The Practices of Curriculum Development, Implementation and Evaluation in Ethiopian Defense Training Main Department

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This is to certify that the thesis prepared by Awgichew Fekade, entitled: *The Practices of Curriculum Development, Implementation and Evaluation in Ethiopian Defense Training Main Department* and submitted in partial fulfillment of the requirements for the Degree of Master of Arts (Educational Research and Development) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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ABSTRACT

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The purpose of this study is to assess the practices of curriculum development and implementation in Ethiopian Defense Training Main Department. In order to meet the objectives of the study, a descriptive survey design was employed. The data was collected using questionnaires, focus group discussion, interview guide questions and document analysis. The data were collected from 86 instructors and deans, who were selected by using availability sampling and 125 students who were randomly selected. The questionnaires were piloted and checked for their reliability. The data obtained through the questionnaires were described and analyzed using frequency, percentages, mean, standard deviations, t-tests, and chi-square. The information obtained through open-ended questionnaires, and the interview was qualitatively analyzed to supplement the quantitative data.

The findings of the study show that there was a problem of giving attentions for the stakeholders' roles and importance of participation throughout the curriculum development process. The study revealed that shortage of qualified teaching staff compare with absence of specialization and experience academic staffs in terms of number and quality, were limiting the curriculum implementation and negatively influenced the quality of the output.

The study further investigated that, poor in-service training before implementation of the new curriculum, unavailability of curriculum development and research center, shortage of instructional materials, lack of student's background knowledge, poor evaluation and feedback practice, poor student admission criteria, inappropriateness of the teaching methods, resistance to change, and teacher's teaching loads were substantially inhibited the implementation practices of the curriculum.

Therefore, it is recommended that during curriculum development and implementation process the TMD should give attention to involve the entire Defense stakeholders, develop and upgrade the instructors, establish the research center, organize reference materials and set up clear and specific curriculum development implementation guidelines.

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LIST OF ACRONYMS

AAU	Addis Ababa University
CAA	Combined Arms Academy
COGS	Chief of General Staff
DoA	Department of the Army
EDCSC	Ethiopian Defense Command and Staff College
EDTMD	Ethiopian Defense Training Main Department
ENDF	Ethiopian National Defense Forces
FDRE	Federal Democratic Republic of Ethiopia
FGD	Focus Group Discussion
FM	Field Manual
JMSC	Joint Military Staff College
LTC	Lieutenant Colonel
HPR	House of People's Representative
MGHAMA	Major General Hayelom Araya Military Academy
MoND	Ministry of National Defense
MOE	Ministry of Education
MSL	Military Science and Leadership
TMD	Training Main Department

CHAPTER ONE

1. Introduction

In this Chapter background; a statement of the problem; objectives, significance, delimitation and organization of the study, and definition of key terms, have been treated one after the other.

1.1. Background of the study

Peace and stability are crucial for sustained development and prosperity of nations. However, peace and stability cannot be achieved by mere wish. Hence, creating the strong National Defense of comparable standard is essential for ensuring peace and stability, which are vital elements for the continuity of development endeavor and eventual eradication of poverty.

The Federal Democratic Republic of Ethiopia (FDRE) Ministry of National Defense (MoND) is an institution established to accomplish its national tasks. The Mission of the MoND emanates from the constitution which states, "MoND's primary duty is to protect the sovereignty and democratic system of the country" (FDRE, 1995, p.21). To accomplish its duties and responsibilities, MoND has played a key role in the achievement of the Government's vision to bring about sustainable peace, security and development in the country. In practice, however, the major victories that have been achieved by the MoND in realizing its critical duties, and constitutional responsibilities were not free of challenges. One of the foremost challenges faced by the MoND was the existence of inadequate capacity in terms of education and training that cope with the existing Defense power within the current complexity abstraction of Military science, technology, the new kinds of threats and challenges. To this effect, the swift changes in dynamism of the military profession, global situation and information system could be managed only by the continuous education and training activity.

In view of this, MoND is exerting its maximum effort towards the attainment of the required level of qualification and competence in formal and informal training and education programs. To this end, since 2002, the MoND has established Training Main Department (TMD) which is playing a key role in strengthening the capacity of the

Ethiopian Defense Force (EDF) by producing competent and committed personnel. In line with producing capable and well-trained professional army to dealing with changing environment and global trend, the Defense Training Main Department has been practicing curriculum development and planning in high and low levels of its colleges since 2002. It is to realize this intention that the Ethiopia Defense Training Main Department (EDTMD) curriculum was developed based on the new Ethiopian Educational and Training Policy (1994) and the Training Policy of the Ministry of the National Defense (MoND, 1998).

This process of development can be realized when the curriculum is designed reflecting the needs of the social forces existing in society. Some prominent educators (Tyler, 1949; Taba, 1962, in ICDR, 1999) strongly stressed that curriculum issues are central to education and the curriculum is taken to be at the heart of the educational enterprise. Therefore, revision and development in a curriculum are necessary to make provisions for the challenge and the demand of the society. Curriculum development and planning, like the actual educational process itself, is a continuous process. It requires devotion of organized expertise, leadership, time and other related resources in order to sustain. Without committing and devoting such efforts, the educational process in the higher level of institution cannot be expected to transform itself into the successive levels of excellence.

Contemporary dialogue on the essentials of successful curriculum development elsewhere emphasizes the need to move away from the top-down policy-making style towards a participatory process that involves practitioners and other stakeholders right from the planning stage. The argument is based on the fact that successful curriculum changes require a critical and collaborative approach that allows participants to own and control the process to reduce the unavoidable gap between theory and practice. Several curriculum development studies have clearly shown that significant improvement has taken place where participation of instructors was both more extensive and more inclusive and were more instructors were involved in curriculum development (Aggarwal, as cited in Misgna, 2007). This implies that teachers are also

curriculum makers rather than only curriculum implementers or transmitters (Jackson, 1996).

On the other hand, in order to have a good curriculum, the implementation stage should be given the emphasis it deserves. Curriculum implementation according to Fullan (1991) consists of the process of putting into practice of an idea, program, or set of activities. The implementation stage is an important stage in the curriculum development process, since it affects the quality of the curriculum. According to Pratt (1980), designing a curriculum is not completed simply by writing the final word of the curriculum. Rather, it will be completed and meaningful when it brings certain impact on the learner's behavior. Thus, unless curriculum planners give attention to the implementation process, many curriculum materials will have no use in bringing the intended result.

In connection to this, curriculum evaluation is a crucial aspect of curriculum implementation. Regarding this, Saylor and Lewis (1981) indicated that the significant role of curriculum evaluation is determining the value of the curriculum. Marsh and Willis (1995, p.268) notes that:

> Curriculum evaluation includes studying how teachers and students interact with each other and with a curriculum or syllabus in a particular setting. It is not confined to investigating only what students have learned or analyzing lesson's plans. Rather, curriculum evaluation can involve examination of the goals, rationale, and structure of both the planned and the enacted curriculum; a study of the context in which the enacted curriculum occurs; and an analysis of the interests, motivations, reactions, and achievements of the students experiencing the curriculum.

Hence, in the light of the above issues, the studies of curriculum development and implementation in the civil sector have been studied. The study was indicated that there are some constraints in the designs and implementation of curriculum development. Most existing works focus on public primary school and technical college.

However, curriculum development and implementation in Ethiopian Defense in general, in Training Main Department, in particular, is not studied yet. In order to bridge this lacuna, my study belongs to this topic with a particular focus on three selected Defense Training Main Department colleges. Thus, this study is expected to provide useful information to the practice of curriculum development, implementation and evaluation in TMD Colleges and academies by identifying the major problems encountered during the process.

1.2. Statement of the problem

The availability of effective curriculum development and implementation practices plays great roles in the success of missions and objectives of education. According to Oliva as cited in Sheferaw (2010), curriculum development is an integral part of education. The task requires systematic thinking and must follow well established set of procedures concerning decisions towards the end purpose of schooling.

In the shaping of curriculum, deliberation, at the individual and/or group level, is an integral and necessary component. Several curriculum development studies have clearly shown that significant difference has taken place where participation of stakeholders was more effective and inclusive and were more, and different stakeholders were involved in curriculum development. Particularly, curriculum development related to defense education, and training program requires appropriate stakeholder's involvement. To play this role, the TMD Defense stakeholders must be involved in the entire curriculum development process. In the TMD Colleges' curriculum development practices, however, the researcher has a doubt that whether the whole stakeholders actively involved or not. In this regard, the Training Main Department's five years strategic plan (TMD, 2005) indicated that the entire MoND stakeholders should be actively involved in the initial design and development of the curriculum.

The college instructors can contribute a lot in various ways throughout the stage of curriculum development and implementation. To be successful in curriculum

development and implementation process, the instructors need a sound foundation balanced in theory, knowledge, and practical experience.

In this regard Short as cited in Molalign (2007) notes:

> If there is lacked of substantial knowledge regarding the process of curriculum planning on the part of those charged with the tasks, it is likely that the determination of educational objectives, the selection and organization of educational contents, its appropriateness, depth and coverage would be decided arbitrarily.

Preparation of curricular plans brings about nothing unless it is translated to the actual learning-teaching environment. Van den Akker (2009) noted that the success in curriculum implementation relies on several factors such as school environment, availability of resources, teaching-learning methodologies, evaluation strategies, socio-cultural setting, attitudes of learners, teachers and other stakeholders involved in the process. However, the implementation of curriculum is strongly influenced by teachers' competence and knowledge towards specific curricula. Teachers are the central persons who are mainly responsible in developing and implementing the curriculum. Particularly, Military science requires great of skill in organizing, evaluating, and envisioning the many factors that comprise indirect and direct means. Developing curriculum without involvement of teachers and teaching without appropriate competence and knowledge might affect the curriculum implementation process in many ways if not appropriately considered by the TMD.

On the other hand, the issue of the relevance of the curriculum with Ethiopian Military science and doctrine becomes one of the subjects of debate in TMD colleges in which the existing curriculum is influenced by foreign military concept and doctrine. The quarter year report of Ethiopian Defense Command & Staff College (EDCSC) (2006) points out that the curriculum is sound at its general, but it may fall short of meeting with the MoND intent and the use of Ethiopian Military science and Doctrine. If TMD's colleges do not commit themselves to develop relevant military science and doctrine, it may result in the military education system which does not adequately prepare students for

the Ethiopian Defense operational environment. This notion can be attributed to the availability of better capacities and facilities of curriculum development and research center for undertaking curriculum research.

In connection with this, several researchers contended that learning materials are critical parts of curriculum implementation. For effective and proper implementation of a curriculum, the availability of learning materials is inevitable. It has a great impact for effectively implementing the curriculum. In TMD colleges, the availability of standard learning materials, especially, printed materials such as reference books, modules, organized text books and teacher guides seem inadequate or non- existent. The extent of the availability of instruction materials at the TMD colleges, however, is an issue that needs to be considered.

Above all, it is not yet known if the evaluation mechanisms that have been practiced by TMD colleges really meet the defense desired ends, and whether the colleges receive the necessary feedback to implement the curriculum. These are the critical issues that will determine the success of curriculum implementation and that have prompted this study, which sought to examine the curriculum evaluation mechanisms in TMD colleges in the curriculum development practices.

In general, without the entire facts given above one cannot claim for the existence of viable curriculum development and implementation activities. Moreover, no researcher has attempted to undertake a comprehensive treatment of Ethiopia's National Defense curriculum development practice. Hence, the study is designed to investigate the practices of curriculum development, implementation and evaluation in the TMDs selected colleges. Besides, the study assessed whether or not the practices made by the TMD is in congruent with what was suggested by different scholars in curriculum development and implementation.

Therefore, the study seeks to answer the following basic questions.

1. What curriculum development stages and models were considered in developing/designing TMD colleges curriculum?
2. To what extent have the stakeholders involved in curriculum development and implementation process since 2005?
3. To what extent the curriculum of the TMD colleges implemented?
4. To what extents are instructional materials available in TMD colleges?
5. What evaluation mechanisms were employed in TMD colleges' curriculum development practices?
6. What are the major problems or constraints that affect the curriculum development and implementation in Ethiopian Defense TMD?

1.3. Objectives of the study.

The general objective of this study is to assess the practices of curriculum development and implementations in Ethiopian Defense Training Main Department (EDTMD). Particularly, the research was designed to meet the following specific objectives.

1. To investigate the stages and models considered while developing the curriculum of TMD colleges for Defense Education.
2. To assess the level of stakeholder's involvement in the development of curriculum for TMD colleges.
3. To assess the TMD college curriculum implementation practices.
4. To examine the curriculum planning and evaluation mechanisms within the TMD.
5. To assess the availability and adequacy of instructional materials in TMD colleges.
6. To identify the major constraints those affects the curriculum development and implementation in the TMD and suggest possible solutions for the improvement of the curriculum development and implementation process.

1.4. Significance of the Study

This study is an attempt to assessing and identifying the major problem encountered in the process, and it is expected to recommend solutions related to the curriculum development and implementation practices. More specifically, this study is significant to:

1. Identify the major problems of curriculum development and implementation practice in the TMD in order to take corrective measures so that curriculum development practices might be efficient and effective.
2. Serve as a source of information for TMD curriculum coordinators, instructors, and academic staffs to improve the actual practice of curriculum development and implementation.
3. Show the nature of the problem and should be seen as a small step in filling that gap, thus it will serve as initial study and pave the way for those who want to make further studies in a broader scope.

1.5. Delimitations of the Study

The study is delimited to the exploration of the practice of curriculum development, implementation and evaluation activity of Ethiopian Defense Training Main Department (EDTMD) 2005/06 - 2009/10 years. Moreover, the study was delimited only to TMD colleges and academies that the results obtained could not be fully generalized to all MoND colleges and training centers throughout the country. The study has been conducted only on the regular students` curriculum development practice. In addition, the study is not concerned to evaluate the curriculum content as it focuses merely on the practices of curriculum development and its implementation process.

1.6. Limitation of the study

The major limitation of the study is lacked of adequate and exhaustive research work related to the title of the research in the Ethiopian Defense which limited the researcher to refer to what was done before. In addition, poor documentation and unavailability of

the required reference material in relation to the title at foreign and local military sources were a limited the study process.

1.7. Operational definitions of terms

1. **Curriculum Development:** It is considered as deliberately planned activities through which courses of study or patterns of educational activity are designed and presented as proposals for different educational institutions.

2. **Curriculum implementation**: - is the actual use of curriculum, or to put in order to practice what has been intended or planned.

3. **Military Doctrine:** Fundamental principles by which the military forces thereof, guide their actions in support of national objectives. It represents the consensus on how the Army conducts operations (Field Manual, 2009).

4. **Military Science:** is the process of translating Ethiopian National Defense policy to produce Military capability by employing military personnel, Military concept and methods, technology, weapon system, etc. (Field Manual, 2009).

5. **Stakeholders:** A person, group, or organization that has direct or indirect influence the design of TMD curriculum, because it can affect or be affected by the TMD's actions, objectives and policies.

6. **Training Main Department:** One of the Ministry of National Defense Main Department that has been responsible for organizing, directing, and controlling the Defense education and training activity.

1.8 Organization of the Study

This study has been organized into five chapters. In the first Chapter, background of the study, statement of the problem, research questions, objectives of the study, significance and delimitation of the study and definition of key terms were included. In the second Chapter, review of the related literature was incorporated. The third Chapter presented methodology, which included design, sources of data, sample and sampling technique, instruments of data collection, procedures, and data analysis. The fourth Chapter dealt with presentation and analysis of data. The last Chapter incorporated the summary of major findings, conclusions, and recommendations.

CHAPTER- TWO

REVIEW OF RELATED LITERATURE

This Chapter deals with the review of related literature. It presents the concept of curriculum and curriculum development, stages of curriculum development, curriculum planning, curriculum implementation, curriculum evaluation and the practice of curriculum development in Ethiopian National Defense.

In doing so, the chapter is intended to raise awareness of the curriculum concept and the perspectives and models that serve as criteria for curriculum evaluation, with particular reference to curriculum development and curriculum implementation.

2.1. Curriculum and Curriculum Development

2.1.1. The Concept of Curriculum

The term curriculum is difficult to define because it could mean anything quite simple, from intended educational objectives or a list of courses students must take, too much more complex definitions, such as the subject matter, experiences, goals, outcomes, and processes for learning. The organization of schooling and further education has long been associated with the idea of a curriculum. According to Porteli (1987), More than 130 definitions of the term appear in the professional literature devoted to curriculum, presumably because authors are, concerned about either delimiting what the term means or establishing new meanings that have become associated with it.

The actual word *curriculum* is of Latin origin and comes to the English language through the Old French verb, *currere*, meaning "to run." The Latin noun curriculum refers to both a 'course' and a 'vehicle'. In the context of education, the most obvious interpretation of the word is to view it as a course for 'learning'. To use an analogy, curriculum means the course (or path) that students have to run to finish the "race" or put another way, all the activities which students need to do if they are to finish a programme of study and achieve the intended learning goals (Van den, and Thijs, 2009:9). Theories and conceptions of curriculum have been and are presented in different ways and categories. Different educators and educational philosophers have

proposed and asserted in their own terms and categories, the concept and the base which curriculum should depend.

Lovat and Smith (2003, p.6) confirm that:

> *The word (curriculum) itself is used in many different contexts, by principals in schools, by teachers, by curriculum writers in education systems, and increasingly by politicians. It can mean different things in each of these contexts.*

Oliva (1997) also points out that definition of Curriculum can be conceived in narrow or broad ways. He suggests that differences in the substance of definition of Curriculum are largely due to whether the emphasis is upon:

- Purpose of goals of Curriculum (for example, a curriculum is to develop reflective thinking)
- Contents within which the Curriculum is found (for example, a Curriculum is to develop the individual learner in all aspects of growth)
- Strategies used throughout the Curriculum, for example, a Curriculum is to develop problem - solving process.

The above interpretations imply that many definitions of curriculum have emerged within these narrow and broad categories. A useful starting point for us here might be the definition offered Kelly (1983, p.10) in his standard work on the subject. Kelly defines curriculum as, 'All the learning, which is planned and guided by the school, whether it is carried on in groups or individually, inside or outside the school.

In addition to the above definitions, a number of other more ideas have been expressed by various curriculum specialists. For instance, Tyler (1949:1) defines curriculum is "the plan for an educational program." This definition of Tyler considers education as a purposeful activity to be carried out based on certain procedures and in an organized way. For Beachamp, "curriculum is a written plan depicting the scope and arrangement of the projected educational program for the school (Beachamp,1982:25). Similarly, Tanner and Tanner (1995:158) point out that, a curriculum is a "plan or program of all experiences which the learner encounters under the direction of a school."

To Derbessa (2004, p.269) the term curriculum is "what students should know, be able to do and committed to (content), how it is taught (instruction), how it is measured (assessment), how the educational system is organized (context). It is also considered as a practical reference source for teachers containing the range of strategies that can be utilized to achieve course outcome.

Therefore, the most agreed basic notion of the curriculum is that it refers to a plan for learning (Marsh & Stafford, 1988; Van den Akker, 2009 and Lovat & Smith, 2003). From the definitions above, it is possible to state that a curriculum has the following characteristics:

- It comprises the experiences of students for which the school is responsible.
- It has content.
- It is planned.
- It is a series of courses to be taken by students (Common wealth of learning, 2000)

In connection this, It is remarkable that the term curriculum is given many but related definitions by different scholars. Such differences in definition seem to originate from the different views the scholars have about the aim of education, the nature of society and knowledge. The existence of different terminology, whatever the causes and sources of the difference, has caused difficulty in understating the concept of curriculum. As a result of this, the search for one single definition of curriculum became a futile quest.

Therefore, it seems unfair that denouncing one definition in favor of another. However, for the sake of common understanding, it is necessary to set a common definition that will enhance better interpretation among the curricula specialists. Thus, this study considers Aggarawal's definition as a working definition.

