towards the modular curricula and block teaching mode of delivery?

Taking the fact that, introducing new harmonized curriculums university academic programs is difficult and full of risks, examining the practice and challenges of some study programs can significantly help the institutions themselves and/or other concerned bodies to compare what should be done in principle and what actually is happening in the field.

In an attempt to answer the above basic research questions, a descriptive survey method was preferred to serve the purpose. Data were gathered using questionnaires developed based on the review of the related literature. Interviews that were held with modular curriculum designers, policy makers and implementers or their representatives, activities were also instruments used to gather data. Out of 99 questionnaire papers distributed 78 (78.78%) were filled out and returned. The data gathered were analyzed using frequency counts, percentages, and the Chi- square Test to verify whether there were significant differences in the distribution of responses between or among the respondents of the college under study. The major findings of the study were summarized as follows:

5.2 Characteristics of Respondents

Two groups of respondents, final year master's program Students, on one hand and master's program instructors on the other hand, were approached from all departments running master's program in collage of education and behavioral studies to fill the questionnaires prepared for the study purpose. The information from the participants of this study indicates that there were no female instructors .This shows that, there is a problem of gender mix up in the sample collage, though it is believed that the presence of female instructors serves as a role model for female students. It was also observed that, about 72% of instructors have PhD and 28% were master's degree with academic rank of minimum assistant professor. This shows that instructors are qualified

for the level. The implication is that the more the instructors are qualified and experienced the better they are at identifying problems in modular curriculum and mode of delivery.

Moreover form three departments of the collage 84.9 % were male students and 15.1% were female graduating class students. It was also observed that ,the proportion of female students limited .This indicates that, problem of female participation in higher education was a confounding challenge.

A total of 99 questionnaire copies were distributed to respondents in the collage. Only 78(78.78 %) were filled and returned, of which 53 (80.30%) were students and 25 (75.75%) were instructors.(table2)

5.3 Views and attitudes of respondents' towards Main features of modular curriculum and its mode of delivery

Concerning the purpose of Modular master's program

a. No significant, opinion difference was not expected between respondents', response on the purposes listed. Global experience of recent study on learning was given high priority by more than 64.1% of the respondents. (About 64.4 % of students and 72 % of instructor's.)
b. significant difference was observed in perception of the purposes of modular master's program between respondents as evidenced by the Chi-square test, Customers need and expectation of competent graduates, External stakeholders (Government and, Funding agents) need and pressure, Wide spread pressure of government reform especially from Ministry of education and Complain of employers of Ethiopian graduates that they lack abilities on practical application and problem solving were perceived negatively as basic purpose to initiate modular master' program(table.3) However, about 84.9% of students and 70.6% instructors rated high priority to Complain of employers of

Ethiopian graduates that they lack abilities on practical application and problem solving and Wide spread pressure of government reform especially from Ministry of education .(Table3)

Objectives in the existing modular master's program

a. Regarding modular objectives, both groups agreed that, modular objectives were achievable taking in account, the ability of students, time constraints and desired out comes.
b. The extent of achievability indicated that, desired outcomes (73.1%) time constraints (60.3%) and ability of students (57.7%) were rated by respondents
c. Statistically significant difference was not observed in the distribution of preferences between students and instructors .A non-parametric Chi-square test showed that desired out comes were better achieved (table.4)

Concerning Physical and academic facilities

a. It was found that, there was inconsistency between respondents" responses in the physical and academic facilities. It was analyzed that, physical facilities such as classrooms, furniture's, audio visual aids etc. and some library facilities were generally insufficient in the existing master's program.
b. Statistically significant opinion difference was observed between respondents" response. Chi-square test indicated that, physical and academic facilities in the existing master's program were negatively addressed.
c. It has been also observed that, instructors were academically and professionally sound.(table5)

Regarding the potential of Modular program in creating out of class room activities

a. Concerning the potential and appropriateness of master's modular program in creating out of class room activities. It was found that, there was inconsistency in respondents' response on the issue raised. It was analyzed that, the respondents' believed that, the proportion was too much and dominated by nominal out of class room activities in the existing master's program.

   The chi-square test showed that, there was not statistically significant opinion difference between the two groups implied that positive view was reflected on the argument or their view suggests a support on the issue raised. (Table: 6)

Concerning the practice of modular curriculum mode of delivery

a. It was observed that, the majority respondents' attitude suggests positive agreement concerning the practice of modular curriculum mode of delivery.
b. Statistically significance opinion difference between two groups ($\chi 2=34.075$, $p<0.05$) was found on their level awareness and knowledge of block mode of delivery. It was investigated that, about 64% of instructors had adequate knowledge and awareness about modular instruction. On the other hand about 74.2% of students were not clear about block mode of curriculum delivery.(table:7)

Concerning self-learning (Independent learning)

a. It was observed that, there was inconsistency between respondents' responses that the capacity and appropriateness of modular curriculum develop skill and capacity to go through modular courses independently and to enhance their critical thinking as well as to integrate theory and practice found poor.

b. The chi-square test also confirmed that, there were statistically opinion difference between the two groups indicated that their disagreements on the argument raised (table:8)

Concerning the capacity of modular curriculum in preparing students for their future employment.

a. It was analyzed that, there was inconsistency in their opinion between the respondents" responses on the potential of modular curriculum to prepare students for their future employment and promotes candidates to develop self-confidence
b. The chi-square test confirmed that, about 79.8% of students and 64% of instructors believed that modular curriculum has the capacity to enhance competency so as to prepare students for their future employment.(table:9).

Concerning respondents' opinion towards the potential of modular instruction in preparing candidates for tertiary level teaching and research.

a. It was found that, inconsistency between respondents' responses was examined. It was analyzed that about 92.4% of students suggested positive agreement and believed that modular curriculum has the potential to prepare students for tertiary level teaching and research. However, about 60% of instructors' believed that modules delivered at the master's program were not appropriate to prepare candidates for tertiary level teaching and research.
b. Chi-square test revealed that, there was statistically significant opinion difference between the two groups ($\chi 2=17.693, p<0.05$) table:10

Concerning respondents' views and reflections on the practice of modular curriculum design, development and delivery.

a. It was found that, there was inconsistency between respondents" responses. It was analyzed that about 79.2 % of students and 52% of instructors believed that modules in the master's curricula were not revised, contents of modules was infrequently updated according to the need.
b. It was also found that, statistically significant opinion difference between the two groups on the issue the appropriateness modular schedule to cover modules properly on time by the instructor. It was analyzed that 69.9% students and 24% of instructors believed that modules were not covered properly on time as per module schedule.(table:11)

Regarding respondents' attitude towards modular master's program

a. It was revealed that the majority of respondents' attitude towards the master's modular program was found negative. It was analyzed that about 88% of students and 72% of instructors believed that thesis writing must be an obligation as a requirement for graduation.
b. It was also found that, about 58.4% of students and 52% of instructors claimed that the duration of the existing master's program needs to be enhanced (increased). (table:12)

Concerning respondents'' view on the practice of work load allocation in the existing master's program

It was examined that, the distribution of preference was statistically significant difference between the two groups on the knowledge and principle of designing credits in terms of ECTS and workload allocation. It was analyzed that:

a. The majority of respondents' believed that credits were allocated to educational components in terms of contact hours other than student work loads
b. The level of awareness on the concept and development of ECTS were found poor.
c. Simple observation of the percentage between groups indicated that respondents differ significantly in their views.($\chi 2=1.223, p<0.05$) table:13

Concerning assessment strategy.

With regard to the assessment strategy comparison among the distribution of preference between the two groups .It was analyzed that:

a. About 72% of students and 44% of instructors believed that the assessment strategy was norm-referenced.
b. It is sad that about 44% of instructors did felt that, they were reluctant or not certain about their assessment strategy.(table14)

Regarding major Challenges experienced while running the modular master's program

Qualitative and interview results indicated major challenges experienced while running the master's program were listed below;

1. Resistance (students, instructors and leadership)
2. Lack of experience for the approach
3. Low commitment
4. Absence of best practice(bench mark)
5. Alignment problems with the job market
6. Poor student's academic background leading to problem when starting modularized curricula
7. Poor planning
8. Lack of course material

Strengths (positive) and weaknesses (negative) findings

Quantitative and interview result indicated the key positive and negative findings. It is possible to summarize the key clear findings by looking at areas where the general trend were positive and areas where the general trend were negative. This are summarized in Tables 14 and 15.