According to Aggarawal,*(1990)* Curriculum can refer to:

> The total structure of ideas activities developed by an educational institution to meet the learning needs of students and to achieve desired educational aims. The curriculum is all the experiences that individual learners have in a programme of education whose purpose is to achieve broad goals and related specific objectives, which is planned in terms of a framework of theory and research or past and present professional practice.

Bringing all these points together, Curriculum is a plan for ordering and directing the teaching-learning experiences that student's encounter in an educational institution. The process of providing the plan and keeping it running smoothly is known as curriculum development.

2.1.2. The concept of curriculum Development

According to Salia-Bao (1989), curriculum development is a systematic approach for the development of curriculum materials for teaching and learning. In the wider sense, it could be seen as the process for making programmatic decisions and for revision, the products of those decisions based on continuous and subsequent evaluation. In addition, it is widely recognized as the way and means of ensuring continuous adaptation to the work with the schools in rapidly changing world.

Curriculum development is the more comprehensive term, which includes planning (determination of aims and goals), design, implementation and evaluation. Curriculum development is a process that continuously strives to find newer, better and more efficient means to accomplish the task of educating the next generation.

Similarly, Tyler (1949, cited in Derbesa, 2004, p. 107) defined curriculum development as a systematic attempt at problem solving, namely the understanding and guideline of learning in school. According to Derbesa (2004) curriculum Development is the more comprehensive term. It includes planning, implementation, and evaluation. Planning is the thinking and design phase. Curriculum implementation is translating plans into action; a curriculum is planned for an educational program that is prepared for some

intended purpose. It is developed to be used in the formal education program with the view to bring about a behavioral change in the learners. In their explanation of curriculum development, Carl et al. (1988, p.23), adding the dissemination phase, assert that:

> Curriculum development can be regarded as that process during which the phases of curriculum design, dissemination, implementation and evaluation feature strongly. The development that takes place within these phases, aims at more effective teaching and therefore, the ability to plan is a strong characteristic of each phase.

Marsh and Willis (1999,p.95) noted in this regard: curriculum development today implies self-reflection, self-understanding about what happens in school, understanding curriculum as institutional text in terms of the everyday functioning within the school, but without losing sight of the imperative of institutional improvement. The contemporary theorizing suggests that curricula can be planned, enacted, and experienced in many appropriate to many different circumstances and people.

Thus, understanding curriculum means understanding it as institutionalized text in the sense that what happens in schools is translated into institutional and discursive practices, structures, images, and experiences that can be analyzed in various ways. It would seem that curriculum development comprehends planning, implementation and evaluation, particularly with a view to change and betterment. During this process, which may take many years - especially where generic curriculum development is concerned, which extends beyond a specific local context - desires and ideals are incorporated in a cyclic process of design, implementation and evaluation to achieve concrete results in practice. All phases of curriculum development are intrinsically connected and that there is a dynamic interaction among them.

2.2. Stages in Curriculum Development Process

The development of a Curriculum is a process that requires a relatively long time. Definitely, there are differences on the curriculum development process. In some countries, the school curriculum is developed in highly centralized institutions while in others it is developed at local levels. The stages of curriculum development process also differ. According to Tyler (1949), the four major stages of curriculum development process are:

- Selection of objectives,
- Selection of learning experiences,
- Organization of learning experiences, and
- Evaluation.

In real practice, curriculum developers do more than what is suggested in those four stages. For example, Shiundu and Omulando (1992) analyzed and suggested a more detailed curriculum development process with nine stages:

- Situational analysis (Need assessment);
- Formulation of objectives;
- Setting up the curriculum project;
- Program building;
- Piloting the new programme in selected schools;
- Improving the new programme;
- Implementation;
- Evaluation; and
- Maintenance.

According to Shinudu and Omulando (1992), whether developing a new curriculum or changing the existing one, the process will generally follow these stages. The curriculum itself should be regarded as dynamic rather than an activity, which is undertaken once and for all. It is a continuous process. For him, the nine stages therefore should not be regarded as always starting with situational analysis. This may be true with a new instructional programme, otherwise the whole process is cyclic in

nature. In this study context, the next section deals with the three phases (Planning, implementation and evaluation) of curriculum development. This exposition is intended to provide the reader with insights to which the new curriculum prescribes how it must be implemented.

2.2.1. Curriculum Design/ Planning

Curriculum planning is the preliminary phase of curriculum development when the curriculum workers make discussion and take actions to establish the plan that teachers and students will carry out. Pratt (1994, p.27) asserts that *"design in general is the essence of all human activity, since we plan almost constantly, by giving forethought to our actions, predicting consequences, weighing alternatives. This is a part of what it is to be a human being. It is an integral part of being a professional."*

Glancing at this quotation, one discerns immediately that, in general, undertaking any activity without design or plan is irrational, because it runs counter to the natural inclination of human behavior in preparation for any intentional activity. Unplanned activity is unprofessional because it predisposes the relevant activity to failure for lack of vision, clear goals, strategy and stocktaking of required resources to accomplish the relevant assignment. The same writer expresses a preference for referring to curriculum planning instead of design, contending that:

> Curriculum planning might be defined as the art and science of planning the conditions of learning. These conditions include such considerations as identification of the learning needs to be met; selection of the modes of evaluation to be used; determination of entry characteristics of learners; selection of instruction content and methods; provision for individual differences, and logistical issues such as choice of materials, equipment, facilities, personnel, time and cost (Pratt, 1994, p.29).

Carl et al. (1988) point out that curriculum design may be understood as the creation or design of a new curriculum as well as the eventual re-planning of an existing curriculum following a thorough evaluation of it. The main goal of curriculum design at school level is to enable more effective teaching for the learner.

As far as the personnel involved in curriculum planning are concerned, the modern trend there has to be a cooperative and collaborative effort among different groups to develop it. For effective and successful curriculum planning, there must be a common understanding among different groups of people that can affect the process, like teachers, developers, stakeholders professional educators, subjects specialist, state wide leaders and, etc. The parents and citizens can help in setting the kind of outcomes desired from school experiences and may participate in the evaluation of behavior in terms of the outcomes so that subsequent experiences may be planned more effectively.

In relation to this, Fullan (2001) explains the curriculum planning is relied on the process of cooperative efforts, at state, district, and local school levels, with inputs from various internal and external agencies and from members of the school community.

As it is said earlier curriculum is the plan for educational plan and provision of learning opportunities for learners, the nature of this plan will depend on goals and objectives of the program, and it is believed that the intended goals and objectives of the program will be successful, if they are based upon the needs and objectives of the learner. This idea is supported by different scholars such as Fullan (2001, Shinudu and Omlando 1992). For them, personal interests and objectives have to agree with the objectives of the program, and it is when this happens, that learning, or the success of the program is guaranteed. A curriculum design can only remedy educational problems if it is based on a thorough diagnosis, on appropriate research and on positive and relevant practical experience. It may be expensive at first, but its effect in the long-term is compensatory, making it an affordable initiative. In contrast, a curriculum designed in haste often ignores the real problem and results in ineffective education.

The process of curriculum planning also includes in deciding on curriculum models, to be used. The values of the model lie in its unique power to communicate the essential aspects of something planned or already existing. It is important to understand the concept of model and model building. So it is necessary to discuss the nature of model, and model building.

2.2.2 Models of Curriculum Development

Curriculum development models are different programmatic plans (various sequences of steps devised with a view to curriculum effectiveness) which implies continuous monitoring of implementation to ensure that relevant considerations receive due to attention. Kelly (1985, p.15) correctly asserts that:

> In engaging in curriculum planning, therefore, we need to be clear about the logic of the process, and we need to take full account of all those other factors that appear to have some relevance to our enterprise, but we also need some basis upon which we can make the necessary choices and selection, a set of criteria, a framework of values within which to work.

Hameyer (1991, p.20) likewise, asserts that a conceptual curriculum model provides rules for deliberate interaction and activities, criteria for intervention, and guideline for evaluation. It stands to reason that curriculum models must be known and understood in order to evaluate their implementation effectively.

In the light of above discussion model is a pattern of something to be made or reproduced and means of transferring a relationship or process from its actual setting to one in which is can be more conveniently studied. In the point of view of the model of teaching is planned or pattern that can be used to shape curricula, to design instructional materials and to guide instruction in the classroom and other setting. There are many models of curriculum development, but in this chapter, we will discuss three well-known models: as UNESCO Training manual in Derbssa (2004 and Salia - Bao 1989), the objective Model, the process Model, and the Situational Model.

2.2.2.1. The objective Model / Tyler Model

One of the best-known curriculum models is The Tyler Model introduced in 1949 by Ralph Tyler in his classic book *Basic Principles of Curriculum and Instruction* in which he asked four basic questions:

1. What educational *purposes* should the school seek to attain?
2. What *educational experiences* can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively *organized*?
4. How can we determine whether these purposes are being *attained*?

In essence, Tyler's questions represent the four-step sequence of (1) identifying purposes or objectives, (2) selecting the means for the attainment or achievement of these objectives, i.e. what educational or teaching-learning experiences have to be provided for students,(3) organizing these educational or teaching-learning experiences, and (4) evaluating the outcomes or what have students attained or achieved. Figure 1 presents Tyler's model of curriculum development.

The first stage includes the selection of objectives by the curriculum planners from three sources, namely the learners, society and the subject matter. It is important to note that once general objectives have been identified, the curriculum planners have to consider the two screen: the suitability of the objectives in relation to the educational and social philosophy at the school, and in relation to the psychology of learning. Resulting from these are specific *instructional objectives,* which state the kind of outcomes that are observable are measurable.

The next step is the selection of educational experiences, which enable the attainment of the stipulated objectives. The learning experiences referred to are activities that should be undertaken by students for the teaching and learning process to achieve prescribed learning objectives aimed at developing learners' thinking skills (concepts), helping learners to acquire information (skills), and developing social attitudes and interests (values). The learning experiences have to take into account the previous experiences learners bring to a situation. It will have to be selected based on what is known about human learning and human development.

Next, Tyler talked about the *organization* and sequencing of these learning experiences. He emphasized that the experiences should be properly organized to enhance learning and suggested that ideas, concept, values and skills be used as organizing elements woven into the curriculum. He further explained that, curriculum Organization is a

systematic arrangement of objectives, learning experiences and materials in a unified and consolidated manner. It is a process of putting contents and learning experiences together to form some kind of coherent program.

Finally, Tyler proposed that *evaluation* should be an important part of the curriculum development process. It was necessary for educators to know whether the selected learning experiences produced the intended results. Through evaluation, it will be possible to determine whether the curriculum was effective or ineffective.

Summing up, the Tyler model consists of the following elements: objectives, activities (learning experiences), organization of activities, and evaluation. There is no denying that Tyler's thinking has greatly influenced the field of curriculum, especially curriculum development. The four questions that he raised had and still have great appeal because it is very reasonable and workable (Ornstein and Hunkins, 1998).

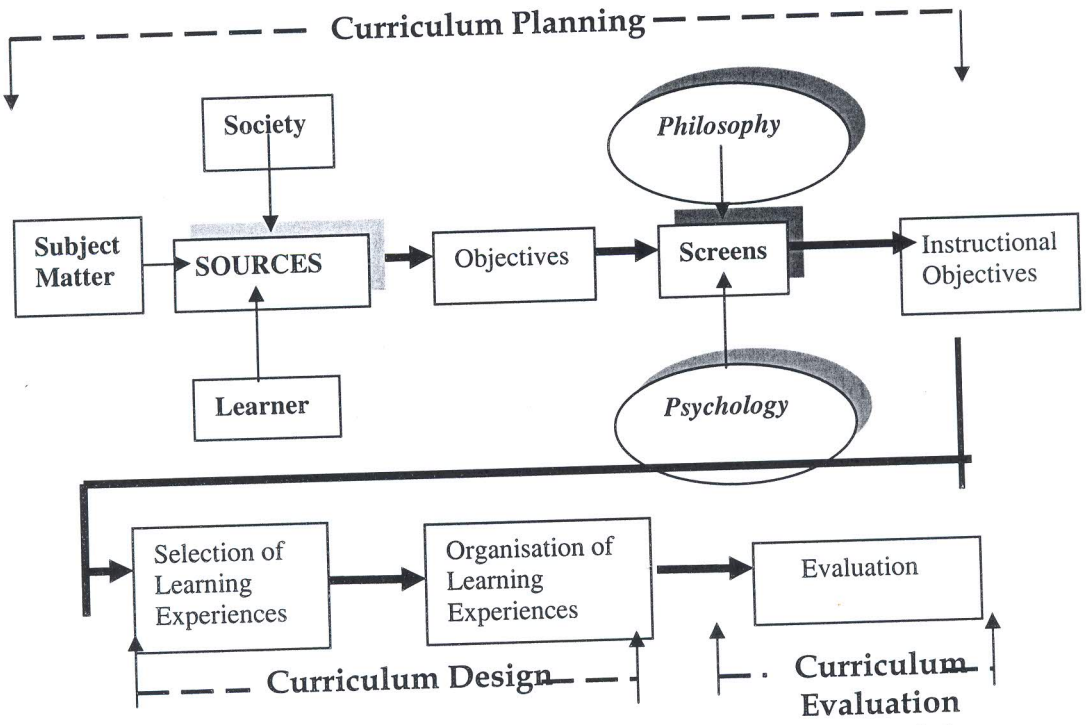


Figure 1. Tyler's Curriculum Development Model

[*Source*: adapted from Ornstein & Hunkins, *Curriculum: Foundations, Principles and Issues*, (Boston: Allyn and Bacon, 1998), p.198.]

2.2.2.2. The Taba Model

Of the several books that Hilda Taba wrote on curriculum, the most well known as influential was Curriculum Development: Theory and Practice (1962). In this substantial book Taba modified Tyler's basic model to become more representative of curriculum development in schools (Print, 1993).

This model is most commonly used. Taba (1962) argues that curriculum should be designed by the teachers rather than handed down by higher authority. In this regard, she postulates that the teachers should start the process by creating trial teaching-learning units in their schools rather than engaging from the outset in creating a general curriculum design. Taba (1962, p.12) argued that teachers, who teach the curriculum, should participate in developing it, which led to the model being called the *grass-roots approach*. She noted 7 major steps to her grass-roots model in which teachers would have major input.

1. **Diagnosis of needs/ Need Assessment** consisting in a clear identification of the students ' needs with due allowance for gaps, deficiencies and variations in student's backgrounds. According to Taba, diagnosis, then, is an important first step in determining what the curriculum should be for a given population.
2. **Formulation of objectives** or goals to be targeted in the light of diagnosis. In large part the objectives determine what content is important and how it should be organized. .
3. **Selection of contents** by determining appropriate subject matters or topics aimed at defined objectives. This process must take account of different levels of learners' capacity to grasp the content with due attention to level of introduction as well as continuity or sequencing.
4. **Organization of content** deciding at what levels, how deep and in what sequences the subject matter will be dealt with or covered.
5. **Selection of learning experiences** adopting methodologies or strategies as well as learning activities. The planning of learning experiences becomes a part of a

major strategy of curriculum building. At this point, the teacher selects instructional methods that will involve the students with the content.

6. **Organization of learning activities**: deciding how to engage learners' interest in and commitment to content, and combinations and sequences to be followed, given the characteristics and general background of targeted students.
7. **Determining what and how to evaluate** with the aid of appropriate techniques, whether and to what extent defined objectives are being or have been achieved.

Taba's model is basically the same as that of Tyler, because Taba also emphasizes the importance of objectives. One notable difference is that Taba makes content very conspicuous probably subsuming Tyler's element of organization of learning experiences.

2.2.2.3. The Process Model

According to Salia-Bao(1989, p.16), Lawerence Stenhous (1975) was the pioneer of this curriculum model. He argues that a process model is more appropriate than an objective in areas of the curriculum, which center on knowledge and understanding. He believes that it is possible to design curricula rationally by specifying contents and principles of procedure rather than by pre-specifying the anticipated out comes in terms of objective. In contrast to the objective's model, much emphasis is given to the process, methods and procedures that the already stated objectives. For example, students in a certain discipline would learn the methods and procedures to deal with the knowledge of that particular discipline than dealing with contents to attain a stated objective (Ornestion and Hunkine, 2004).

According to Stenhoue (1975), content should show important procedures, key concepts and criteria that are inherent in a form of field of knowledge. The justification for choosing such content rests not on the pupil behavior to which it gives rise, but on the degree to which it reflects the fields of knowledge.

The end product produced by pupils it not specified before hand in terms of behavior but can be evaluated after the event by the criteria built in to the art from. Behavioral objectives are absent and the teacher does not promote any particular point of view or response in the pupils, in place of objectives the emphases is on defining acceptable principles of procedure for dealing with such issues (Stenhouse,1975).

2.2.2.4. The Situational Model

The situational model has its roots in cultural analysis as developed by Shellback. The model puts curriculum design and development firmly within a cultural frame work, and it view such design as a way in which teachers modify and transform pupils experience through providing insights into cultural values interpretative form works and symbolic systems. The model is based on the assumption that the focus for curriculum development must be individual, school and its teachers who school-based curriculum development. Situational model is not an alternative to the other two moderns. Rather it is more comprehensive framework, which can encompass either the process model or the objective model, depending on which aspects of the curriculum are being designed.

In general, there is no universal approach to curriculum design. Each model has something to offer. Oliva (1992) correctly notes that models are not perfect and cannot show every detail and nuance of a process as complex as curriculum development. Curriculum models are important tools to guide curriculum developers, provided they use the models with due circumspection. In this regard, Ornstein and Hunkins (1993:188) note that model aid comprehension and theory building. They are useful for economically organizing and explaining vast amounts of data. The usefulness of any curriculum model should be therefore judged according to the specific context and purpose its use, and not on the grounds of intrinsic superiority. In fact, no model is simply inherently superior to other models.

2.2.3. Curriculum Implementation

The next stage in the curriculum development process according to Tyler, Taba and Alexander & Saylor is the implementation of the curriculum plan. The final destination of any curriculum (whether it be a school, college, university or training organization) is the classroom involving students, teachers, administrators and the community. Implementing the curriculum is the most crucial and sometimes the most difficult phase of the curriculum development process.

Though the term is defined by different scholars, it has almost a similar meaning. Fullan and Pomfret (1977, p.336)defined implementation as "the actual use of an innovation or what an innovation consists of in practices. Similarly, Derebssa (2004, p. 197) stated that "curriculum implementation is a process of putting the developed/planned curriculum in to affect." The process is developmental and occurs on different levels. It focuses on the extent to which actual change in practice occurs and those factors which influence the extent of change. Supporting this Grotelueschen (1980:85, cited cited in Desalegn 2007), explained implementation as "a process of putting the goals and designing to work." Groteluechen also suggests that curriculum implementation is "a process by which a program is conducted using a variety of teaching- learning-administrations procedures, aimed at fulfilling the designer expectations of a target audience."

Allan and Francis as cited in Derbessa (2004, p.197) view implementation as a separate component in the curriculum action cycle. It is the logical step once a program has been developed and piloted. It involves extensive action by many parties- not just, for example, an offer to staff one workshop. Implementation also involves attempts to change individuals' knowledge, actions, and attitudes. Implementation needs the participation and involvement of different personalities/parties, including those who plan the curriculum and those who are going to implement it.

As per the above definitions, implementation in short is the execution stage of a planned curriculum. Putting the curriculum into operation requires an implementing

agent. Stenhouse (1975, p.4) identifies the teacher as the agent in the curriculum implementation process. She argues that implementation is the manner in which the teacher selects and mixes the various aspects of knowledge contained in a curriculum document or syllabus. Implementation takes place when the teacher-constructed syllabus, the teacher's personality, the teaching materials and the teaching environment interact with the learner (University of Zimbabwe, 1995). Curriculum implementation, therefore, refers to how the planned or officially designed course of study is translated by the teacher into syllabuses, schemes of work and lessons to be delivered to students.