Table 14.shows the key areas where there are positive views (strengths)

Finding	***Table***
Purpose of modularization were clear only for e few of instructors'	2
Physical facilities generally fine	4
The course objectives were clear and achievable	4
Modular curriculum and block mode of delivery practice generally fine	6,7,8,9
Modules/ course development fine	
Instructors' are qualified for the level and their professional competence, fine	2,8

The most positive areas related to the practical and technical skill of modular course delivery were there is far degree of satisfaction. However the list of areas where attitudes and, views tend to be negative is longer and more serious in nature. Clearly, there was a large measure of dissatisfaction and this were reflected in the data table 8.10, 11 and 12

Table 15.Shows the key areas where there are negative views (weaknesses*)*

Finding	*Table*
Purpose of modularization were not clear for e majority	2
course not covered in time	10
Lack of training on modular curriculum and its mode of delivery	8
Course does not use appropriate variety of teaching methods	8
Research work, which seems not obligatory, was questioned	11
The duration of master's program found short for the majority	11
Resource facilities (e.g. libraries, course materials) not always up to standard	3
Problems over curriculum revisions, and, course revisions	10
The content of pedagogy course needs subject bench mark requirements	10
The appropriateness Master's curricula for successful tertiary level teaching and research was questioned for the majority	9
Assessment strategy found poor	12
Curricula was dominated by nominal out of class room activities	5
The concept and development of ECTS generally poor	13

5.4. Conclusion

In light of the above findings of the study, the following conclusion can be stated. As a result of the wider Business Process Reengineering that AAU has introduced a radical change in the teaching and learning process of its master's program since 2009/10 involves comprehensive changes not only to teaching and learning processes, but also to management and support structures; to people, to technology and infrastructure; and even to policies and regulations. Thus, this process of change should be managed properly and carefully. The study had finally come up with the following conclusions:

a. Most respondents were not clear with the purposes; not aware of the principles, policy guide lines, teaching and learning strategies, as well as the benefits of modular approach. The effort exerted to conduct

trainings to introduce implementation strategies or to show the features of the new world of teaching-learning was not satisfactory.

b. Successful change in the institution requires developing positive attitudes in advance towards it. However, it was found out that the attempt made to address the concerns and problems of people or to change their mindsets were not enough as far as modular master's program is concerned. The quantitative and qualitative analysis showed that, respondents largely showed positive attitudes on major components of modular approach. However, significantly large proportion of respondents' has negative views on a few but detrimental practices of modular course planning, development and delivery. This clearly indicated that, the existing modular master's program faced reluctance and lack commitment on the part of instructors and luck competence to grasp modular curriculum and its mode of delivery on the part of students. The source of this could be lack of understanding of the new system.
c. The graduate program policy and its attendant rules and regulations elucidates that, the assumptions modular approach in the existing master's program was to bring about major paradigm shift in the educational philosophy is that, the instructor is a facilitator and guide students towards the achievement of learning outcomes, assessment is continuous and based on mastery, credits in terms of ECTS should be allocated based on student work load. However research finding showed that there is no a move away from the traditional approach that, the practice instructors did was they are still cover everything by themselves (teacher-centered) as well as assessments strategy was not based on mastery but according to class norms and credits were allocated to educational components based on contact hours.
d. On the basis the analysis of data regarding the open ended items of the questionnaire the following conclusion were drawn

- Resistance from(Staff, leadership and students)
- Lack of experience for the approach
- Low commitment
- Absence of best practice
- Poor students' academic background, leading to problem when starting modularized curriculum and Poor planning

5.5 Recommendations

Based up on the above conclusion of the study, the following recommendations were made to enhance the institution's ability to more effectively uphold their efforts.

1. **Organizing visionary workshops and trainings-** It is crystal clear that, Introducing new teaching and learning philosophy, approach, and strategy to educational institutions requires a fundamental change in organizational structures, work cultures and mindsets of people to admit change it. Without this, it becomes difficult to change processes to the desired qualities. Hence a series of visionary workshops should be organized to clearly show the necessity of the new curriculum to all stakeholders the institution to provide a constant flow of information throughout the institution regarding the expectations, the successes, the progress, challenges', negative and positive sides.

   This helps that instructors and students will be more convinced and committed to change their attitude with negative disposition towards modular program and block teaching in particular.
2. **Resource facilities**: Shortage of necessary resources, the study has revealed basic physical and academic facility problems which need immediate attention of the concerned authorities.
3. **Tertiary level teaching and research**: The study revealed that, the majority of respondents have negative attitude towards the appropriateness of the existing modular approach to prepare students

for tertiary level teaching and research. Hence the concerned body should include one additional quantitative research method module for all masters' curricula in AAU to enhance tertiary level research.