These are real concerns and made worse when persons implementing the curriculum are not clear what is expected of them. How often have we heard people say, 'the plan was good but implementation was poor'. On the other hand, if a curriculum plan is not implemented and remains on the shelf, then all efforts in planning will be a sheer waste. A curriculum must be delivered, and that means it must be implemented at the classroom if it is to make an impact on student learning. Good plans reaching the classroom are not properly implemented because of a lack of planning and preparation. In some curriculum development projects, implementation is not been given due to consideration; not realizing that innovations need careful planning and monitoring. We hear of teachers not being properly trained and are required to implement changes at the classroom within a short period of time. According to many scholars, implementation is not an easy task. For Giroux and et al (1981:10) the entire process of curriculum implementation is highly complex, as a result of this is needs extremely skilful orchestration of participants and components for better results.

From the remarks given by the above writers, we can easily see that implementation, as compared to other curriculum aspects, is the complex process as it confronts real classroom situations. It is concentrated as noted by Dervegt and Knip (1990) because it involves curriculum planners, principals, administrators, teachers, supervisors, students, other concerned bodies in direct contact with the innovative concepts. In addition to this, there has to be a clear understanding among curriculum implementer and practitioner and those who design it."

On the other hand, success of curriculum implementation depends greatly on our own efforts within the school. This conclusion is considered by Skilbeck (1998, p. 121) who contends that "*None should obscure the fundamental importance of the school itself and of teaching as the focus of effort and activity in nurturing basic educational values, fostering student growth and achieving crucial societal goals.*"

One of them is to consider that curriculum implementation is inconceivable without teachers who conform to the stated. A second possibility is to assume that given the essential nature of the stated characteristics, a concerted effort is required to ensure that these characteristics are clearly in evidence to enable curriculum implementation. In fact, as Skilbeck (1998, p.125) points out, there is a need to ensure the feasibility of the principle that teacher development and curriculum development, including assessment procedures, must go to hand-to- hand.

Among contextual conditions for successful curriculum implementation, leadership plays a very important role. With regard this Hargreaves (1998, p.285)point out that:

> Managing change becomes a collective process, not an individual one. Initiative and creativity come out of the shadows of coordination and control. Leadership calls for the ability to create underlying senses of basic personal safety and emotional security, in which risk and creativity can flourish. Efforts are coordinated and new directions set by learning, information gathering and dialogue rather.

On the other hand, curriculum implementation is a complex process, thus, successful implementation cannot be achieved easily. Successful implementation involves a great deal of materials and manpower cost (Hord, 1995). Leslie Bishop as cited in Ornstein and Hunkins (1998) stated that implementation requires restructuring and replacement. He further stated that it requires adjusting personnel habits, ways of behaving, program emphasis, learning spaces and existing curriculum and scholars. It means getting educators to shift from the current program to the new program, a modification be met with great resistance.

According to these scholars, curriculum developers give more attention to write the plan, which is going to be implemented in the classroom by teachers. The reason why

many curriculums institutive have failed is simple and clear because of the less attention given for the implementation process by designers. Of course, the process of curriculum development is a challenging task; however, it is dangerous to think that the most important work has been completed once the design, and the dissemination have been finalized. The success is highly determined by the degree to which it is workable in practice its implementation.

Supporting this idea, Pratt (1980, p.426) also alleges that curriculum authors do not always give attention to implementation, to the extent that they should. He even alleges that the condition arises where curriculum designers does not know how to implement what they have designed. The ground for doing so was a better design will provide a similar result when it is implemented. However, many good programs have become useless or worthless than dust upon the shelves, hence curriculum planners need to be concerned with what is going to happen next to the best planned document. Even though large sums of money are spent on implementing new curriculum, several of these efforts have failed. The main reason behind the failure is the lack of understanding about the culture of the school by both experts outside the school system and educators in the system. In short, implementing a curriculum is not an easy task, and it requires so many things to be adjusted in the school where the curriculum is going to be implemented.

As it is already said previously, the success or failure of a certain program/curriculum is highly dependent on the process of implementation since there are many factors that either facilitates or hinders it. Thus, it is crucial to discuss the factor that hindered the effective implementation of curriculum in order to eliminate them before causing serious problems all in all system.

2.2.3.1. Factors Affecting Curriculum Implementation

Due to the many facets of curriculum implementation, there are numerous factors that could influence its realization. For instance, Goodlad (1984, p.168) indicated that there is no single variable to limit curriculum implementation. He argues that the circumstances

under which teaching learning occurs such as student-teacher ratio, number of hour's student pass in the classroom, administrative controls, etc. are some of the factors affecting implementation process. On the other hand, Majasan (1995, p. 143) identified the teacher, the pupil, the subject being taught, and the environment in which it takes place as determining curriculum implementation.

Fullan (1991, p. 68-80) after reviewing the works of various educators, identified three interactive factors affecting implementation as: local factors constituting the people and the organization in which people work, characteristics of the innovation and Implementation strategies. However, for the implementation of a planned curriculum, those factors strongly affecting the implementation process human factors, Implementation strategies and characteristics of the innovation sought due to attention.

2.2.3.1.1. Human Factor

Curriculum activities are a cooperative activity of those who are affected by the results of the curriculum. Ornisten and Hunkins (1998) suggest that if the curriculum is to be implemented and institutionalized, all parties should perceive it as their programs since curriculum activities are cooperative work. This sense of ownership is achieved by involving people directly and indirectly with the major aspects of curriculum development and implementation process.

For instance, Mackenze and Lawter (1948, p. 274) noted that implementing a new curriculum is highly affected by people who implement it. They further argue that people's value of the innovation must be modified because changes in materials for the school bring about nothing, unless they are changed in their value, attitude and knowledge. Wiles (1963) on the other hand, states that unless individuals involved in curriculum improvement have common perceptions of their various roles, any program of improvement will be hampered. Thus, curriculum implementation and improvement need the participation of all parties among those teachers, principal, students, supervisors, are the key players of the curriculum implementation.

a) Teacher

Without doubt, an important human factor, which strongly influences curriculum implementation, is the teacher. With their knowledge, experience and competencies, teachers are central to any curriculum improvement effort. Regardless of which philosophical belief the education system is based on, there is no denying that teachers influence students' learning. Better teachers foster better learning. Teachers are most knowledgeable about the practice of teaching and are responsible for introducing the curriculum in the classroom.

Regarding the vital role teachers should play in curriculum implementation, Shiundu and Omulando (1992, p. 213) stated by saying: "In *curriculum implementation various personnel are involved, but perhaps the one whose role is most important in seeing that the programs are successfully implemented is the teacher.*"

Concerning this point, a number of studies carried out in different countries have documented that the teacher is pivotal for the success or failure of curriculum implementation. Emphasizing this, Brown et al. (1982) have stated that, of all personnel involved in curriculum implementation the teacher is almost certainly the most important. He/she is the one who implements the idea and aspiration of the designers. This means that, it is the teacher who translates the intentions framed in the curriculum into actions through a multitude of activities occurring both, inside and outside the classroom. Therefore, teachers determine the success or failure of the curriculum. This is best explained in the words of Pratt (1980, p. 390) as the following "However, well or badly the curriculum designed; the teacher can make or break the programme." Thus, it can be said that the accomplishment of the school objectives depends mainly on the performance of teachers. Therefore, it appears that the teacher is the cornerstone of curriculum implementation. Similarly, the International Bureau of education (1993, p.1) explains that "No one is in any doubt that, the central agent for the process of educational reform is the teacher."

Teachers' participation in curriculum development always remains a potential factor for successful implementation. In this regard, Shiundu and Omulando (1992, p. 220-221) argue that the teachers' role is not only in effecting the planned curriculum, but they should also play a significant role in developing the curriculum plan. Similarly, Gross and his associates (1975, p. 25) noted that participation of teachers in curriculum development activity would have great impact on the degree to which a curriculum is successfully implemented.

Another important issue in relation to teachers is the knowledge they have on the part they teach. McCormick (1995) mentioned that teachers would teach best in areas, which they are knowledgeable, have effective materials and techniques. It is an obvious fact that teachers would not successfully implement a curriculum, if they don't have the knowledge and understanding about the curriculum. Hence, this entails a clear message for curriculum developers; that is, the need to consider the status of the teacher in curriculum planning.

Implementation is also affected by teachers' perception and belief towards the curriculum or the new policy, implementation at the classroom level depends on teachers' idea about their day to day teaching, and the extent to which they regard the new policy, curriculum, as desirable and practical. With regard to this McLaughlin (1976) stated that teacher's attitude as an important factor for implementation.

Generally, it can be inferred from the above reviewed literature that teachers are and will be central to any curriculum implementation; that is, their role is crucial as curriculum developers and implementers. In addition, it is advisable to give teachers the chance to participate in the designing phase of the curriculum for the curriculum implementation to be successful. Furthermore, teachers who are responsible for the effectiveness of the curriculum plan should pose the necessary competence. Because implementation requires necessary knowledge about the contents and methods, their incapability hinders the degree to which the curriculum is implemented in the desired way.

b) The Principal

In order for educational programs to be implemented effectively schools require human and organizational resources. However, without good management on the part of school principals, these human and organizational elements of the program would not bring the necessary change. Even the best-designed curriculum with best teachers brings about nothing if good leadership does not support it. This means that though teachers are central to curriculum implementation, their actions will be hindered by lack of good leadership. In this regard, Snyder et al. (1992, p. 417) remarked by saying, *"that the greater the active support from the principal the greater the degree of implementation."*

Likewise, Fullar (1992, p.161) expressed his view by stating as: "The principal's role is shaping the environment and facilitating the implementation process." The relation of the principals to teachers should also be the most intimate of any. In this regard, Hull and Dodds (1957, as cited in Samuel 2003, p.26) argue by saying: "*If the teacher fails, the principals fail; if the teacher succeeds, the principal succeeds.*" This means that strong relationship should exist between principals and teachers to implement the planned curriculum effectively. Hence, school principals play a crucial role in bringing the intended and desired change by leading and organization activities both in the school system and outside the school system. Principals support and facilitate activities that take place in school compound with teachers and with parents outside the school.

Generally, it can be concluded that for an educational change to be successful the principal's role should be significant in either initiating or promoting the new program and facilitating or making educational decisions when the program requires.

c) The Students

There is a tendency among curriculum implementers to ignore the role of students as agents of change. Increasingly, there is the realization that even primary school students can contribute to meaningful change. Many educators strongly argue that just as teachers must accept a new program for making it to be successful, students must be willing to participate in the program. If students see little relevance in the curricular

activities planned they are not going to be motivated to participate, or learn. Ideally, we want students to react with heightened interest, with enthusiasm (Orinesten and Hunkins, 1998). Students are the third human factors that curriculum implementation is influenced by.

On the other hand, Posner (1992, p.192) stated that "the extent to which student possesses academic skills and background knowledge is the major determinants of success or failure of a curriculum." Sometimes, there might be a pressing need to participate in a student on the design stage of a curriculum so that the implementation shall be successful. In supporting this Fullan (1998) mentioned that student participation in the designing phase of a new curriculum determines the success or failure of implementation because implementation comprises a change to the role relationship between teachers and students.

Scholars stress on the role of students in curriculum improvement. Burrell (1988) suggests that the participation of students for curriculum improvement is not for mere democratic principles, but students have the potential to serve as important sources of data that assist to identify the merits and demerits of an educational program. Students also point out what skills, knowledge and values are included in the curriculum to bring the expected behavioral change in the surface. The student body using such instruments like the questionnaires could identify the weakness and strength of curriculum, Pupils, thus may speak out whether or not they have noticed any meritorious skills, knowledge, and values that are designed to bring the behavioural change (Burrell, 1988).

d) The Supervisors

The process of curriculum must be supervised by persons who are assigned to do so. Frequently, supervision is important, especially at the level of implementation but in fact, the entire process of curriculum development needs to be supervised. The supervisor facilitates implementation by providing directions and guidance for implementing the curriculum and makes sure that teachers have the skills to carry out

the implementation process and needs to schedule more supervisors teacher conferences and more in-service training for such staff members to deliver the new curriculum (Ornestin and Hunkins,1998).

Ronald Doll (1974) points out that supervisors have their major tasks in facilitating curriculum implementation through (1) monitoring the action of professionals to see that those purposes are adhered to in the delivery of the program (2) furnishing democratic instructional leadership and (3) keeping channels of communication within the school and the community open to facilitate implementation.

Supervisors assume leadership roles in the places of improving the curriculum. Educators such as: Dull (1981) states that the most important functions of supervisors are to serve as a resource leader. He/she is expected to provide relevant information, practical guides, and academic assistance for the committee. It is also expected of a supervisor to occupy leadership roles in assisting teachers maintain and augment their professional abilities.

2.2.3.1.2 Implementation Strategy

The success of implementation may be assured of the dissemination was effective and specific strategies are followed during implementation. Scholars in the field of curriculum suggest with some evidence that the following strategies and tactics are important for implementation. These are in-service training (depending on the type), availability and use of instructional materials (time, materials, etc.), open and clear communication between staff members, and participation in decision making (depending on the nature and timing). Moreover, scholars make clear that these factors are interactive in the sense that they may be mutually reinforcing over time.

a) In-Service Education

A teacher to be able to do his/her professional responsibilities, the level and quality of training would matter. In this regard, Creemers (1992) maintains that if teachers are so important in the instructional process and responsible, more or less for the outcome of

education, then they should receive in means (training) to fulfill their tasks in a self-confident and competent professional way.

According to International, Bureaue of education (1993, p.2), before the new curriculum is put into effect it is necessary to arranging in-service training, which is one of the common strategies of implementation. As mentioned earlier, the teacher is a chief agent of educational reforms, and there is a need to introduce a refresher course prior to the implementation of the reform. Erkyehun et al. (1991) in their work provide further confirmation regarding the significant influences of training on the quality of teaching. These educators have shown that training teachers is one of the means to promote the quality of education. It is not only pre-service training but also in-service training is an essential aspect. So to develop the intellectual, moral, and physical qualities as well as professional knowledge and skills of teachers or to be effective in teaching and keep up-to-date with the subject matter, teachers should be always acquainted with changes in pedagogical and curriculum contents.

The importance of in-service training arises from the realization that many implementation programs failed because of inadequate staff development opportunities. This leads to frustration and undercuts implementation.
Patterson et al (1980) identified two main areas of staff development: "re-education and re-socialization." The former refers to "the development or refinement of competence necessary to implement the innovation." It involves training in teaching ideas and behavior for a new curriculum. The latter refers to "the development or refinement of roles and role relationship required for implementation. This means according to them, changing interactive skills, attitudes, and habits related to the implementation of the curriculum. In short, it appears to be an agreed-upon fact that intensive staff training is a useful strategy for implementation.

Generally, the contribution of in-service training to successful curriculum implementation has been documented by many other writers and researchers. Many of these documents clearly show that, orientation and training should be given to those people who are directly or indirectly involved in curriculum implementation. Refresher

courses of different types would help teachers to become aware of their unforeseen shortcoming of their classroom teaching techniques. This may also help teachers to carry out the courses of instruction in the way suggested by curriculum developers.

Therefore, manpower training both short and long-term courses, workshops, seminars and other similar orientations might strengthen effective curriculum implementation. On the other hand, failure to arrange such in-service programs would likely affect their effectiveness in curriculum implementation.

b) Resource Support

A plan for an educational program cannot be fully implemented in the absence of resource support. So, different kinds of support are needed for implementation process. Resources could be financial, time, materials or human. The availability and usage of instructional materials and other facilities are important factors of implementation strategy that need to be considered by curriculum planners and policy makers. A plan for an educational program cannot be fully implemented in the absence of resource support. With regard to this Fuillan and Pomfret (1977) explain that preparation of textbooks, spacing of classrooms, structural alteration, etc. should be designed and prepared according to the planned curriculum.

Instructional materials also constitute curricular materials such as textbooks. Callahan (1966, p. 216) noted that the textbook is a systematic arrangement of subject matter to assist teachers teaching particular content to students at a specific grade level. Together with textbooks, curriculum guides are also important for curriculum implementation. Posner (1995) noted that the syllabus included the goals and or rational for the course, topics covered, resources used, assignments, giver and evaluation strategies recommended. Similarly, Dorthick (1953, p.229) indicated that curriculum guides generally means a statement of what is to be taught, or it may be said that the curriculum guide is a statement of scope and sequences of the curriculum. Moreover, those doing curriculum work need to have samples of current instructional materials available. Curriculum workers should have access to the best professional books in the fields in which they are working. These provide general background, suggest new

approaches, list up-to-date materials, stimulate creative thinking and give the points of view of recognized leaders in the various fields (Krug, et al, 1956, p. 247-248).

Therefore, curricular materials are useful in curriculum implementation for they provide guidance for the teaching- learning process. The extents to which different materials are adequately available determines their wise use in instruction, and limits the degree to which the curriculum plan could be implemented.

c) Open and Clear Communication

For n effective implementation of curriculum, communication channels should be opened among teachers, students and school principals. Regarding this Ornstein and Hunkins (1998, p. 295) noted that when a new program is being introduced, ca communication channel ust be kept open so that the new program comes not as a surprise. This means that a frequent discussion about a new program among teachers, principals and curriculum workers is a key for successful implementation. Snyder et al (1992:417) noted that the greater the quality and quantity of sustained interaction among people involved in curricular activities, the greater the degree of implementation. Similarly, Fullan (1991) indicated that the most collegiality, trust, and interaction between teachers, the grater is the degree of implementation.

2.2.3.1.3. Participation in Decision Making

Another important variable related to implementation strategy is teachers' participation in the designing level of the curriculum, Patterson et .al (1980) indicated that it is not possible to assume that teachers will implement a new curriculum successfully if they are not understood it because two-way communication is necessary among those involved in implantation. Teachers' participation in decision-making is vital since it develops a sense of belongingness and commitment to implement a new curriculum (Hall, 1995).

Teachers' involvement in curriculum development activity is assumed crucial for many authors. McNeil (1990) and Fullan and Pomfret (1977) also pointed out that active involvement or participation of teachers in decision making during the curriculum

development process (in developing guides and materials) is more important in persuading teachers to implement plans or increase the likelihood of successful implementation. In a well-rounded and insight, the full small books about the teacher's role as a curriculum planner, Harnack also lists three areas that demand teacher's participation in decision making: Staff utilization, Reorganization of subject matter areas and the development of instructional materials (Herrick and Harnak, Quoted in Saylor, 1982, p. 151). Having similar idea Oliva suggests ways in which instructors need to participate in curriculum decision-making process as follows:

> Teacher carryout activities in curriculum when they write curricular goals and objectives, select subject matter (content), choose materials, identifying resources in the schools and community, sequence or resequence the subject-matter, decide on the scope of the topics, or course, revise the content, decide on types of instructional plans to use, construct the plans, try out new pattern (Oliva: 1997, p. 56).

Similarly, scholars such as Carl (1993; 16) noted that the teacher must not be a mere implementers but development agent who is able to develop apply, and [evaluate] the relevant curriculum dynamically and creatively. Therefore, teachers need to be knowledgeable about curriculum and understand the processes by which curricula may be developed.

From the above illustrations, we can observe that the implementation of educational change is strongly influenced by teachers' perceptions of and attitudes towards a specific change. These perceptions are not static but change and evolve during the change process. The teacher must play a more significant role in designing the curriculum. Teachers must be involved and participated in curriculum planning and development so that they can implement and modify the curriculum for the benefit of their learners.