4. **Thesis writing**: Founded on research finding, research work (thesis writing) must be an obligation as a requirement for graduation.
5. **Duration of modular program**: It has been revealed that, the intention of modular master's program was not shortening the program duration, most respondents felt that the program duration maximum 18 months needs to be enhanced (increased) to 2 years to increase mastery and competency of learners.
6. **Assessment schedule**: The research result indicated that, learners were not assessed right on completion of the module. This could lead students forget what they knew, understands and be able to do at the end of learning experience. Hence learners must be assessed immediately up on completion of each module to increase mastery of learning out comes and avoid unnecessary work load on students.
7. **Establish resource and help centers**- AAU in general and collage of education and behavioral studies in particular should establish an institutional level resource center that can serve as a point of dissemination of modular approach best practices, facilitating expert advisory services, and a repository of publications and related case studies of successful modular master's program implementations.
8. **Establish institutional internal quality assurance department**: to examine whether the masters modular program was run as per the guidelines and procedure the institution should establish internal quality assurance department for the development and publication of explicit intended learning outcomes and to give due attention to curriculum and program design and content.

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Annex A

Addis Ababa University
School of Graduate Studies

College of Education And Behavioral Studies
Institute of Educational Research

An Assessment of the practices and challenges of Modular Master's program of Addis Ababa University

This questionnaire is designed to gather information on the practices and Challenges of Modular Master's program of Addis Ababa University. The information gathered from the field and document review will have a paramount importance to draw lessons from the exercise.

The purpose of the study is purely academic that will have no any negative effect on you as an individual or on your organization. The effectiveness of the study depends on your genuine and frank response which will be kept confidential I, therefore, request you to fill the questionnaire honestly and responsibly.

N.B.

- No need to write your name
- Please mark your response as per the instruction given
- For those questions requiring your opinion, use the space provided

Thank you in advance for your cooperation!!

Gizat Mokonnen

ANNNEX A

ANNEX AAN ASSESEMENT OF THE PRACTICES AND CHALLENGES OF MODULAR MASTER'S PROGRAMM OF ADDIS ABEBA UNIVERSITY

Questionnaire for Instructors

Section I Personal Information

College – College of Education and Behavioral Studies

Department_____

II Qualification and Academic rank -Please tick one

MA/MSC_____ Assistant Prof. _____ Associate Prof._____

PhD _____ Professor _____ Others_____

Sex **-** Male_____ Female_____

Section II. Information about Modular Master's Program practices and challenges.

1. Which of the following, in your opinion is the purpose why Modular Master's program is initiated in Addis Ababa University? Please rate them in terms of priority.

1. For low 2. For Medium 3.For High priority

No	Purpose	Rating Scale		
		1	2	3
1	Customers need and expectation of competent graduates			
2	External stalk holders (Government and, Funding agents) need and pressure			
3	Wide spread pressure of government reform especially from Ministry of education			
4	Complain of employers of Ethiopian graduates that they lack abilities on practical application and problem solving			
5	Global experience of recent study on learning			

Note: please underline or encircle the relevant response		
Objectives		
1. The objectives given in the existing Master's Modular curricula are attainable taking in to account:		
	A. The ability of students	Yes/No
	B. Time constraints	Yes /No
	C. Desired out comes.	Yes /No
Academic and Physical facilities		
1. Physical facilities are adequate for successful teaching and learning process.		Yes /No
2. Teaching- learning facilities are available throughout :		
	A. The day	Yes /No
	B. In the evening.	Yes /No
3. Latest book/ journals are available in the library		Yes /No
4. Class rooms are large enough for proper utilization of audio visual aids		Yes /No
5. On line sufficient research/ internet facilities are available in the library		Yes /No
6. Instructors who teach in the current modular master's program are professionally sound		Yes /No
7. Instructors who teach in the current modular master's program are academically sound.		Yes /No

Modular curriculum- independent learning					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. My Modules/ courses are designed as self-instructional units for independent study.	**SA**	**A**	**UD**	**DA**	**SD**
2. The information given in My modules/course are enough for independent learning	**SA**	**A**	**UD**	**DA**	**SD**