2.2.4. Curriculum Evaluation

Evaluation the broadest term includes not only the process of determining what the actual educational outcomes are and of comparing them with the expected outcomes, but it involves judgments about the nature and desirability of any demonstrated

changes. Judgments of this kind obviously bear directly on educational objectives. Evaluation is the systematic process of collecting and analyzing data in order to determine whether, and to what degree; objective have been or being, achieved. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process (Kuset and Rist 2004:12).

To Patton (1986), the practice of evaluation involves the systematic collection of information about the activities, characteristics, and outcomes of programs, personnel and products for use by specific purpose to reduce uncertainties improve effectiveness and make decisions with regard to what those program, personnel, or products are doing and affecting. Likewise, Thorpe (1993) defines evaluation as collecting, analysis, and interpretation of information on any aspect of a program of education/training as part of a recognized process of judging its effectiveness, efficiency and any other outcome it may have. The above definitions view evaluation as a process of gathering information, analyze the collected data and arrive at a conclusion, whether the program requires revision, major changes or total changes or discontinues the program.

Curriculum evaluation differs from other kinds of educational evaluating in it focus upon how teacher and student interact over a particular curriculum or syllabus. Curriculum evaluation involves an examination of the goals, rationale and structure of a teacher's curriculum, a study within the context in which the interaction with students occurs and an analysis of the interest, motivation and achievement, of the students experiencing a particular curriculum (Marsh, 1995).

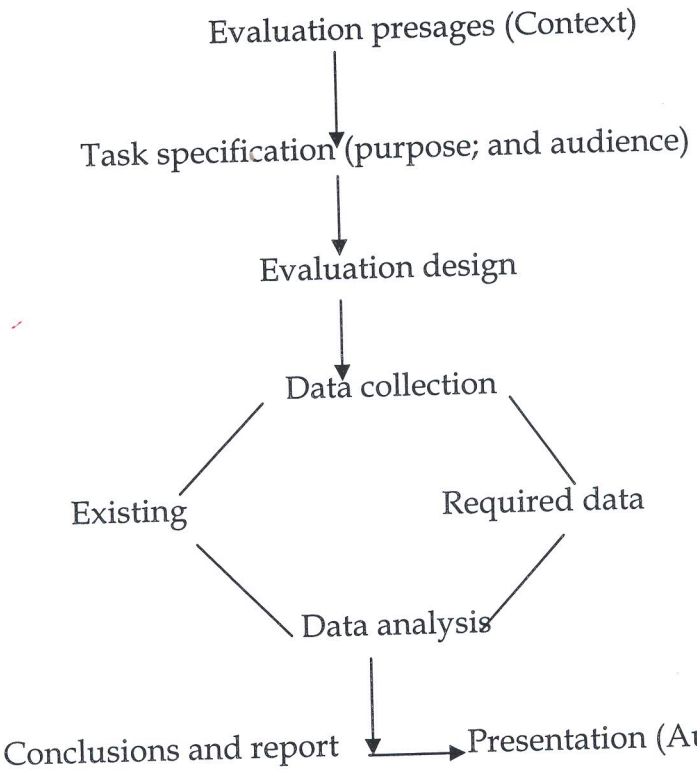
Curriculum evaluation or assessment may be understood as a broad and continuous effort to trace its effects in terms of content and feasibility towards the achievement of defined goals. In this regard, on the one hand curriculum evaluation comprises evaluation or assessment of curriculum as such. It examines the adequacy of the curriculum for the learners, to what extent the curriculum enables or prevents effective teaching and learning. On the other hand, curriculum evaluation explores the process of monitoring and measurement of learning achievement in classroom

practice, that is to say, the support given for the success of the pupils supplemented by suitable measurement following the formative assessment of the student.

2.2.4.1. Functions of Curriculum Evaluation

Print (1993) points out that functions of evaluation perform to collect, analysis, and interpretation of information about any aspect of a program of education/training as part of a recognized process of judging its effectiveness and efficiency and. He stated curriculum evaluation algorithm as follows:

I. They provide feedback to learner.
II. Determine how well learners achieved the objectives.
III. Provide information to improve curricula.
IV. Assist learners with decision making
V. Classify the stated objectives
VI. Assist others in making decision about students.



Source: Print (1993)

Figure 2: Curriculum evaluation algorithm

2.2.4.2. Forms of curriculum Evaluation

To the effect of satisfying those purposes the use of both formative and summative evaluation is recommended. Scriven, Quoted in Lewy (1977, p. 12) made a distinction between formative and summative evaluation. Both can be conducted to provide information necessary for effective decision making.

a) Formative Evaluation

The term 'formative evaluation' was originally coined by Scriven (1973) to classify evaluation that gathered information for the purpose of improving instruction as the instruction was being given. A **formative evaluation** is an evaluation that looks into the ways in which the program, policy or project is implemented, whether or not the assumed 'operational logic' corresponds with the actual operations and what (immediate) consequences the implementation (stages) produce. This type of evaluation is conducted during the implementation phase of projects or programs. Formative evaluation was considered to be an integral part of instructional design and delivery. In our curriculum context, formative evaluation can be considered to be the process that looks for evidence of success or failure of a curriculum programme, a syllabus or a subject taught during implementation.

b) Summative Evaluation

This type of evaluation assesses whether or not the project or programme can perform as the originators and designers intended. A **summative evaluation** *(outcome/impact evaluation)* is conducted at the end the programme cycle to determine the extent to which anticipated outcomes were produced, and an impact was realized or not. Summative evaluation is intended to provide information about the worth and the impact on the program. It considers the cost effectiveness in terms of money, time and personnel. It also assesses the training that teachers might need in order to implement a program successfully. It determines whether a new curriculum programme, syllabus or subject is better than the one it is intended to replace or other alternatives.

Formative and summative evaluations can take place wherever an evaluation exercise is conducted. They can be conducted on educational projects and programmes existing in the curriculum or on the teaching of individual subjects in the school systems.

2.2.4.3. Curriculum implementation evaluation

The concept of "curriculum evaluation" and "curriculum implementation evaluation" are used ambiguously in early literatures. However, in the area of evaluation research these terms need to be clarified for they call different meaning in recent literatures. With this regard, Talmage and Scriven as cited in Ornstein and Hunkins (1998, p. 320-322) made a clear distinction between the two. Curriculum evaluation refers to the study of the curriculum plan or the document itself. As to them, curriculum evaluation is concerned with examining the adequacy of the objectives with prescribed goals, the consistency between the objectives and the contents of instructional materials, and the significance to the content itself. But curriculum implementation evaluation addresses the question of whether what is planned in the curriculum document is put into action or use, or to what extent the intended plan is translated into work. Therefore, curriculum evaluation and curriculum implementation evaluation are two different but interrelated activities. Generally, implementation evaluation is designed to serve to provide information on the practice implies by the innovation by identifying those conditions, under which implementation is likely to success.

2.3. Curriculum Research

Many scholars recognized the need for new skills, especially in research. According to Obanya, Shabani and Okebukola (1996, p.26) among the core goals of a higher institution is to extend the frontiers of knowledge through research. The academic staffs of the institution are in most cases, given the mandate to pursue this goal. Thus, aside from teaching, the institution expects its academic staff to be activity engaged in research. We take research here to mean the process of inquiry leading to the solving of a problem. Having similar idea Denmark (1974, p.167) states that the college teacher should himself engage in research, which is both thorough and relevant to the teaching

responsibilities. Mceil, Quated in Behar (1974, p.17) a point out that curriculum research is an activity used for:

- Advance conceptualist ions and understanding of the field
- Create new visions of what and how to teach, influence curriculum policy
- Question normative premises about curriculum and Improve programs for learning.

The future of research depends on the successful training of researchers, which is best done at the university level. Unfortunately, however, there are indications that universities and colleges have not yet managed to produce adequate research personnel and to equip them with sufficient training in research methodologies (Derebssa, 2000, p.39). From the above discussions, we can see that curriculum research has been considered as one of the domains of any education colleges. However, this notion can be attributed to the availability of better capacities and facilities for undertaking curriculum research.

2.4. Some Problems of Curriculum Development

Problems of curriculum arise from many sources. In some instances, the deviation of the goals of education from the actual needs and problems of the learner and the society results in an irrelevance curriculum. In other words, one of the sources of irrelevance in the curriculum of developing countries is the discrepancy between the intention of the schools and the demands of the society through the schools (Urevbu, 1992, p.127).

Another source of problems of curriculum is an importation of foreign educational experience without attempting to adapt it to the actual conditions of the developing countries (Aeth, 1978 and Lewy, 1977). It has been described that the gap between the activities of the school, and the demands of real life become very wide in several cases where educational programs are prepared by foreign experts or are merely translations of foreign programs without considering the local needs and problems (Lewy, 1977, p.253). This has proven true in several countries. If we take the case of Ethiopia, curriculum development has been subject to foreign educational experience that Ethiopian education is criticized as being irrelevant tot eh needs throughout the country (Tekeste, 1991).

2.5. The Practice of Curriculum Development in Ethiopian National Defense Force.

2.5.1. Pre - 1991

The history of officer training institutions in Ethiopia is relatively new. So, in fact, is the history of the professional Ethiopian Army. Notwithstanding the rich ancient cultural and historical heritage of Ethiopia, its regular army, as such, was formally constituted just shortly before Fascist Italy's invasion of the country in 1935. The concept of a professional standing army is, therefore, a relatively new development for Ethiopia (Harar Military Academy, 2012).

The Army officer's military training school, as a formal institution, was formed just before the coronation of Emperor Haileselassie I between 1929 and 1935, a Belgian military mission trained and equipped a small Palace Guard. That force was later dramatically transformed into a well-equipped and staffed officer training school (Imperial Body Guard). In the face of an imminent threat posed by an Italian invasion, Haileselassie I established a Military Training School at Holeta Genet (44 kilometers west of Addis Ababa) with Swedish assistance in 1935 (Pankhurst, 1963, p. 122-123). The Genet Military Training and the Imperial Bodyguard Training Schools were the oldest army officer training schools of their kind in Ethiopia's history (Bahru, 1991). However, The Italian invasion and interlude temporarily halted the growth of Haile Selassie's infant modern military force.

The Holeta Military School was also re-opened after 1941 with a staff of British instructors (until 1951). In 1953-1957 a US Military Assistance Advisory Group trained various branches of the Ethiopian security forces. In addition, the Haile Selassie I, Military Academy was opened in 1957 in Harar (525 kilometers east of Addis Ababa), and was managed and staffed by Indian army officers until 1971. This higher learning institution provided a three-year course for cadets in military science as well as academic subjects (Berouk, 2002).

The Harar Military Academy and the Holeta Military School operated after 1977, trained cadets for commissioning as regular officers with the rank of second lieutenant.

Afterwards, they received specialized training at technical schools operated by the infantry, artillery or armor branches, and strengthened by Soviet or Cuban instructors. These schools emphasized "preparation for the supervision of technical personnel responsible for maintaining Soviet-supplied weapons, communications equipment, and electronic gear" (DoA, 1991).

During the Derge Regime, in addition to the military school and the academy, other temporary training centers were established. The Armed Forces Command and Staff Academy were one of those training centers; the Armed Forces Command and Staff Academy were set up in 1987 in Addis Ababa (Béla). However, the main foci of military training then were the quantitative provision of manpower or numerical aspect of coping with the protracted wars that the regime was engaged in and these Academies were founded to produce officers who lead the army primarily organized to safeguard only the interests of the ruling classes and therefore, they couldn't sustain their existence. As a result, both the Holeta, Harar and Bela Military Academies were collapsed upon the downfall of the Dergue Regime. In view of this and other finding discussed above, it follows that considerable the curricula of the Military academies as well as the Military training centres of the country were:

- Shaped based on the then prevailing western and/or eastern outlook.
- The developed curriculum was highly influenced by the foreign military concept, hardily related to the realities of the country and military concept oriented.
- These Academies curriculums were also intended to serve only the interests of the ruling regime more than the national needs.
- The Military training system had problems with quality, equality, efficiency and relevance;
- Main foci of Military training then were a quantitative provision of manpower.
- The provision of professional education and training as well as the training of professionally committed officers who could play decisive roles were very weak and stumpy.

2.5.2. Post 1991

The trend of post 1991 Military training and education started with these problems which is led to a constant and series of changes in the Ethiopian Military Education and training system in general and curriculum, in particular. The new Ethiopian Ministry of National Defense (MoND) was more committed than ever to modernize its Defense capabilities. The demand for strong and dependable Defense power is higher than ever. Thus, by strong armed forces mean, the country requires qualitative, creative, effective and efficient, well experienced, educated, trained and technology-oriented military power. Hence, to satisfy these needs, the role of higher education in the military profession is indispensable. From this point of view, provision of education and training programs that would enable to build the capacity of the existing military power of the nation is found to be an important and timed issue.

According to The training Main Department five years strategic plan, the period between 1991 to 1998 The TMD plays a key role in strengthening the capacity of the Ethiopian Defense Force by producing competent and committed personnel's (MoND, 2008). Thus, though the commitment is strong, the academic and provisional qualification of the nation's armed forces is not satisfactory as compared with the level of the modern technological advancement, and the education and training curriculum were still depended upon the above some constraints. Hence, to ensure the quality and relevance to cope-up with its rapid changes to the field, continuous assessment and updating all Defense military collage's curriculum is vital.

Hence, besides strengthen and upgrade the qualification of its personnel, the TMD tried to modify the entire training curriculum started with new and basic military training up to technical and higher leadership education and training program. The curriculum materials, especially curriculum translation (English to Amharic and Russian to English or Amharic), textbooks and teachers' practical guidelines, etc. were prepared by selected the Defense military personnel since 2002 (TMD, 2005).

officers, out of whom 24 were friendly African countries. Currently, the fifth and sixth batches were ongoing. Officers who join the EDCSC should have a different academic background, experienced in leading units at different tactical levels and knowledgeable on administer resources and other inputs of Military profession on their level. Nominated by regional and Air force Command and approved by the Chief of General Staff (COGS). The officers who have successfully completed the program will be awarded a *Bachelor's Degree in Military Science and Leadership* upon graduation.

Combined Arms Academy (CAA) is the other sleeted college for this study. The CAA was established in 2007, which is located in Awash Sebat (250 kilometers east of Addis Ababa). The role of the Combined Arms Academy is to meet the demands for tactical level officers who can serve as commanders and planners at the tactical level operations. It produces efficient and competent tactical commanders who can lead, prepare and command Mechanized and Motorized tactical level units. The curriculum of the Combined Arms Academy comprised of four major component areas, which are included Military leadership and specialized courses (CAA, 2007).

The main admission requirements of the college are: Officers who have served in a position at regiment command level or with a rank of Major and LTC, Who Have good personal and performance record; High school graduates who completed preparatory program or minimum of college diploma graduates from recognized public or private institutions; Be Nominated by his command and approved by the next higher command. CAA has so far, graduated three courses with a total of 85 higher and medium officers. Currently, the fourth and fifth batch students were ongoing. A graduate of the academy will be awarded with a degree which is read as "Bachelor of Military science in command and staff."

The last, research setting of this study is Major General Hayelom Araya Military Academy (MGHAMA). It is the oldest and the only cadet Academy in the country which was re-established in 2002, at Holleta (44 kilometers west of Addis Ababa). The main objective of re-establishing this Academy is to produce qualified military officers

who would effectively safeguard the FDRE Constitution and serve at the lower-level leadership in different units and positions in the Army. Upon its re-establishment, the Academy initially launched its program to offer a three-year diploma (10+3 TVET) program and under this program; the Military Academy has graduated three batches with Diploma and two batches with degree in Military Science and Leadership. As per the increased demand of the Ministry of National Defense for highly qualified lower level military leaders and the progressively growing training capacity of the Military Academy, the level of the program has been promoted to first degree level in 2009 (MGHAMA, 2008).

The MGHA academy admission criteria were: Army member who has aged less than 28 years; Have good personal and performance record; High school graduates who completed preparatory program from recognized public or private institutions and be able to pass the entrance Examination. Until now, MGHAA has been graduated five batches with a total of 691 officers, out of whom 14 were from African countries. Currently, the third and fourth batch degree program students were ongoing.

From this point of view, afterwards the TMD's colleges and academies have been functional; between 2004 to 2010, each college and academies has graduated three batches(minimum) regular courses based on previous and developed curriculum and two other batches students are also ongoing in each respective college. Apart this, to meet the MoND and stakeholder's intents they have been redesigned and developed their curriculum at least three times.

During the developed process, some of the problems considered as 'bottlenecks' affecting the practice curriculum development of TMD's college were described as follows:

- The curriculum lacked necessary domains in preparing the graduates to strengthen the dynamic nature of knowledge, skill and attitudes.
- Some of the courses do not reflect the needs of the Army and the National Defense missions.

- ❖ Lack of important aspects of a standard curriculum, like quality control assessment and change of duration of the courses.
- ❖ The contents of the curriculum both in Military academies and colleges were found over loaded by more academic oriented.
- ❖ Since there were no specific profiles set for students at different levels.

Accordingly, in order to alleviate the problem mentioned above, The TMD had arranged to revise the current curriculum of all its colleges; It arises based on the high interest of the Ministry of National Defense.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Research Design

This study deals with the practices of curriculum development, implementation and evaluation in Ethiopian Defense Training Main Department. The approach of the study is mixed, quantitative supported by a qualitative approach. A mixed methods design is useful when the strengths of both quantitative and qualitative research can provide the best understanding for research problem (Cresewell, 2009). For the purpose of this study, a descriptive survey research method was employed. Koul (1996) states that descriptive method helps to give general understanding about the problem by studying the current status, nature of prevailing situations, practices and trends through relevant and precise information. Based on this, the descriptive method was used to describe the implementation of curriculum development and implementation practices in Defense TMD.

3.2. Data Sources

In this study, both primary and secondary data sources were used to gather adequate information on the practice of curriculum development and implementation at TMD colleges. The primary sources of data were available and accessible resources of both persons and materials. Resourceful personnel such as instructors, deans, and students of the TMD selected colleges were primary sources of data. Furthermore, the secondary sources of data include books, journals, reports, relevant periodicals, and some relevant documents inside and outside the colleges' understudy.

Information collected from the teaching staff and deans of the college under study were given a prime importance, as they were the prime actors in the teaching - learning process. This was because of the assumption that the instructors and deans have relatively good deal of knowledge about the area of investigation.

3.3. Subjects, Sampling Techniques and Procedures

The sample areas of the study were colleges and academies who taught Military Science and Leadership (MSL) in Ethiopian Defense TMD. According to the information obtained from MoND, there are seven colleges and academies that are offering degree and Diploma programs in Ethiopian Defense Force. In order to assess curriculum development and implementation practices in TMD, three colleges were purposely selected from the total of seven colleges and academies. The selected colleges were: Ethiopian Defense Command and Staff College (EDCSC), Combined Arms Academy' (CAA), and M/G Hayelom Araya Military Academy (MGHAMA).

To collect the required information, the researcher used 86 (97%) available teaching staff by using availability sampling technique. All colleges' deans and instructors were included because the number of the subjects was limited. Vanderstoep and Johnston (2009, p. 49) state that availability sampling involves selecting people who are available or convenient for the study. Furthermore, in order to bring about different facets in the discussion of the state of students' participation, from the three selected colleges out of the total 230 students 125 (55%) students were selected by using simple random sampling technique. Simple random sampling technique was preferred because every member of the sample population will get an equal chance to be selected.

As indicated below in Table 1, the subjects of this study, therefore, include 86 teaching staff (72 instructors filled questionnaires, 6 college deans and commandants - interview, 8 TMD curriculum section members - FGD) and 125 students filled questionnaires. Totally, 211 participants are the subjects of this study.

Table 1: The Subjects of the Study

Institute	Number of participants & tools						Total
	Questionnaires		Interview			FGD	
	Instructors	Students	Dean	Commandant	TMD cur. head	TMD members	
TMDcurr. Section	-	-	-	-	01	07	8
EDCSC	12	29	01	01	-	-	43
CAA	32	38	01	01	-	-	72
MGHAA	28	58	01	01	-	-	88
Total	**72**	**125**	**03**	**03**	**01**	**07**	**211**

3.4. Instruments of Data Collection

The desired information for the study was obtained through different instruments. To obtain adequate information for the study, questionnaire, interview, focus group discussion, observation, and document analysis were employed. The use of different instruments proved to be helpful to facilitate triangulation of information from the different sources. This multi-method approach reduces the chances that any inconsistent findings are attributable to similarities of methods (Cohen and Marian, Quoted in Lewin and Janet, 1991, p.101).

3.4.1. Questionnaire

To examine the extent to which curriculum development and implementation process worked, a set of survey questionnaires was developed. Then, it was administered to available and sample instructors and students respectively who were teaching in three Training Main Department colleges namely, EDCSC, CAA and MGHAMA and and collected. Seventy five and one hundred twenty five copies of the questionnaires were distributed to obtain first-hand information from instructors and students respectively.

3.4.2. Interviews

Interview questions, which have structured and unstructured items were prepared and conducted with seven participants: each of the three selected college deans and commandants and one TMD curriculum department coordinator during different periods of the field work. Some of the questions were similar to those raised in the questionnaires. This was deliberately done to cross check whether what was said by instructors was similar to what was said by interviewees (deans and commandants).

3.4.3. Focus group Discussion

Focus group Discussion was employed in this study for the reason that it is the best means to get information about group attitudes and feeling through active discussion of individuals within the group (Merriam, 1988). In the FGD, seven informants who were assumed to have detail information about the TMD curriculum development practice were involved. The FGD took place on 17/01/12 and a tape recorder was used.

3.4.4. Document Analysis

Document analysis was also used to gather necessary information on the practice of curriculum development in the TMD colleges. Best and Khan (1989, p.25) had noted that document analyses are important and relevant sources of data, and useful in yielding information and exploring educational practice. The study also examined the relevant archives that are related to the Institute (MoND training policy, history or establishment, TMD five years strategic plan, each college's curriculum, etc.).

3.4.5. Observation

Observation was used for the study. Besides, the overall context of the selected colleges, the libraries, the availability and the adequacy of facilities necessary for developing curriculum development and classroom facilities were observed. These helped the researcher to have rich and well rounded information on the issue under study.

3.5. Procedures of Data Collection

First questionnaires and interview were developed. Then, in order to establish validity, the proposed questionnaires were given to 5 instructors and 10 students for tryout or pilot. After the tryout, each instrument was carefully examined, improved and selecting methods that made ready for final data collection.

Then in the actual field study the improved questionnaires were distributed. In line with this, before collecting the data the participants were informed about the objectives of the research. Then the questionnaire, focus group discussion and an interview were administered. Furthermore, documents that show process of curriculum development and implementation were studied. In addition to this, during observation checklist, the availability and adequacy of instruction materials which are necessary for curriculum development were checked. Finally, analysis and interpretation made by the researcher.

3.6. Method of Data Analysis

Depending on the nature of the research questions and data that were collected, different statistical techniques were employed. Data collected from closed-ended questionnaires were fed into the Statistical Package for Social Sciences (SPSS) computer Program and analyzed with five-point Likert scales quantitatively in terms of frequency, mean and percentage, standard deviation, independent sample *t*-test and *chi*-square. On the other hand, the information, which was gained from open-ended questionnaires, interview questions and focus group discussion were analyzed qualitatively. The data were interpreted and analyzed against the leading questions.

Once the collected information was studied, they were grouped and categorized based on their similarities and differences. The grouping and categorizing of information were used to identify and put similar ideas together. Different ideas that are not grouped with other categories are also analyzed and presented. By doing these, the collected information was presented interpreted, and concluded.

CHAPTER FOUR

PRESENTATION AND ANALYSES OF DATA

Chapter 4 deals with the presentation, analysis and interpretation of the data gathered through questionnaires, interview, group discussion and document analyze. It is assumed that the data obtained from three colleges' deans, Commandant, instructors and TMD Curriculum coordinator at Ethiopian Defense Training Main Department would give sufficient ground to conclude the curriculum development and implementation process in EDTMD's colleges.

The Chapter comprises two major parts. The first part presents the characteristics of the sample population involved. Part two deals with the analysis and interpretation of the main data.

4.1. Background Characteristics of the Respondents

Seventy five and 125 copies of the questionnaire consisting of close ended and open-ended items were distributed to the available instructors and sample students respectively. From these, 72 (96%) of the instructors and 120 (96%) of the students questionnaires were properly filled and returned, and 8 copies were not returned. The background characteristics of instructors (n=72) and students (n=120) who completed properly and returned the questionnaires were indicated hereafter.

Table 2: Background Information of Instructor Respondents

	Item	Colleges						Total	
		EDCSC		CAA		MGHAMA			
1	Sex	F	%	F	%	F	%	F	%
	Male	12	16.6	32	44.4	28	38.8	**72**	**100**
	Female	-	-	-	-	-	-	-	-
	Total	**12**	**16.6**	**32**	**44.4**	**28**	**38.8**	**72**	**100**
2	Age								
	25 & below	-	-	-	-	-	-	-	-
	26-35 years	2	3	2	3	8	11	**12**	**16.6**
	36-45 years	8	11	25	35	17	23	**50**	**69.4**
	46-55 years	2	3	5	7	3	4	**10**	**14.0**
	Total	**12**	**17**	**32**	**45**	**28**	**38**	**72**	**100**

It can be depicted from Table 2 that all the respondents (100%) of Ethiopian Defense Training Main Department college's instructors are males. Responses obtained from deans of the colleges showed the reason why female military instructors did not join in the college and confirmed that there was no particular reason, most of the females were working and participating in the Institute on the other fields. From the responses of the informants, one can possibly understand that female's participant in TMD Colleges as instructors are non-existent.

The same Table item 2 reveals that 12 (17%) of instructors ages were between 26 and 35 years. The majority (69%) of the respondents were between the group of 36 to 45 years. The rest 10 (14%) participants also were 46 and above years. Part of this tabulated figures regarding age (i.e. frequency and percentage values) the majority of EDTMD college's instructors were in the same are range and matured. Thus, in view of this, we conclude that they can give relevant answers to what they were asked.

Table 3: Level of Qualification and Years of Service of Instructor Respondents

Variables	Categories	No	Percent
Academic level	Diploma	10	14.0
	BA/BSc	50	69.4
	M.A/ M.S.c	12	16.6
	PHD	-	-
	Total	**72**	**100**
Years of service as Instructors	0-2	23	32
	3-5 years	18	25
	6-8 years	19	26.3
	9-11 years	8	11.1
	12 years and below	4	5.6
	Total	**72**	**100**
Total years of service in MoND	6-10 years	3	4
	11-15 years	20	27.7
	16-20 years	9	12.5
	21 years and above	40	55.5
	Total	**72**	**100**

With regard to the academic level of the respondents, 12 (16%) of the instructors were with MA/MSC qualification, 50(69%) of the instructors were with BA/BSc qualification, and 10 (14%) of the instructors were with diploma qualification (who are teaching in CAA and MGHAA). According to the information obtained from the interview most of the instructors attending on the job correspondence second degree and first degree programs respectively in abroad and local universities. In addition, the same data reveal that none of the respondents TMD instructor's graduate qualifies at Ph.D. level.

This data also discloses that the distributions of second degree holding qualified instructors were found to be low. According to the standard for Higher Education Institute, a college with a diploma program should have pattern of teaching staff with 10% Ph.D, 50% M.A/M.Sc. and 40% BA/BSc (MOE, 1995:9). Hence, this indicates that there might be a need for the continuation of instructor's training and upgrading efforts held by the TMD.

In the same Table showing the teaching experience of the respondents, the observed data indicate that 47 (68 %) of respondents, had teaching experience above two-year services as an instructor in their respective college and academies. When one compares the majority of the instructors, therefore, most instructors appeared to have relatively long years of work experience, so that it could be said the longer experience, they have, the better possible chance they get to participate in curriculum development.

Regarding total years of instructors' service in MoND, the majority (73%) of instructors had 16 and above years of service experience in MoND, and 20 (23%) of them had service experience between 11-15 years. Hence, it is possible to say that the majority of participants are well experienced in Defense Institute. That is the more the instructors get experienced, the more they perform their activities effectively.

Table 4: Background Information of Students Respondents

Item	*Colleges*						*Total*	
	EDCSC		*CAA*		*MGHAMA*			
1 Age								
25 & below	-	-	-	-	6	5	**6**	**5**
26-35 years	8	6	12	10	35	28	**55**	**44**
36-45 years	14	11	15	12	15	12	**44**	**36**
46-55 years	8	6	11	9	-	-	**19**	**15**
Total	**30**	**24**	**38**	**31**	**56**	**45**	**124**	**100**
2 Academic level								
12th and below	-		35		35		**70**	**56**
Diploma	25		15		15		**52**	**42**
BA/BSc	8		11		-		**2**	**2**
Total	**30**	**24**	**38**	**31**	**56**	**45**	**124**	**100**
3 Total years of service								
5 years and below							**4**	**3**
6-10 years							**37**	**29**
11-15 years							**44**	**36**
16-20 years							**39**	**31**
Total	**30**	**24**	**38**	**31**	**56**	**45**	**124**	**100**

Table 4 shows that 56 (45%), 38 (31%), and (30) 24% of students were from MGHAMA, CAA, and EDCSC respectively. It can be depicted from the Table that the number of samples selected from each college is almost proportional to each other with slight differences. With regard to age distribution among the students, the majority 55 (44 %) and 44 (36%) of the respondents were between twenty- six to thirty -five and thirty six to forty-five years respectively. The rest 15% and 16% of participants were between 46 and 50, and 26 to 35 years respectively.

The same Table explains qualification of students in each respective college. Accordingly, the majority (56%) of students complated their high school education, the rest 42% of students had diploma in Military or social science and 2% had first degree in the different field of study.

Regarding year's experience, Table 4 also shows that 37 (29%) and 44 (36%) students had between 6 and 10, and 11 and 15-year service experience respectively. The remaining 39 (31%) students had above 16-years service experience in MoND. Hence, part this tabulated figure regarding age, qualification and experience (i.e. frequency and percentage values) the majority of EDTMD college's students were in the same range, matured and well experienced. Thus, in view of this we conclude that they can give relevant answers what they asked.

4.2. Analysis and Interpretation of the Data

This part deals with the analysis and discussion of the data gathered through different instruments on the practice of curriculum development and implementation process. In this discussion, the whole data which were found in different instruments have been discussed and analyzed under each of the six research questions, which are raised in chapter one.

4.2.1. The Model Used to Develop Curriculum development for TMD colleges

In developing a certain program/curriculum, there are different models to guide the process based on philosophical perception, values given to education by educators, etc. Among the different models, the objectives, situational and the process models were discussed within the review of literature.

The Model that was used to develop curriculum development at TMD colleges was presented to respondents through interview and FGD that they were required to discuss the process of constructing the curriculum model in each college and academies.

With regard to the model used to develop the curriculum of Ethiopia Defense Training Main Department (EDTMD), it is found that the Department practices has been related the Tyler's objective model. This is found out during the interview and focus group discussion with deans and TMD curriculum section respectively. Among the informants, one of the respondents explained that:

> *...in the process of developing the curriculum what we did was, first the need /Interest of Defense was assessed then based on the need, we stated the different college's objectives, and contents were selected based on the stated objectives.*

According to the above informant, the activities done by the curriculum developers are similar to the objectives' model approach, which is before they select objectives and contents, needs were assessed. Regarding the model used in developing the curriculum of TMD colleges, two of the informants (I_5 and I_6) explained that:

> *....there is no clearly or explicitly identified model used in developing a curriculum for TMD College. What we know and used in our case was that the curriculum for each college was developed based on the fact that it should be student-centered and problem-solving approach. We did not know and even we have not heard about the model of developing a curriculum (Dec 28, 2011).*

In the Focus Group Discussion, most of the informants responded that based on the analyzed interest /needs/ of the Ministry of Defense, the curriculum objectives of were stated first. With regard to this, one of the informants explored that the stated objectives were used as a guide line to design the curriculum. According to this respondent, the

objectives played a leading role in selecting contents and methods in the curriculum process. Another informant (I_4) also explained that:

> *....I have no idea about what model we used, but what we did was, first we tried to assess the need of the MoND, so that problems were identified after that we set objectives. Once the objectives were stated, the next step was selecting the contents of the courses (Dec 3, 2011).).*

The document analysis, too, did not show any tangible evidence about the models used to develop the curriculum for Defense education beyond personal opinion.

From the above discussion, it is possible to understand that contents and methods were selected based on stated objectives. And this process is more or less similar with the objective model because, according to Tyler (1949); Taba (1962); and Shindu and Omulando (1992) the objectives' model of curriculum development is based upon the objectives that are stated at the very beginning. In this connection, Felake (1990:34) indicates that to attain its end result an educational program must be planned and developed systematically using a curricular development model of one kind. According to the advocators of this model everything starts by formulating objectives that are going to be attained at the end of a certain program.

On the other hand, it is not clear whether the respondents have factual evidence signifying that the TMD really follows a certain working model for its curriculum development activities. From the responses of most of the informants and document analysis, it seems that there is no explicitly identified model used in developing the curriculum for EDTMD Colleges and Academies.

In general, from the above discussion of the informants and from the document analysis, even though, it seems that no explicitly identified model used in developing a curriculum, it is possible to understand that the objective model is used to develop the curriculum of EDTMD's colleges.

4.2.2. The Existence of Rules and Regulations

The other question put to the deans was "to give their response, whether there is an operational set of rule, regulation, or principle that governs the range of curriculum

development process or not." All the respondents answered "No." During the interview, one of the teacher respondents replied:

> *We have no rule and regulation in our academies that govern the development and design of curriculum. What we did in practice was after the end of the academic program some modification and revision routinely followed.*

In contrast, Short (1988:5) states that, publishing the new set of curriculum policies and authorizing the redevelopment of curriculum plans and practice are obligations that routinely follow after the formulation of policy statements by decision makers in higher education. These acts serve to legitimate and direct the work that must be followed in developing and designing the curriculum of higher education.

Generally, the question of rules and regulations which concern curriculum development in the higher-education program seems to be a major issue. In the absence of clearly defined curricula purposes, the objectives of the colleges' program tends to become a series of disconnected and unrelated tasks that trainees are expected to master. Hence, to improve student teachers learning the objectives of Defense colleges must include rules and regulations for review and modification of curriculum in general for identifying objectives, selecting and organizing contents and learning experiences, for evaluating educational outcomes and finally for conducting curricular research, in particular.

4.2.3. The Stages of Curriculum Development

An interview was made with the college commandants and deans to give their responses regarding the stage of curriculum development process at EDTMD colleges. Among the informants, one of the respondents (I_1) explained that:

> *First, need assessment was made by the TMD and its colleges. Based on the need assessment the objectives were developed. Next to this, the content was prepared by the colleges' academic staff in collaboration with curriculum experts of the AAU. Taking the contents as a framework of the curriculum for Defense education and based on the objective situation, we adopted the syllabus and prepared text books from the syllabus (Dec 28, 2011).*

Concerning the process of curriculum development, the Focus Group Discussion (FGD) participants also expressed that:

> *....Since 2005, the Training Main department colleges were developed and revised their curriculum at least three times. The process was initiated and coordinated by TMD collaborate with each colleges academic staffs and external educators. When we developed the first two curricula, we began from the need assessment of MoND mission/interest, Based on the need assessments, we established temporary curriculum development team(include some instructors, college commands, educational experts), and then the college objectives were set out and evaluated the existence curriculum, discussed, comment on and modified (improved) the curriculum. On the first time we designed the curriculum collaborative with curriculum experts from the AAU. It helps us to share experience how the curriculum been developed. Next, In the process of preparing text books and manuals, military professionals from foreign experts, some instructors from TMD colleges and; college's commands were participated.*

In contrast, Shinudu and Omulando (1992), suggested a more detailed curriculum development process with nine stages. Almost all the informants who participated in the study agreed that the process of curriculum development for TMD education and training started by assessing the needs of the stakeholders. Based on the need assessment the objectives were developed. From this discussion, one can understand that though TMD's colleges curriculum development process followed most of the process stages; however, it failed to reflect all curriculum development nine stages which are explained by Shinudu and Omulando (1992):—situation analysis, formulating an objective, Setting up the curriculum, program building, piloting (feedback), improving, implementation, evaluation, and maintenance.

4.2.4. Stakeholders' Involvement in the Curriculum Development Process

In principle, curriculum development is not an activity of a single individual or few individuals. It rather needs the involvement of many parties in the process of developing it. For attaining educational objective's different parties like teachers, students, administrators, etc. in addition, curriculum experts should be involved (Pratt 1980, and Ornstein and Hunkins 2004). A better educated and trained force requires continuous education that involves every military stakeholder who enhances the

curriculum to broaden their experience and become appropriate for the needs of a new operational environment.

To evaluate the level of stakeholder involvement in TMD's colleges, questionnaire and interview were raised for the instructors and deans respectively. The levels of stakeholder involvement were presented to respondents through questionnaires that they were required to rate the level of involvement of the stakeholder based on a five-point Likert scale. These five-point scales range from very high (= 5) to very low (= 1). Mean scores were calculated from the responses. Besides, responses from the interview were used to validate the findings during the process of presentation and analysis of data.

Table 5: Stakeholders' Involvement in the Curriculum Development Process

Stakeholders	Level of Involvment									*Mean*
	V.high	High		Moderate		Low		Very low		
	No	No	%	No	%	No	%	No	%	
MoND Head Quarter	-	6	8	15	21	21	29	30	42	1.95
MoND Main Departments	-	-		-		17	23	55	77	1.23
MoND Regional commands	-	-		9	12	43	60	20	28	1.84
TMD Academies & colleges	-	22	30	41	57	9	13	-	-	3.25
Defense University	-	-		-		10	14	62	86	1.13
Students including (Alumni)	-	-		-		46	64	26	36	1.63
MoND research center	-	-		-		-		72	100	1.00
Local Educational experts	-	22	30	38	53	12	17	-	-	3.13
Foreigner Military professional	-	24	33	32	44	16	23	-	-	3.11

As can be seen from Table 5, the majority (57%, 53%, and 44%) of the respondents answered that TMD academies and colleges, local educational experts and foreigner military professional respectively participated in moderate level in developing curriculum. The mean scores of the above three stakeholders were 3.25, 3.13 and 3.11. This reveals that these stakeholders were moderately involved in developing the curriculum process. Whereas, as the table revealed that in the developed process, the

other stakeholder's participation average rating mean was between 1:00 to 1:95 which is indicated low level involvement. Regarding the stakeholders involved in the development of curriculum for EDTMD colleges, one of the respondents explained that:

> *Between 2005-2010, the stakeholders' involvement in developing the curriculum for EDTMD colleges, included only foreign military experts, local curriculum experts from AAU, and the colleges commands and some of the teaching staff's members. Most of the external and internal stakeholders such as: MoND head officials, MoND commands, and Units, MoND Main Departments, Defense research center and all instructors, etc. were not actively participated in the process of curriculum design and development process (Dec 28, 2011).).*

Related to this, another informant also explained that:

> *At the first time, the curriculum development team was composed of different individuals with different background. There were some Defense members, who trained in Military science in different countries, Foreign military experts, and Some AAU curriculum experts were involved throughout the process (Jan 01, 2012)*

The focus group discussion and interview participants also shared similar idea with the above two informants. On the other hand, the following interview question was also raised to one of the informant, "whether or not the curriculum of TMD's colleges devised and revised without the consultation of instructors." The informant said that:

> *Curriculum revision has been done between 2005-2010 by involvement of respective TMD college's educational experts, foreign military professional and some selected instructors. However, currently the new TMD's college's curriculum development process: modifications, verifications and arrangements were conducting with the participation of the overall TMD's instructors and commands with the collaboration of other stakeholders in Defense Institute.*

In line with this point, Short (1988:6) indicates that, organizing for curriculum revision is an important initial task. Because all decisions cannot be wisely and efficiently handled by one body, there is a need to incorporate official groups at work on sub-tasks or components of the overall program as well as a central group authorized to direct, coordinate, and approve the work of the entire development process.