3. The modular master's curricula help student's to develop capacity for independent learning and critical thinking	**SA**	**A**	**UD**	**DA**	**SD**
4. The modular master's curricula integrate theory and practice for a learner to precede each practical work by appropriate theoretical explanation.	**SA**	**A**	**UD**	**DA**	**SD**

Modular curricula - Future employment, problem solving and personal development					
Note: please underline or encircle the relevant response					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
1. Modules/courses offered potentially could prepare students for their future employment and career.	**SA**	**A**	**UD**	**DA**	**SD**
2. Modular teaching promotes self-confidence of the students and paves the way for lifelong learning.	**SA**	**A**	**UD**	**DA**	**SD**

Modular curricula - Mode of delivery					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. The delivery of modular curriculum in terms of interactive teaching–learning, self and collaborative learning is appropriate to utilize a Varity of media and methods.	SA	A	UN	DA	SD
2. Modular delivery of courses/ organized as modules in the existing master's program has impact on engagement of student's on learning	SA	A	UN	DA	SD
3. The current modular approach is appropriate to prepare candidates for tertiary level teaching and research.	SA	A	UN	DA	SD
4. The delivery of the existing modular maser's	SA	A	UN	DA	SD

curricula in terms of interactive teaching, self-learning and collaborative learning enhances an efficient use of time					
5. As part of the modular master's program, I have adequate knowledge about modular curriculum and its mode of delivery.	SA	A	UN	DA	SD
6. The division of modular curriculum in the existing master program in to interactive teaching- learning, helped me to provide continuous feedback to students on their performance.	SA	A	UN	DA	SD

Modular curricula- ***Appropriateness to prepare candidates for tertiary level teaching and research.***					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. The current modular approach is appropriate to prepare candidates for tertiary level teaching and research.	SA	A	UN	DA	SD

Modular Curricula - Practices on modular delivery	
Note: please underline or encircle the relevant response	
Do the following activities and procedures apply to the way you actually teach course/ modules in the master's program?	
1. The contents of the module/course delivered at master's program are brief	Yes /No
2. In the current modular master's program modules are designed as a chapter of book with learning activities added.	Yes /No
3. My module/ course at Master's program are :	

	A. Developed empirically,	Yes /No
	B. Revised and Updated	Yes /No
4. The content of pedagogy module delivered at the current master's program need subject bench mark requirements.		Yes /No
5. My module/course delivery at maser's program are systematically divided in to interactive teaching- learning, self and collaborative learning.		Yes /No
6. I always cover the module properly on time.		Yes /No

SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. The modular course being thought at master's level have relevance to the national requirements.	SA	A	UN	DA	SD
2. In the current master's modular curriculum research work (writing thesis) must be obligation as a requirement for graduation	SA	A	UN	DA	SD
3. The whole emphasis the existing master's program is on input and output format.	SA	A	UN	DA	SD
4. The existing modular master's program has been put in to action with the intention of shortening the program duration.	SA	A	UN	DA	SD
5. The duration of the existing modular master's program maximum 18 months needs to be enhanced.	SA	A	UN	DA	SD

Modular curricula- work load	
Note: please underline or encircle the relevant response	
1. In the existing modular master's program credit are allocated to educational components of a study program based on each component requires to achieve its learning outcome.	Yes /No
2. The overall responsibility for the design of the program of studies and the number of credits allocated to modular or courses lies on module team of each department.	Yes /No
3. In the existing current modular master's program the work load of instructors is determined with considering academic rank.	Yes /No
4. The existing modular curriculum of Master's program is designed based on student's work load.	Yes /No
5. In the existing modularized master's program the concept and development European credit transfer and accumulation system (ECTS) is clear.	Yes /No

Modular Curricula -Assessment and evaluation					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. I am conditioned by the normative (norm referenced) approach of assessment to the 33% passing grade.	SA	A	UN	DA	SD
2. Students are well equipped to undertake the submission of assessments assignments at its due time.	SA	A	UN	DA	SD
3. In the existing modular master's programs, proper weight is given to student's self-learning in the final assessment.	SA	A	UN	DA	SD
4. The existing modular master's program examination system emphasize on					

	a. Rote learning	SA	A	UN	DA	SD
	b. Conceptual understanding	SA	A	UN	DA	SD
5. The existing modular master's program creates more valid ways of assessing student's performance and achievement.		SA	A	UN	DA	SDA
6. In the existing modular master's program mark distribution for interactive teaching-learning, independent learning and collaborative learning is satisfactory.		SA	A	UN	DA	SD
7. In the existing modular master's program the learner is assessed immediately on completion of each module.		SA	A	UN	DA	SD