With regard to stakeholder involvement, the "MoND Training policy" document analysis confirmed that the Training Main department (TMD) has responsibility to

participating all concerned stakeholders in the design and development of the curriculum of the Ministry of National Defense higher education and training institutes (MoND,2005).

In contrast, the TMD document analysis also proved that, between 2005 and 2010, the practice of curriculum design and development process was conducted only by some TMD college's instructors, AAU curriculum experts and collaboration with foreign military professional (TMD, 2005).

From the above discussion with the informants and the document analysis made; it is possible to understand that all concerned Ethiopian Defense education and training centers' stakeholders were not involved in designing and development the college's curriculum within the specified time (2005-2010). This, therefore, indicates that there was a problem in developing the curriculum in TMDs' colleges. Such revision, however, can only be conducted by participation of the entire instructors in collaboration with other concerned MoND internal and external stakeholders. This has been taken care of since 2011.

4.2.4.1: Instructor's Participation in Curriculum Development

As said earlier, curriculum development is not a duty of a single individual; instead, it needs the participation of different groups. Among the different groups, instructors play an important role. Shinudu and Omulando (1992: 220-221) describe that teachers' role should not be limited to only in effecting the planned curriculum, but they should also play their significant roles in developing the curriculum. They also explained that due to the ignorance of instructors' participation in curriculum development, many curriculum projects failed in Africa. This part deals with the discussion from the data gathered through questionnaires on the participation of instructors in curriculum development.

Table 6: Level of Instructors Participation in Curriculum Development

Items	Alternatives	Instructors responses	
		No	%
To what extent have the instructors been involved in curriculum development process since 2005-2010	Very high	-	-
	High	6	8
	Moderate	10	14
	Low	56	78
	Very law	-	-
	Total	**72**	**100**

The data in Table 6 shows that a large proportion 56 (78%) of the respondents agreed that instructor's participation throughout the curriculum development process was low. Only 6 (8%) and 10 (14%) of respondents indicated that instructors highly or moderately participated in the process. According to, H. Taba (1962) those who teach or implement the curriculum should participate in developing it. This implies that the college instructors have the responsibility to participate in developing the curriculum. In line with this issue, almost all the informants who participated in the interview and FGD have agreed that instructor's participation is important for effectiveness of the program.

However, as can be understood from the data given above (Table 6), most of the instructors did not participate in the developing the curriculum held in their respective colleges. This shows that The TMD not effectively played an important role to be all the instructor's part of the curriculum development process, instead only involved some military instructors and educational experts inside and outside its colleges.

4.2.4.2: Student's participation in Curriculum Development

Scholars stress the role of students in curriculum improvement. Students, particularly at high education should participate actively in curriculum development, implementation and improvement effort since they are primary consumers of the curriculum.

This thought is more relevant to Defense education and training activity. In Defense higher education and training activity, most of the trainees had more experience and

had participated in different operational and tactical mission in which the country was engaged. Hence, respondents were requested to enlist information on whether or not there were occasions when students have been consulted, made suggestions about aspects of the design and development of the curriculum when they were learning in the TMDs' colleges.

An independent-samples t-test was conducted to compare the student's involvement throughout the curriculum development process. The participation of students on curriculum development and evaluation was presented to respondents through questionnaires that they were required to rate the level of students' participation on the basis of a five-point Likert scale. These five-point scales range from very high (= 5) to very low (= 1). Mean scores, standard deviations and t-test results were calculated from the responses.

Table 7: Student's Participation in Curriculum Development

	Item	Respondent group	N	Mean	SD	Mean Diff.	t-test	p-value	95% Confidence Interval D.	
									Lower	Upper
1	Participation on curriculum planning and development	Teachers	72	1.94	0.47	-0.53	5.42	0.00	-0.72	-0.33
		Students	120	2.48	0.74					
2	Participation on curriculum evaluation	Teachers	72	2.38	0.81	-0.18	-1.41	0.15	-0.42	0.06
		Students	120	2.56	0.85					
	Average	Teachers	72	2.16	0.64	-0.71	4.01	0.07	-0.57	-0.13
		Students	120	2.52	0.79					

From the data in Table 7 items 1, the mean scores of teacher and student respondents were (M=1.94, SD=0.47) and (M=2.48, SD= 0.74) respectively. Hence, the data revealed that both groups of respondents explained students' involvement in the curriculum development process is low. The t-test result with p-value of 0.00 < 0.05 indicates that the two groups of respondents significantly differ in their average agreement with the item. In the same way, the calculated t-value (5.427) which is greater than the t-critical

value (1.96) confirms that there is statistically significant difference between the students and teachers in rating the level of students' involvement of in the curriculum development process: $t(190) = 5.427$, $p < 0.05$. This indicates that teachers have very low level of agreement to the item than the students. That is, students' response indicates that students' participation was low.

As it is indicated on item 2 in Table 7, the computed mean scores of teachers and students on students' participation on curriculum evaluation was 2.38 and 2.56 respectively, with mean difference of -0.18. The t-test result with p-value of $0.15 < 0.05$ indicates that there is no statistically significant difference between the responses of the two groups towards the item. In the same way, the calculated t-value (1.41) which is less than the t-critical value (1.96) confirms that there is no statistically significant difference between the responses of the two groups of respondents. This indicates, both groups of respondents considered that students' participation on curriculum evaluation is low.

In contrast to this, Burrell (1988) suggests that the participation of students for curriculum improvement is not for mere democratic principles, but students have the potential to serve as important sources of data that assist to identify the merits and demerits of an educational program. Students also point out what skills, knowledge and values are included within the curriculum to bring the expected behavioral change in the surface. In supporting this, Fullan (1992, p. 78) points out that "student participation in the designing phase of a new curriculum determines the success or failure of implementation because implementation comprises change to the role relationship between teachers and students." What one can infer from this is that there is a tendency among a TMDs curriculum developers to ignore the role of students as agents of change. Students are simply indoctrinated with the already set curriculum about which they make no efforts to its improvement.

4.2.5: Factors affecting Curriculum Development and Implementation process

4.2.5.1 Teachers as factor

This part deals with the discussion from the data gathered from respondents on the availability of an adequate number of qualified teaching staff in TMD's colleges. The questions were presented to respondents through questionnaires that they were required to rate the level of qualified teaching staff as the basis of a five-point Likert scale. These five-point scales range from very adequate (= 5) to very inadequate (= 1). Mean scores, standard deviations and t-test results were calculated from the responses.

In addition, responses from the interview were summarized to validate the findings during the process of presentation and analysis of all data. In the Table below, an independent sample *t-test* was conducted to compare the relationship between teachers and students responses about the availability of adequate number of qualified teaching staff.

Table 8: ***Availability of Capable and Adequate Number of Qualified Instructors***

	Item	Respondent group	N	Mean	SD	Mean Diff.	t-test*	p-value	95% Confidence Interval D.	
									Lower	Upper
1	Availability of adequate number and qualified teaching staffs	Teachers	72	2.76	0.59	0.64	5.83	0.00	0.428	0.866
		Students	120	2.12	0.82					
2	Mix of academic staff	Teachers	72	2.49	0.76	0.52	4.59	0.00	0.301	0.754
		Students	120	1.96	0.77					
	Average	Teachers	72	2.62	0.68	0.58	5.21	0.00	0.364	0.81
		Students	120	2.04	0.79					

As shown in Table 8 items 1, in rating the adequacy level of the availability of adequate number and qualified teaching staffs, the average mean scores rating by teachers and students are (M=2.76, SD=0.59) and (M=2.12, SD=0.82) respectively revealed that both groups of respondents had low level of agreement to the availability of adequate number and qualified teaching staffs in their respective colleges.

The t-test result with p-value of 0.00 < 0.05 indicates that the observed difference between the respondents is statistically significant. The data further revealed that there was statistically significant difference between the two groups of respondents with t-value (5.831) which is greater than the *t*- critical value (1.96) at $\alpha = 0.05$; $t(190) = 5.831$, $p < .05$. This shows that teachers have relatively high level of agreement to the availability of adequate and qualified number teaching staffs than the students who support low consideration.

The same data in Table 8 item 2 indicated the mix of academic staff in terms of specialization and experience. Hence, the mean scores of the teacher and student respondents were M=2.49 and M=1.96 respectively. The t-test result with p-value of 0.00 < 0.05 indicates that the two groups of respondents do significantly vary in their average agreement with the item. The Group Statistics revealed that the Mean for the teachers was greater than the Mean for the students. The results indicate that there is a statistically significant difference between the mean writing score. Hence, the data revealed that both groups of respondents gave low level Mix (in terms of specialization, experience) of academic staff.

In connection to this, the calculated *t*-value: $t(190) = 4.59$, $p < .05$ Which is more than the *t* critical value (1.96) confirms that there is statistically significant difference between the responses of the two groups of respondents. This indicates that teachers consider that the existence of mix of academic staffs relatively high level than the students who support low consideration.

Teacher's knowledge about the curriculum is the main factor for implementation. Particularly, the 21st century military operations must be based on quality, not quantity, at every grade level. Hence, the teaching role requires putting students in difficult, unexpected situations, and then requiring them to decide and act under time pressure. To cope with this difficulty, instructor's knowledge, experience and competencies are central in Defense curriculum implementation. Concerning this point, a number of studies carried out in different countries have documented that the instructor is pivotal for the success or failure of curriculum implementation. Regarding this, McCormick

and James (1981, p.48) note that: "teachers are knowledgeable and have the necessary qualification; they will be in a good position to teach their best.

Regarding this issue, the document analysis also assures that,

> *In all the Training Main Department colleges, there lacks a sufficient number of qualified academic staffs who can effectively implement the existing curriculum. Most of the trainer's knowledge and experience are limited on technical training (TMD, 2005).*

The discussions with the focus groups and interview participants also disclose that the TMD's colleges lacked qualified teaching staff in terms of number and quality. Similarly, teachers were asked to give their responses, whether instructors have experience and qualification in the relevant aspect of curriculum development or not. Seventy-nine percent of the teacher respondents responded that they did not have any experience in the relevant aspect to the curriculum development process; whereas 21 % of the teacher respondents replied that they have experience in the relevant aspect to the curriculum development process. Therefore, from this it can be understood that there is lack of instructor's awareness or understanding about the issue of curriculum development and its various practices.

From the above explanation of the informants and the document analysis, it is possible to understand that the unavailability of qualified instructors and their knowledge about the courses they teach is a problem to implement the curriculum successfully. Regarding the vital role teachers should play in curriculum implementation, Shiundu and Omulando (1992, p.213) stated by saying: "In *curriculum implementation various personnel are involved, but perhaps the one whose role is most important in seeing that the programs are successfully implemented is the teacher.*" Particularly, the Military education needs a sound foundation balanced in theory, knowledge, and practice experience. Lack of sufficiency in terms of number and the quality, specialization, and experience of the academic staffs have immense influence upon the quality of the output.

Besides, it is an obvious fact that instructors would not successfully develop and revise a curriculum, if they don't have the knowledge and understanding about the curriculum. Thus, this entails a clear message for curriculum developers; that is, the need to consider the status of the instructor in curriculum development.

4.2.5.2 The College Commands as factors

All the respondents who were participated in the interview, and FGD were asked about the role of the college commands in making conditions suitable for teachers and college community to implement the college curriculum. Almost all of respondents similarly confirmed that the college commands are trying to create favorable situations for their instructors and the community in order to encourage the efforts of these groups in the implementation of the program.

The college commands play key role for the betterment of the curriculum. In connection with this, many scholars argue that college leaders, principals/ directors and administers play a crucial role during the process of curriculum implementation. Regarding this, Cox (1983: 162) expressed his view by stating, "leaders should make the school situation favorable enough for teachers and school community to promote the efforts of these groups for solving problems related to curriculum."

One of the participants explained that:

> *The Commands of the college try to coordinate and support teachers to implement the program effectively. They also try to communicate and discuss with teachers and community members and facilitate things for successful implementation of the curriculum.*

Another participant (I_3) also said,

> *The college commands are always supportive and helping in every aspect." He further explained that, their leading role includes the overall management of curriculum procedures, the day to day operational control of curricula matters, the evaluation of curricular out comes, and they also make the necessary support for the college in general and to implementation of the curriculum, in particular.*

From the above finding, it can be said that commands of the colleges are the key persons in creating the desirable environment in curriculum implementation in the

TMD institutions. The results reveal that the TMD's college commands have tried to encourage teachers and college community members by creating favorable situations and providing the necessary supports for those who tried to implement the curriculum effectively.

4.2.5.3 Supervisors as factors

The process of curriculum must be supervised by persons who are assigned to do so. Frequently, supervision is important, especially at the level of implementation but in fact, the entire process of curriculum development needs to be supervised.

A chi-square test was performed to compare the difference between students and teachers response rating regarding the TMD monitoring and supervising practice. The responses regarding Training Main Department monitoring and supervising activity illustrated below in table 9.

Table 9: The TMD Monitoring and Supervising Activity

	Item	Res	Count	Responses			Total	*Chi-* Value*	*p-* value
				Not at all	Rarely	Frequ.			
1	How often The Training Main Department's supervisors conducted Regular monitoring and supervising the colleges teaching learning process?	T	N	19	41	12	72	6.52	0.038
			%	26.4	56.9	16.7	100.0		
		S	N	47	65	8	120		
			%	39.2	54.2	6.7	100.0		
		Total	N	66	106	20	192		
			%	34.4	55.2	10.4	100.0		
2	How often the college dean/ command conducted Regular monitoring and supervising the colleges teaching learning process?	T	N	4	43	25	72	7.74	0.021
			%	5.6	59.7	34.7	100.0		
		S	N	17	80	23	120		
			%	14.2	66.7	19.2	100.0		
		Total	N	21	123	48	192		
			%	10.9	64.1	25.0	100.0		

* 0 cells have expected count less than 5. The minimum expected count is 7.50 and 7.88 respectively.

As shown in Table 9 item 1, the majority of teachers (57%) and students (54%) respond confirmed that TMD supervising practices were rare. However, a relatively higher proportion of teachers (17%) tend to say frequent practice of TMD monitoring and supervising compared to only 7% of students' responses. In the contrary, higher number of students, 39% tend to say that monitoring and supervising is non-existing practice, which is similar to the view of 26% of teachers.

A *chi*-square result with p-value of 0.038 < 0.05 confirms there is statistically significant difference between the responses of the two groups of respondents in rating the frequency of monitoring and supervising practice by TMD. The p-value (0.038) which is less than the alpha level .05 proves that there is statistically significant difference between the responses of the two groups of respondents: χ^2 (2, N = 192) = 6.52, p < 0.05. This indicates that even though the responses of both groups of respondents differ level of agreement with item 1, the majority of respondents (55%) confirmed that TMD regular monitoring and supervising practice of the teaching teaching-learning process low. Similarly, the data obtained from interviews made with deans revealed that TMD rarely conducted regular monitoring and supervising practice.

Item 2 in the same Table shows that the majority of teachers (59%) and students (66%) response confirmed that college commands were rarely supervising the teaching-learning process. However, a relatively higher proportion of teachers (34%) tend to say frequent practice of TMD monitoring and supervising compared to 19% of students' responses. In contrary, higher numbers of students (14%) tend to say that monitoring and supervising is non-existing practice, which is dissimilar to the view of 6% of teachers.

A chi-square result confirms there is statistically significant difference between the responses of the two groups of respondents in rating the frequency of monitoring and supervising practice by college commands. In similar, The p-value (0.021) which is less than the alpha level .05 proves that there is statistically significant difference between the responses of the two groups of respondents: χ^2 (2, N = 192) = 7.74, p < 0.05.

This indicates that even though the responses of both groups of respondents differ level of agreement with item 2, the majority respondents (64%) confirmed that the college commands regular monitoring and supervising practice of the teaching-learning process rare.

Generally, based on the above responses it is sound to conclude that performing regular supervising and monitoring to serve as a resource leader for colleges to check the curriculum implementation and improvement and provide to it that their comment center for the improvement of instruction. Thus, supervise the teaching-learning process conducted by TMD's supervisors and colleges commands, appreciated.

On the other hand, relatively a significant number of supervisors did not actively supervise the college curriculum implementation activity. This implies that the supervisors did not create opportunities for teachers to discuss with supervisors for curriculum implementation and improvement.

4.2.5.4: In - Service Training as a Factor.

To evaluate the practice of research and in-service training in TMD's colleges, the questionnaire and interview were raised for the instructors and deans respectively. The questions were presented to respondents through questionnaires that they were required to rate the practice of research and in-service training as the basis of a five-point Likert scale. These five-point scales range from very high (= 5) to very low (= 1). Besides, responses from the interview were used to validate the findings during the process of presentation and analysis on the data.

In-service education is advice for the improvement of the curriculum by changing methods, developing curriculum materials or simply introducing new ideas. Regarding this, Lewin and Janet (1991:104) stated that short in-service courses designed to expose teachers to new methods and techniques in classroom instruction, became an established phenomenon in curriculum implementation. These activities enable teachers to upgrade their academic qualification and attain professional competence.

Table 10: Teachers In-Service Training and Educational Research Practice

	Item	Alternatives	Teacher responses	
			No	%
1	To what extent instructors taken in-service training in the area of curriculum implementation	High	4	6
		Moderate	20	27
		low	46	64
		Very low	2	3
	Total		*72*	***100***
2	The TMD facilitate conditions for teachers to get in-service education	High	4	6
		Moderate	17	23
		low	45	63
		Very low	6	8
	Total		**72**	**100**
3	To what extent instructors undertake educational research particularly, in order to improve the curriculum	High	-	-
		Moderate	-	-
		low	14	20
		Very low	58	80
	Total		**72**	**100**
4	To what extent the college or TMD urge instructors to undertake educational research	High	-	-
		Moderate	-	-
		low	18	25
		Very low	54	75
	Total		**72**	**100**

Table 10 item 1 depict that the majority (67%) of respondents said that the existences of in- service training in the area of curriculum issues were very law. One of the teacher respondents said that "we were not taken in- service training before the revised curriculum is put into effect." The rest of the respondents 24 (33%) responded that they have taken in- service training by using workshop, seminar and panel. Therefore, one can understand from this that the existences of in- service training in the area of curriculum issues in TMD's colleges were law.

Besides this, The TMD has a dual role. The first to these is to act as administrative with the purpose of ensuring that the training system works efficiently. The second major role of the TMD, however, is to improve the performance of instructor by offering professional encouragement and whatever in-service training so as to do the job effectively. With regard this, as shown Table 10 item 2 illustrate 61 (71%) of the

instructor respondents agreed that the TMD did not create facilitative condition for such efforts, while the rest 21 (29%) of the instructors reported that TMD played a role to serve as an agent to create such possibilities.

Looking that the results from the study, we may conclude that discrepancies between instructor's participation in the curriculum development process can be minimized if greater attention is given to in-service training in the form of seminar, workshop discussion and the like. The importance of in-service training arises from the realization that many implementation programs failed because of inadequate staff development opportunities. In line with this, the statement by Pratt (1983: 431), explained that *"in-service training helps teachers to exchange ideas, demonstrate techniques, prepare materials and solve problems, and develop the knowledge, skill, and experience for the improvement of the or curriculum."*

On the other hand, the TMD did not create opportunities for teachers to discuss for curriculum development and implementation by preparing educational workshops, conferences, seminars, etc. Therefore, it implies that TMD is not facilitating of their responsibilities by arranging in-service training, which is one of the common strategies of curriculum implementation. In addition, conducting educational research may link a process of curriculum development and instructor's development as one and the same enterprise. That is to say, instructors develop the curriculum and themselves through carrying out curriculum research.

It views of the above, Table 10 item 3 observed that 58 (80%) of the instructors reported that they did not carry out research activities, where as only one fifth 14 (20%) of the respondents answered that, to some extent, they were involved in conducting educational research. Likewise, the same Table item 4 depicts that 18 (25%) of the instructors reported that the TMD effort in such activity is very low. Besides, the overwhelming majority 54 (75%) participating replied that there was no any efforts made by the TMD/colleges to promote instructors to be undertaken educational research.

Furthermore, the information gained from the interview, one of the college deans confirmed that though teachers are expected to conduct research, there is no any suitable condition to conduct educational research because the teaching load and shortage of budget are the main hinders of instructors to carry out educational research.

Regarding the importance of instructors' involvement in research, Tisher and Widen (1990: 225) point out that "*It has become popular in recent years, and not without some cause, to view the research involvement of college teachers as an obstacle to their serious commitments to teaching rather than as a support of good teaching. Yet in many ways the teacher educator's involvement in research is essential.*"

Teachers were asked to give their responses, whether the TMD's colleges have responsible section for curriculum development and research activity or not. Eighty-three percent of the teacher respondents responded that there is no any responsible section for curriculum development and research activity in their respective colleges. In contrast to this, 17% of the respondents replied that the existence responsible section for curriculum development and research activity.

Looking that the results from the study, we may conclude that the unavailability of the curriculum development and research center was affected on the TMD's college teaching-learning process, particularly to promote the curriculum relevance to an "Ethio-centric" course based on the unique Ethiopian situation and to built Ethiopian Military doctrine and science, the existence of the research center is not evitable.

4.2.5.6: Instructional Resources as a factor

This part deals with the discussion of the data gathered from respondents on the availability of instruction resources in TMD's college/academies. To assess the availability of instructional materials both respondent groups were asked to give their ratings regarding instructional material's items as presented in Table 13 below. In this table, the average agreement level given by the two respondent groups regarding each item is computed and presented with statistical t-test results.

The availability of instructional materials was presented to respondents through questionnaires on the basis of a five-point Likert scale. These five-point scales range from very adequate (= 5) to very inadequate (= 1). Mean scores, standard deviations and t-test results were calculated from the responses. Besides, responses from the interview were summarized to validate the findings during the process of presentation and analysis of all data in each close-ended item as necessary.

Table 11: The Availability of Instructional Resources in the TMD Colleges

	Item	Respondent group	N	Mean	SD	Mean Diff.	t-test*	p-value	95% Confidence Interval D.	
									Lower	Upper
1	Collection of Reference books related with the given courses	Teachers	72	1.88	0.83	0.00	0.06	0.94	-0.24	0.26
		Students	120	1.87	0.89					
2	Reference materials related with curriculum development	Teachers	72	1.10	0.29	-0.49	4.25	0.00	-0.72	0.26
		Students	120	1.59	0.95					
3	Availability of Organized Textbooks and module for overall courses	Teachers	72	2.31	0.91	-0.04	0.31	0.75	-0.32	0.23
		Students	120	2.35	0.96					
4	Availability of Different reference materials	Teachers	72	2.15	0.74	-0.20	1.75	0.08	-0.43	0.02
		Students	120	2.36	0.80					
	Average	Teachers	72	1.86	0.698	-0.18	1.59	0.44	-1.71	0.77
		Students	120	2.04	0.90					

**significant at α 0.05 level, t-critical value (1.96) df= 190*

In rating the adequacy level of collection of reference books in Table 14 item 1, the mean scores of the teachers and students respondents were (M=1.88, SD=0.83) and (M=1.87, SD= 0.89) respectively. The *t*-test result with *p* of 0.94 > 0.05 shows that there is no statistically significant difference between the responses of the two groups of respondents. Similarly, the calculated t-value (0.06) which is less than the t-critical value (1.96) at $\alpha = 0.05$, $t(190) = 0.064$, p & 05; confirms that there is no statistically significant difference between the responses of the two groups of respondents. These values

indicate that both groups have been feeling of inadequacy of reference books related with the given courses.

In the same Table item 2, the calculated mean scores of the two groups were (M=1.10, SD=0.29) and (M=1.59, SD= 0.95) respectively, with mean difference of 0.49. Hence, the data revealed that both groups of respondents gave low level availability of reference materials related with curriculum development. The t-test result with p-value 0.00 < 0.05, so we can conclude that the observed difference between the respondents is statistically significant. In line with this the calculated t-value (4.25) which is greater than the t- critical value (1.96) at $\alpha = 0.05$; $t(190) = 4.258$, $p < 05$; confirms that there is statistically significant difference between the responses of the two groups of respondents. This indicates that teachers do feel higher level of inadequacy of curriculum development reference materials than the students. This shows reference materials related with curriculum development was low even though the degree of agreement by the teachers is lower than that of the students.

With regard to item 3 in Table 11, the mean scores of the teacher and student respondents were (M=2.31, SD=0.91) and (M=2.35, SD= 0.96) respectively with mean difference of 0.04. The Group Statistics box revealed that the mean for the teachers was closer to the mean to the students. This indicates that no significant difference between the two groups average responses. The data further confirmed that there was no statistically significant difference between the two groups of respondents with the t-value (0.315) which is less than the t- critical value (1.96) at $\alpha = 0.05$; $t(190) = 0.315$, p >.05. These values indicate, both groups equally feeling that the availability of organized textbooks and module to overall courses were inadequacy.

Similarly, as depicted in Table 11 item 4, the calculated mean value of the teachers and the students were (M=2.15, SD=0.74) and (M=2.36, SD= 0.80) respectively revealed that both groups of respondents had low level of agreement to the availability of different reference materials. The t-test result with p-value = 0.08 is greater than alpha level of .05 (p-value= 0.080>0.05), also prove that the two respondent is statistically no significant. In addition, the data confirmed that there was no statistically significant difference

between the two groups of respondents with *t*-value (1.758) which is less than the *t*-critical value (1.96) at $\alpha = 0.05$, $t(190) = 1.758$, $p > .05$. Consequently, it was considered that there is no real difference between the respondents of teachers and the students in terms of their low level of harmony regarding the availability of different reference materials in TMD's colleges. Furthermore, the information gained from the interview, and observation also confirmed the above idea. The two informants, I_4 and I_7 explained their view almost in the same way. They said:

> *The collection of books in the library is not directly related to the given course. Most of the collection book focuses on other country military thought and concept. On the other hand, some of the instruction materials are bulky and non attractive to inspire reading interest and some of them also are not well organized in their contents and methods. In addition to this, we couldn't find relevant reference materials that help us in developing the curriculum materials.*

The observation also made by research about the availability of instruction material in the respective libraries confirmed that except, some Amharic Field Manual (FM) and guidelines, there is no any Ethiopian Defense conceptualized related books and modules, which can help for the students and instructors as a reference. In contrast, this, Krug et al. (1956:247-248) points out that "*curriculum developers and implementer should have access to the best professional books in the fields in which they are working. These provide general background, suggest new approaches, list up-to-date materials stimulate creative thinking and give the points of view of recognized leaders in the various fields*"

From the above discussion and observation made, it is possible to understand that though there is the discrepancy from one college the other, the present atmospheres for the availability and collection instructional resources, particularly library resource, in the TMD's colleges' libraries are very weak. Therefore, analyze looking that the results from the study, we may conclude that, the extents to which different materials are not adequately available determines their unwise use in instruction, and limits the degree to which the curriculum plan could be implemented. Instruction materials are useful in curriculum implementation for they provide guidance for the teaching- learning process.

4.2.6: The Evaluation Mechanisms of the Curriculum

The process of evaluation is essential to determine to what extent the educational objectives are actually realized. Regarding curriculum evaluation, the interviewees were asked whether evaluation mechanisms were employed to evaluate the curriculum development process or not. The majority respondents responded to some of the evaluation techniques were used to assess the effectiveness of curricular activities in the TMD Colleges. Concerning this question, one of the Informants (I_5) said that:

> *To determine whether the curriculum goals are being carried out and to assess whether the TMD colleges' curriculum is functionally implemented well or not, we carried out both ongoing evaluations during the course and at the end of the course. The entire instructors and students are involved during the evaluation, and we were evaluating the curriculum effectiveness and examine the teaching-learning process as well.*

On the other hand, another informant, I_1 also explained it as follows:

> *In our college, there is no continues curriculum evaluation mechanism. What we did frequently, during each term and the end of the program, we were evaluated the teaching-learning process. Even the college feedback system is not appropriately conducted. Most of the time we performed evaluation based on student feedback about what they taught. However, there is no any mechanism to gain information from graduates (alumnae) and concerning stakeholders about students/trainees effectiveness after graduation.*

The majority of informants share similar idea with an informant (I_1). In similar, the TMD strategic plan also confirmed this idea. The TMD strategic plan notes in this regard "the TMDs' education and training centers have not organized feedback mechanisms that help to recognize and identify the effectiveness of the graduates in their assigned place (TMD, 2005)."In connection this, the MoND Education and Training Policy remark in this regard:

> *All the Defense education and training center should be evaluated Education and training activity during and the end of the training. Furthermore, in each respective college and training center, they should be making use of the feedback mechanism from Defense stakeholders. Both the evaluation process and feedback mechanism should be focused on to develop the training system, teaching methods, and the entire curriculum and training activity (MoND, 2005:9).*

In this regard, Tyler (1949:105-6) points out that if the curriculum materials are good, to examine the adequacy of the objectives with prescribed goals, the consistency between the objectives and the contents of instructional materials, to get information about schemes of work, allocation of a resource, teaching methods, staff development, classroom organization, and to learn whether the products of colleges are successful both formative and summative evaluation techniques seem to be indispensable.

In view of this and other finding discussed above, even though the practices of TMD colleges' curriculum evaluation mechanisms are used both formative and summative evaluation techniques, which are the focus on the day to day teaching-learning process; the practice was not carried out based upon the curriculum evaluation techniques which are stated by Print (1993) curriculum evaluation algorithm (See page 39).

From the responses of the informants and the document analysis, it was observed that though evaluations are performed objectively some cases evaluation mechanisms were ignored. The feedback mechanisms are serving as vehicles for the TMD's colleges to cross flow curriculum information and its better performance that ensures the need of stakeholders, but the overwhelming majority of participants agreed that, the existing feedback mechanism it falls to meet this flow. Consequently, it concludes that to determine whether the prescribed objectives are attained as intended or not is becoming a crucial task for the TMD Colleges.

4.2.7: Major Problems of curriculum development and implementation process.

4.2.7.1: The Relevance of the Curriculum

The interviewees also requested to give their view regarding the prominent factors that had hindered the TMD's colleges' curriculum implementation practices. Common points of their responses have been discussed as follows:

Concerning the major problems encountered throughout the process of Defense education curriculum development in TMD's colleges, one of the interviewee respondents said:

> *The Ethiopian Defense Colleges are expected to provide different level Commanders and Staff Officers with a Military training program that is relevant to the nation operational and tactical environment of Ethiopia Military doctrine and science. Nevertheless, the existence TMD colleges' curriculum were failed to reflect the military doctrine and conceptualizations of the country. It was highly influenced or depends on other country's military concept.*

Another respondent also explained with similar to the above idea. According to him, the main hinder encountered in implementing the TMDs' college curriculums were non-existence of relevant to our context. He further said:

> *Almost the past curriculums were adopted by foreigners from their national interest, and experience, so the TMD curriculum lacks of the Ethiopian Military doctrine, Military science and art. As well as, it was not considering the place of nation where we are.*

The majority informants share similar idea with the above informants. Likewise, Aeth (1978) and Lewy (1977) point out that one of the major sources of problems of curriculum is an importation of foreign educational experience without attempting to adapt it to the actual conditions of the developing countries. On the other hand, the curriculum lacks customization of the course contents to reflect the current need / interest of Ethiopia National Defense. This was clearly indicated in teachers and students respondents through questionnaires.

To assess the relevance to the curriculum with the need of MoND and Ethiopian Defense Military science and doctrine a two-tailed an independent sample *t-test* was conducted based on teachers and students respondent respond through questionnaires that they were required to rate the level of relevance to the curriculum as the basis of a five-point Likert scale.

Table 12: The Relevance of the Curriculum

	Item	Respondent	N	Mean	SD	Mean Diff.	t-test*	p-value	95% Confidence Interval D. Lower	95% Confidence Interval D. Upper
1	The Relevance of the curriculum to the need MoND	Teachers	72	3.41	0.88	0.07	0.49	.62	-0.225	0.375
		Students	120	3.34	1.09					
2	To Relevance of the curriculum tie with Ethiopian Defense Military doctrine	Teachers	72	2.23	1.05	-0.28	1.66	.09	-0.613	0.051
		Students	120	2.51	1.17					
	Average	Teachers	72	2.82	0.96	-0.10	1.07	0.35	-0.419	0.213
		Students	120	2.92	1.13					

**significant at α 0.05 level, t-critical value (1.96) df= 190*

According to the above data analysis, the average mean rating by teachers and students were (*M*=3.41, *SD*=0.88) and (*M*=3.34, *SD*= 1.09) respectively. Hence, the data revealed that both groups of respondents explained that the relevance to the curriculum to the need of MoND was moderate. The t-test result with p-value of 0.62 > 0.05 indicates that both groups of respondents do not significantly differ in their average agreement towards the relevance to the curriculum to the need of MoND. Similarly, our obtained *t*-value (0.49) which is less than the *t*- critical value (1.96) confirms that there is no statistically significant difference between the responses of the two groups of respondents. This shows that there is no real difference between the teachers and the students in terms of relevance to the curriculum to the need MoND.

With regard to Table 12 item 2, the mean scores of the teacher and student respondents showed agreement with their average mean values (*M*=2.23, *SD*=1.05) and (*M*=2.51, *SD*=1.17) respectively. These values indicate both groups have been feeling low level relevance of the TMD's colleges' curriculum with Ethiopian Defense Military science and Doctrine. The computed t-test result with p-value of 0.09 > 0.05 shows that the teacher respondents and student respondents do not significantly differ in their average ratings. This can also be proven by the t-value (1.66) which is less than the *t*-critical

value (1.96) at $\alpha = 0.05$; t (190) =1.664, $p < .05$). This clearly showed that the relevance of the TMD's colleges' curriculum with Ethiopian Defense Military science and Doctrine was low.

The FGD discussion and interview participants also proved the above idea. One of the FGD respondents said:

> *The TMD College's curriculum has lacked clarity of their objective and mission. Even, there is no comprehensible level what they trained. There is overlapped from one college to other; furthermore, the curriculum development practice was less customized with necessary content in preparing the graduates for their mission.*

It views of the above; it was justifiable that the TMD's colleges curriculum was highly depended on foreign Military doctrine and concept. In addition to this, the mission in line with the course content and objectives, relevance to the need/interest of Ethiopia National Defense was weak.

4.2.7.2: Other Possible Factors that affecting the curriculum Implementation

The results summarized in Tables 13 shows the extent to which those factors identified as the major barriers that influenced the implementation of TMDs colleges' curriculum. The data discloses the rank order of ten possible curriculum implementation practices at various levels. Because of the characteristic of the ranking techniques, the values indicated in the rank-order column denotes the numbers assembled in the mean rate column, where the smallest mean rate assumes the first rank within the order of precedence.

Table 13: The Ranking Values of Ten Possible inhabiting factors of Curriculum Implementation Practice

Item	Inhibiting factors	Instructor responses N=72	
		Mean	Rank
1	Poor reference instructional materials	2.8	2
2	Teachers teaching load	6.6	10
3	Poor working environment	4.1	5
4	Inadequacy of pre-service training for teachers	5.2	8
5	Absence of teacher knowledge and competency related with the entire curriculum	2.4	1
6	Poor student admission criteria	4.3	6
7	Poor feedback system.	3.8	4
8	Inappropriateness of the teaching methods suggested in the curriculum.	4.7	7
9	Lack of students background knowledge	3.5	3
10	Resistance to change	5.7	9

As can be seen in Table 16, a list of factors, which are supposed to have an impact on the implementation of TMDs' colleges curriculum are given ranks by instructors. The rank mean value, (M=2.4) indicated that absence of teacher knowledge and competency was the first and most influential factor hindering the implementation in TMD's colleges.

Similarly, poor reference materials and lack of student's background knowledge rating 2.8 and 3.5 mean scores respectively. Particularly, student's background knowledge was also reported that the 3rd the most negative impact of the implementation of the curriculum. This opinion in line with the argument put forward by Posner (1992:192) *"the extent to which student possesses academic skills and background knowledge is the major determinants of success or failure of a curriculum implementation."*

Poor feedback system and poor working environment also reported by teachers as a major factor hindering the implementation. They were ranked 4th and 5th ranks respectively. In line with this, Fullan (1991:67- 73) notes in this regard:

the most collegiality, trust, and interaction among teachers, students and school principals, the grater is the degree of implementation.

On the other hand, those factors like poor student admission criteria, inappropriateness of the teaching methods, inadequacy of pre-service training for teachers, resistance to change, and teacher's teaching load took the lower five ranks denoting the minimal influence they have on the implementation of the curriculum.

The majority of instructors considered that they were not introduced into the design or the revised curriculum before implementation. As a result, some instructors may persist doing what they know before (status quo). This result is in agreement to the statement by Pratt (1980: 431), described this condition by saying, " *if teachers are not supported by in-service training in the form of workshops and continuing education, they will be likely to continue doing what they have done in the past.*" This study, therefore, shows that when the curriculum was designed and implemented the planner should consider the actual conditions and implementation strategy of the curriculum.

The three college instructors, deans and commandants, students were asked to list some of the problems/inhibiting encountered while developing and implementing the college's curriculum. Ninety percent of the respondents replied. Their common responses have been summarized below.

The main TMD's Colleges and Academies curriculum development problem was:

- Lack of clear understanding of MoND intents,
- Lack of awareness and experience of curriculum development,
- Less stakeholder participation,
- Lack of evaluation and feedback mechanism,
- Irrelevance of the curriculum with Ethiopian Defense Military context,
- Unavailability of research center and responsible curricular development section,
- Unavailability of standardized and organized curriculum revised practice.
- Lack of clear rule and regulation on curriculum development practices;

- Lack of budget regarding curriculum development and research and to share experiences of different curriculum experts of different colleges;
- Lack of teacher in-service training
- The curriculum highly depends on the foreign military concept.

Similarly most of the respondents stated that, the widely mentioned curriculum implementation problems were:

- Lack of qualified and competent teaching staffs in terms of number, and specialization that are to meet the existence curriculum.
- Unavailability of reference materials and organized text book related to Ethiopian Defense Military doctrine, science and art,
- Inappropriateness of students' background knowledge with the curriculum
- Unavailability students based on the admitted criteria: lead to poor admitted.
- Poor feedback system.
- Fluctuation problem: the curriculum being changed within one and two years.
- Instructors teaching load: (as a result of, the existence of the small number qualified instructors).
- Resistance from instructors to adapt/accept the new curriculum.
- Inappropriateness of the teaching method.
- Poor language skill.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

On the basis of the analysis and interpretations of the data gathered through the instruments, this Chapter presents the major findings, conclusions, and recommendations.

5.1. Summary of the Major Findings

The main purpose of this study was to examine the practice of curriculum development and implementation in some selected colleges of Ethiopian Defense Training Main Department. The data were collected based on six basic questions, which were presented in Chapter one. Based on these basic questions, a questionnaire, focus group discussion and interview guide questions, and observation checklists were developed.