1. What are the major challenges of Modular Master's Program in relation to your department?

_____

_____

_____

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2. Any other Comment regarding Modular Master's Program

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Annex B

Addis Ababa University
School of Graduate Studies

College of Education And Behavioral Studies
Institute of Educational Research

An Assessment of the practices and challenges of Modular Master's program of
Addis Ababa University

This questionnaire is designed to gather information on the practices and Challenges of Modular Master's program of Addis Ababa University. The information gathered from the field and document review will have a paramount importance to draw lessons from the exercise.

The purpose of the study is purely academic that will have no any negative effect on you as an individual or on your organization. The effectiveness of the study depends on your genuine and frank response which will be kept confidential I, therefore, request you to fill the questionnaire honestly and responsibly.

N.B.

- No need to write your name
- Please mark your response as per the instruction given
- For those questions requiring your opinion, use the space provided

Thank you in advance for your cooperation!!

Gizat Mokonnen

ANNEX-B

AN ASSESEMENT OF THE PRACTICES AND CHALLENGES OF MODULAR

MASTER'S PROGRAMM OF ADDIS ABEBA UNIVERSITY

Questionnaire for MA Final year students

Section I Personal Information

College – *College of Education and Behavioral Studies*

1. **Department**_____ **Program**_____
2. **Sex. Female**_____ **Male**_____

Section II. Information about Modular Master's Program practices and challenges.

1. Which of the following, in your opinion is the purpose why Modular Master's program is initiated in Addis Ababa University? Please rate them in terms of priority.

1. For low 2. For Medium 3.For High priority

No	Purpose	Rating Scale		
		1	2	3
1	Customers need and expectation of competent graduates			
2	External stakeholders (Government and, Funding agents) need and pressure			
3	Wide spread pressure of government reform especially from Ministry of education			
4	Complain of employer's of Ethiopian graduates that they lack abilities on practical application and problem solving			
5	Global experience of recent study on learning			

Note: please underline or encircle the relevant response		
Objectives		
1. The objectives given in the existing Master's Modular curricula are attainable taking in to account:		
	A. The ability of students	Yes/No
	B. Time constraints	Yes /No
	C. Desired out comes.	Yes /No
Academic and Physical facilities		
1. Physical facilities are adequate for successful teaching and learning process.		Yes /No
2. Teaching- learning facilities are available throughout :		
	A. The day	Yes /No
	B. In the evening.	Yes /No
3. Latest book/ journals are available in the library		Yes /No
4. Class rooms are large enough for proper utilization of audio visual aids		Yes /No
5. On line sufficient research/ internet facilities are available in the library		Yes /No
6. Instructors who teach in the current modular master's program are professionally sound		Yes /No
7. Instructors who teach in the current modular master's program are academically sound.		Yes /No

Modular curriculum- independent learning					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. Modules/ courses, in my study program are designed as self-instructional units for independent study.	**SA**	**A**	**UD**	**DA**	**SD**
2. The information given in modules/course are enough for independent learning	**SA**	**A**	**UD**	**DA**	**SD**
3. The modular master's curricula help me to develop capacity for independent learning and critical thinking	**SA**	**A**	**UD**	**DA**	**SD**
4. The modular master's curricula integrate theory and practice for me to precede each practical work by appropriate theoretical explanation.	**SA**	**A**	**UD**	**DA**	**SD**

Modular curricula - Future employment, problem solving and personal development					
Note: please underline or encircle the relevant response					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
1. The modules/courses offered at my study program potentially could prepare me for my future employment and career.	**SA**	**A**	**UD**	**DA**	**SD**
2. I recognized that, Modular teaching promotes self-confidence for me and paves the way for lifelong learning.	**SA**	**A**	**UD**	**DA**	**SD**

Modular curricula - Mode of delivery					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. The delivery of modular curriculum in terms of interactive teaching–learning, self and collaborative learning is appropriate to utilize methods.	SA	A	UN	DA	SD
2. The delivery of courses organized as modules in my study program has impact on the engagement of student's on learning	SA	A	UN	DA	SD
3. The delivery of the existing modular maser's curricula in terms of interactive teaching, self- learning and collaborative learning enhances an efficient use of time and resource.	SA	A	UN	DA	SD
4. As part of the modular master's program, I have adequate knowledge about modular curriculum and its mode of delivery.	SA	A	UN	DA	SD
5. The division of modular curriculum in the existing master program in to interactive teaching- learning, helped me to provide continuous feedback to students on their performance.	SA	A	UN	DA	SD

Modular curricula - *Its appropriate to prepare me for tertiary level teaching and research*					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. The current modular approach is appropriate to prepare me for tertiary level teaching and research..	SA	A	UN	DA	SD

Modular Curricula - Practices on modular delivery	
Note: please underline or encircle the relevant response	
Do the following activities and procedures apply to the way you actually learn course/ modules in the master's program?	
1. The contents of the module/course delivered at master's program are brief.	Yes /No
2. In the current modular master's program modules are designed as a chapter of book with learning activities added.	Yes /No
3. My module/ course at Master's program are :	
A. Developed empirically,	Yes /No
B. Revised and Updated	Yes /No
4. The subject matter/ content of the module/course match with the outcome of the module.	Yes /No
5. The content of pedagogy module delivered at the current master's program needs subject bench mark requirements.	Yes /No
6. The reading materials of modules in my study program are fully in line with the objective of the module/ course.	Yes /No
7. My module/course delivery at maser's program are systematically divided in to interactive teaching-learning, self and collaborative learning.	Yes /No
8. The instructors always covers the module properly on time.	Yes /No

Modular curricula-Views towards the master's program of modular curriculum					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. The contents of modular courses offered at my study program have relevance to the national requirements.	SA	A	UN	DA	SD
2. In the current master's modular program research work (writing thesis) must be an obligation as a requirement for graduation	SA	A	UN	DA	SD
3. The whole emphasis the existing master's program is on input and output format.	SA	A	UN	DA	SD
4. The duration of the existing modular master's program maximum 18 months needs to be enhanced.	SA	A	UN	DA	SD

Modular curricula- work load	
Note: please underline or encircle the relevant response	
1. In my study program credit are allocated to educational components of a study program based on learning outcome.	Yes /No
2. The overall responsibility for the design of the program of studies and the number of credits allocated to modular or courses lies on module team of each department.	Yes /No
3. In my study program the work load of students expressed matches with the number of credits available for the module/course unit.	Yes /No
4. In the existing current modular master's program the work	Yes /No

load of instructors is determined with considering academic rank.	
5. The existing modular curriculum of Master's program is designed based on student's work load.	Yes /No
6. In the existing modularized master's program the concept and development European credit transfer and accumulation system (ECTS) is clear.	Yes /No

Modular Curricula -Assessment and evaluation					
SA=Strongly agree A=Agree UD=Undecided DA= Disagree SD=Strongly disagree					
Note: please underline or encircle the relevant response					
1. Assessment strategy my study program are conditioned by the normative (norm referenced) approach of assessment to the 33% passing grade.	SA	A	UN	DA	SD
2. Students are well equipped to undertake the submission of assessments assignments at its due time.	SA	A	UN	DA	SD
3. The existing modular master's program examination system emphasize on					
a. Rote learning	SA	A	UN	DA	SD
b. Conceptual understanding	SA	A	UN	DA	SD
4. In the existing modular master's program the learner is assessed immediately on completion of each module.	SA	A	UN	DA	SD

1. What are the major challenges of Modular Master's Program in relation to your department?

   _____

   _____

2. Any other Comment regarding Modular Master's Program

Annex-C

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
INSTITIUTE OF EDUCATIONA RESEARCH

Interview Guide for key Informants

1. Why modularization in Addis Ababa University? What is the rationale and Purpose?
2. Do you believe that, modular master's program has the potential in creating future job opportunity for students? How?
3. Do think that, modular instruction is appropriate in preparing candidates for tertiary level teaching and research?
4. What are the major challenges experienced while running the modular master's program?
5. What are the strengths and weakness encountered in implementing the modular program?

Thank You!!

DECLARATION

The thesis, my original work, has not been presented for a degree in any other university and that all sources of material used for the thesis have been duly acknowledged.

Gizat Mekonnen Tedla Prof.Dribissa Duffera(Advisor)

Signature_____ Signature _____