The study was carried out in three EDTMD's colleges, namely: EDCSC, CAA and MGHAA, and one TMD curriculum section. By using available sampling technique four groups of study population were taken as a source of information: TMD curriculum section members, college deans, instructors, and students. Seventy two instructors, 120 students filled and returned completed and usable questionnaires. Six college commandants and deans and one TMD curriculum coordinator from their respective places were interviewed. In addition, one focus group discussion was made with 7 TMD curriculum members.

To this effect, a descriptive approach was employed. Quantitative and qualitative methods were used in analyzing the data obtained through the instruments. Percentage, mean, independent *t*-test, *Chi*-square and the rank-order were used for statistical treatment of the data. The suggestion made by the respondents were tabulated and calculated. Discussion, conclusion and recommendation were given to the light of analysis of the data.

5.1.1. Major Findings

From the overall analyses of the data obtained from different sources and the discussions made so far, the following major findings have been obtained.

1. **The Type of Model used to Develop the Curriculum**

With regard to the model used to develop the curriculum in Ethiopia Defense Training Main Department (EDTMD), the qualitative analyses of the data indicated that there was no conscious effort to use any model in the TMD, and it is not clear factual evidence signifying that the TMD really follows a certain working model, but the practices have been related to Tyler's objective model. The data further revealed that the process of curriculum development stages for TMD's education and training were started by assessing the needs of the stakeholders. However, they failed to reflect all curriculum development stages.

2. **The Stakeholders' Involvement**

The majority of the respondents answered that in the developing curriculum process, TMD academies and colleges, local educational experts and foreign military professional participated with the average mean score 3.25, 3.13 and 3.11 respectively. This revealed that these stakeholders were moderately involved in the developing curriculum process. Whereas, the study revealed that most of Ethiopian Defense education and training center stakeholders participation average rating mean was between 1:00 to 1:95 which is indicated low level involvement.

According to the respondents, large proportion (78%) of the respondents agreed that instructors' participation throughout the curriculum development process was low. As tested using independent *t*-test of the students' involvement of in the curriculum development process, the teacher and student respondents with average mean values 1.94 and 2.48 respectively showed their agreement that students' involvement in the curriculum development process was low. Similarly, the data revealed that there was statistically significant difference between the two groups of respondents with t-value (5.427) which is greater than the t-critical value (1.96) at $\alpha = 0.05$.

3. The Availability of Instruction Materials

The data from the teacher and student respondents and personal observation further revealed that the present resource of the availability and collection instructional resources, particularly library resource, in the TMD's college's libraries are weak. Teacher and student respondent's agreement with their average mean values 1.86 and 2.04 indicated that both groups have been feeling of inadequacy of instructional materials. The data further showed that there was no statistically significant difference between the two groups of respondents with t-value (1.59) which is less than the *t*-critical value (1.96) at $\alpha = 0.05$;

The data obtained by observation checklists also confirmed that in all TMD's colleges, there was a shortage of reference materials in the library which are directly related to the given course and that are necessary to the guidance for the teaching- learning process.

4. Evaluation Mechanisms

It has been found that both formative and summative evaluation types were practiced, however, the majority of participants agreed that there were no consistent evaluation and feedback as a system and as a practice. With regard to Training Main Department and monitoring and supervising activity the study also found out that 57% of teachers and 54% students respond confirmed that TMD rarely supervise the teaching-learning process. As tested using chi-square test, there is a significant difference between students and teachers in rating the frequency of supervising practice by TMD, $\chi^2 (2, N = 192) = 6.52, p < 0.05$.

In line with this, the majority respondents (64%) confirmed that the college commandants rarely monitor and supervise the teaching-learning process. A chi-square test was also indicated there is a significant difference between students and teachers in rating the frequency of monitoring and supervising practice by the college commands, $\chi^2 (2, N = 192) = 7.74, p < 0.05$.

5. **Factors Inhibiting Curriculum Implementation**

From the analyses of the data obtained from different sources, it was found out that there was a problem in the competency and mix of adequate number of qualified teaching staff in TMD's colleges. Teacher and student respondents with their average mean value 2.76 and 2.12 respectively which is indicated low level of agreement to the availability of adequate and qualified teaching staffs in their respective colleges. On the other hand, the data confirmed that there was statistically significant difference between the two groups of respondents with t-value (5.831) which is greater than the *t*-critical value (1.96) at $\alpha = 0.05$.

With regard to the mix of academic staff: the average ratings by teachers and students mean values are 2.49 and 1.96 respectively which is indicated low level of agreement to mixes of academic staff. In connection to this, the data revealed that there was statistically significant difference between the two groups of respondents with t-value (4.595) which is more extreme than the t- critical value (1.96) at $\alpha = 0.05$.

Although some of the respondents could actually state that they got comparatively adequate pre-service and in- service training in their respective colleges, 67% of the entire instructors responded they did not get pre-service and on-job training related to the curriculum development process in the TMD's colleges. Besides,71% of respondents agreed that the TMD did not create opportunities for teachers to discuss on curriculum development and implementation by preparing educational workshops, conferences, seminars, etc. only, 29% of the instructors claimed that TMD played a role to serve as an agent to create such possibilities.

The study found out that 80% of TMD colleges' instructors didn't carry out educational research, while some (20%) have involved in curricula research activities. In addition to this, the majority (83%) teacher respondents clearly indicated that there is no responsible section for curriculum development and research activity in their respective colleges.

In connection from these, the majority (75%) of the participants replied that there were no any efforts made by the TMD or the college to promote instructors to undertake educational research.

The study also found out that the TMD College's curricula was lacked to reflect the current need/interest of the Ministry of National Defense and relevance with Ethiopian Defense Military science and doctrine. This is more confirmed by teacher and student respondents with their average mean values 3.41 and 3.34 respectively revealed that both groups of respondents had a moderate level of agreement about the relevance of the curriculum to the need Ministry of National Defense. Likewise, the data confirmed that there was no statistically significant difference between the two groups of respondents with *t*-value (0.49) is less than t - critical value (1.96) at $\alpha = 0.05$.

With regard to relevance of the colleges' curricula to Ethiopian Defense Military science and Doctrine, both groups have shown low level agreement with their average mean values 2.23 and 2.51 respectively, and their *t*-value indicated there was no significant difference between the two groups of respondents with *t*-value (1.66) which is less than the *t*- critical value (1.96) at $\alpha = 0.05$;

Finally, the study further investigated that the teacher respondents ranking of the major factors that affected the curriculum implementation practice in TMDs' colleges. Low level of teacher knowledge and competency, poor reference instructional materials, shortage of student's background knowledge, poor feedback system, and poor working environment took the upper five ranks. On the other hand, those factors like poor student admission criteria, inappropriateness of the teaching methods, inadequacy of pre-service training for teachers, resistance to change, and teacher's teaching load took the lower five ranks denoting the minimal influence they have on the curriculum implementation.

5.2. Conclusion

Based on the major findings of the study, the following conclusions are made.

From the responses of the informants, in developing the curriculum the TMD College's practices more or less, related to objective model. However, it was not possible to get document, which confirms that the Training Main Department curriculum development process based on the model mentioned. This clearly shows that the TMD colleges lacked to incorporating clearly defined models and regulations, which are direct or guide the curriculum design and development process.

Although the TMD's college was initiated based on the need of MoND, no significant attentions was given to involve the instructors, students and other stakeholder's in the curriculum development process. This implies that the EDTMD did not effectively play an important role to be all the stakeholders' part to the curriculum development process. Such constraints narrowed the military stakeholder experience and the appropriateness of the revised curriculum to the current Defense operational environment. Curriculum development process is a complex and multifaceted activity; it needs participation of other professionals, and a stakeholders.

With regard to the availability of instruction materials, the findings indicated that the TMD College's libraries did not have adequate instruction materials related to the curriculum. This indicates that such limitations affect the teaching-learning process in general and some basic knowledge, understanding and skills of graduates, in particular.

With respect to the evaluation of the curriculum, the majority of participants agreed that, there were no consistent evaluation and feedback as a system and as a practice. Moreover, the supervising evaluation mechanisms practices were ignored. This implies that due to lack of evaluation mechanism practices, the curriculum failed to satisfy the needs of the stakeholders and the demands of the MoND.

Research should be an integral part of the duties of Defense institutes. Any curriculum development task requires the instructors actively engagement in the educational research. Here, the implication seems that, their involvement in curricula research activities increases their understanding of their own duty on one hand, and it promotes their teaching effectiveness and system, on the other hand. However, the findings indicated that, most of the curriculum development did not depend on research or in the basis of the survey results to develop the new curriculum. Such practices, however, limiting the curriculum development and negative influence in the implementation process.

Regarding factors that affect curriculum implementation, the study found out that the curriculum barely reflect the current needs/interests of the Ministry of National Defense coupled with the absence Ethiopian Defense Military science and doctrine. It was justifiable for this study that the TMD's colleges curriculum was depend on foreign Military doctrine and concept. The study further revealed that unavailability adequate number of qualified teaching staff coupled with inadequate in-service training and poor student's background knowledge tied with poor admission criteria are posing a threat not only to the implementation practices of the curriculum but also substantially inhibited the TMD teaching-learning process and the military education system as a whole. Hence, this entails a clear message for curriculum developers; that is, the need to consider the status of the instructor and students for effective curriculum development and implementation.

Generally, the practices of curriculum development, implementation and evaluation in EDTMD nonetheless, lack in built system of planning, implementation and evaluation mechanisms inherent with in curriculum development procedures. The researcher, therefore, recommends that the following.

5.3. Recommendations

Traditional military training and education may not meet all the needs of the contemporary requirements on the field. It needs to be updated and revised based on set rules and procedures. While conducting military educational and training research, increasing the instruction of the common core curriculum areas-profession of military science and art, military studies and research, instructional system, and it may avail to develop on the entire National Defense structure and system of the Institute.

Based on the major findings of the study and the conclusion drawn, the researcher, therefore, recommends the following.

1. Educational stakeholders are the ones who can pin point or evaluate the shortcomings of the curriculum and give suggestions and feedbacks for effective and constructive ideas about it. In order to perform an appropriate and relevant current curriculum development process, the Training Main Department and or the Ministry of National Defense should give attention to involve the entire Defense stakeholders during the design, development, implementation, and evaluation of the curriculum. Particularly, instructors and students should actively participate in decision-curriculum making process starting from curriculum development up to the evaluation stages.
2. Since the teacher is the major single factor in fostering teaching learning, it is desirable that he/she should be suitably trained to discharge his or her duties effectively. Particularly, Military education needs a sound foundation balanced in theory, knowledge, and practical experience. Therefore, in order to help the teachers update and intensify their knowledge in content as well as pedagogy, the TMD and its colleges should play major and decisive roles by organize pre-service and in-service training programmes, like educational seminars, workshops, refresher courses, which are directed towards the implementation of the revised curriculum, on a continuing base.

3. The TMD colleges must clearly address Ethiopian defense Military Science and the use of art in their curriculum. To overcome these impediments, the TMD colleges must first organize and develop standardized references, modules and texts that clearly reflect the need of Ethiopian Defense military doctrine. The MoND and TMD heads should assist in this effort through their influence in the military education system. Equally important, standardized and quality modules and textbooks are the concrete manifestation of curriculum, It is therefore, recommended that the Training Main Department, in collaboration with its colleges and academies as well as other stakeholders should give due to attention to be equipped with necessary reference materials, which are especially necessary and relevant to the courses given with reasonable standard and quantity.
4. The MoND and TMD command ought to make an unreserved effort to established research center in all colleges and allocate adequate fund for extended curriculum research activities. Moreover, they should encourage the college's departments and instructors to apply expertise by conducting methodologically sound research pertinent to improve the curriculum and to deal with the current military dynamism and address the MoND intent. Furthermore, Educational research should be an integral part of the duties of Defense colleges. Hence, the researcher recommend that further research should be undertaken which is focus on the curriculum implementation process. By doing this, it is possible to minimize the problems that affect the curriculum implementation practice.
5. In order to formulate appropriate mechanism for curriculum improvement and implementation, there is an urgent need to formulate a Defense core curriculum applicable to all defense colleges of the country. TMD should undertake the responsibility of developing the Defense core curriculum. Moreover, curriculum developing centers and responsible educational sections should set up clear and specific curriculum development and implementation guidelines which could give clear directions to answer questions such as what, how, who, when, by whom and to whom the curriculum be developed and /or improved as well as implemented.

6. Since the curriculum, development is a continuous process, it should be evaluated periodically and recast in its totally. TMD should provide academic guidance to its colleges for the evaluation of their curricula, and they should facilitate proper supervision and co-ordination the teaching-learning process that can effectively implement the college's curriculum.
7. Finally, in order to develop the army members' academic knowledge and skills and to meet the developed curriculum admission requirement, the current process of MoND education and training activity should be increase largely with a continuous process.

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Appendix -A

ADDIS ABEBA UNIVERSITY
SCHOOL OF GRADUATE STUDUIES
INSTITUTE OF EDUCATIONAL RESEARCH

Questionnaire to be filled by Instructors

The purpose of this questionnaire is to collect important data about **the practice of curriculum development and implementation in some selected colleges of Ethiopian Defense Training Main Department (EDTMD) from 2005 – 2010**. The data you provide will be used for academic purpose and is kept confidential. Moreover, as the data is required for the academic purpose, you are encouraged to freely express your views and concerns. I do believe that the findings from the study contribute to the efforts being exerted in developing the Defense higher education sector.

Your kind help is extensively valuable to make the study reliable, valid and fruitful. Hence, you are kindly requested to give your opinion on the basis of the following questions.

Thank you for your cooperation in advance.

General Directions:

I. You are not required to write your name.
II. Where you are required to show your reactions (ratings) by following rating scales please put an "√" below the number of your choice opposite (parallel) to each statement.
III. Where alternative answers are given, please encircle the letter of your choice.
IV. In answering the open-ended questions, please be as brief as possible. In case you have additional comments, use the back side of the question paper by clearly indicating the number(s).

Part I: Background Information

1. College/ Academy :_____

2. Sex: Male ☐ Female ☐

3. Age

Below 25	☐	36-45 years	☐
26-35 years	☐	46-55 years	☐

4. Your academic qualification
   a. Diploma ☐
   b. BA/BSC ☐
   c. MA/MSC ☐
   d. PHD ☐

5. Years of work experience as a instructor, only in **Defense College** institute, including the present college

0 -2	☐	6-8	☐	12-14	☐
3-5	☐	9-11	☐	15 and over	☐

6. Total years of service in Ministry of Defense

5 years & below	☐	11-15 years	☐	21 years & above	☐
6-10 years	☐	16-20 years	☐		

Part Two: Items Related to Curriculum Design and Development

DIRECTION: Please answer each item by putting a tick mark (√) in the box below the choices, which most closely represents your opinion about the statements using the following five-point rating scale.

5 =Very Strong, 4= Strong, 3=Moderate, 2= Weak and 1=Very Weak.

Item	Items	Actual participation				
		5	4	3	2	1
1	The Relevance of the college curriculum to the need / interest of Ethiopia National Defense					
2	The practice of need assessment/ situation analysis to revise the curriculum					
3	To Relevance of the curriculum tie with Ethiopian Defense Military science and Doctrine					
4	Flexibility of the curriculum in adapting latest National and International Military concept and practice					
5	The structure of the curriculum to accomplish the college's objectives					
6	Clarity of the college curriculum					

7. How many times has your college revised its curriculum since 2005-2011?

   A) Once B) Twice C) 3 times D) 4 times E) Not at all

8. In your opinion, what were the **bases for revising** the college of curriculum since 2005-2011?

   _____

   _____

Is there an operational set of rule and regulation that governs the curricular structure for the development and modification of curriculum in your college?

Yes ☐ No ☐

9. If your answer to question number 15 is" No" Please, explained how was the college initiated to develop the curriculum

   _____

   _____

   _____

10. Please, briefly explain the major curriculum development **stages/process** that the college has undertaken during its curriculum revision since 2005 -2011.

_____

_____

11. Does the college have responsible section for curriculum development and research activity?

    a. Yes;

    b. No;

    c. Other please specify:_____

Part Three: Items related to stakeholders involvement

12. Please, rate the degree to which the following stakeholders have involved in your college curriculum development process since 2005-2010.

Response Rating: 5=Very high; 4 = high; 3= Moderate; 2 = Low; 1= Very Law

Item	Stakeholders Involvement	Curriculum Development				
		5	4	3	2	1
12.1	MoND Head Quarter					
12.2	MoND Main Departments					
12.3	Defense commands					
12.4	Air Force					
12.5	The college teaching staffs					
12.6	Educational Experts in MoND institute					
12.7	Students including (Alumni)					
12.8	Defense colleges					
12.9	Local Educational experts					
12.10	Foreign Military experts					

13. Do you have participated on the college level curriculum design and development process since 2005-2011?

    a. Yes;

    b. No;

    c. Other please specify:_____

14. If your answer for item 9 is "yes", please explain **your role** during the process.

    _____

    _____

    If your answer for item 9 is "No", Why?

    _____

    _____

    To what extent instructors and students were involved in curriculum development and implementation process since 2005-2010?

Response Rating: 5=Very high; 4 = high; 3= Moderate; 2 = Low; 1= Very Law

Item	INVOLVEMENT	Response Rating				
		4	3	2	1	0
14.1	Instructors Participation on need assessment(situation analysis) based on defense interest					
14.2	Instructors Participation on for curriculum planning and development					
14.3	Instructors Participation on preparation of organized manuscripts of text materials relevance with Ethiopian Defense Military science and Doctrine					
14.4	Instructors Participation on curriculum evaluation decisions (whether the materials should be either revised or retested)					
14.5	Students' participation in curriculum planning and development process since 2005-2010?					
14.6	Students' participation on curriculum evaluation					
14.7	Instructors participation taken in-service training in the area of curriculum implementation					
14.8	Instructors Participation undertakes educational research particularly, in order to improve the curriculum and its					

15. Please list down any further suggestions which you think enhance the college instructors' involvement for the curriculum development.

_____

_____

Part Four: Items related to Curriculum Implementation

16. Please rate your **valuing/assessment** of the curriculum implementation in fulfilling the practices listed in the left column of the following table.

Response Rating: 5= : 5=Very high; 4 = high; 3= Moderate; 2 = Low; 1= Very Law

No	Items related to Curriculum Implementation	Response Rating				
		4	3	2	1	0
16.1	The curriculum implementation has addressed the needs of defense in terms of Producing efficient and competent					
16.2	Availability of adequate numbers of qualified teaching					
16.3	Mix of academic staff (in terms of specialization,					
16.4	Instructors experience and qualification in the relevant aspect of curriculum development					
16.5	To what extent the college curriculum changing the student's knowledge, skill and attitude.					
16.6	There are good working environment and clear communication in the college					
16.7	Student academic background appropriateness to the existence curriculum					
16.8	The TMD facilitate conditions for teachers to get in-service education					
16.9	To what extent the college or TMD urge instructors to undertake educational research					
16.10	The stakeholder's feedback information for developing the curriculum					

17. To what extent the Training Main Department has conducted regular monitoring and supervising?

a. Frequently

b. Rarely

c. Not at all

18. To what extent the College/Academy has conducted regular monitoring and supervising?

a. Frequently b. Rarely c. Not at all

Part Five: Items related to availability of curricula materials

19. Please indicate the **extent of the availability** of the listed curricula materials in the college library by putting "√" mark. There are five alternatives and their value is indicated as follows.

5= More than adequate; 4= Adequate; 2= Undecided; 1= Inadequate; 0= More than inadequate

No	Instruction Material	Response Rating In the College Library				
		4	3	2	1	0
19.1	Size and facility of the existing library					
19.2	Collection of Reference books related with the given courses:					
19.3	Availability of Organized Textbooks and module for overall courses					
19.4	Availability of Different reference materials					
19.5	Reference materials related with curriculum development					
19.6	Availability of journals and reference					
19.7	Sufficiency of the computers in the lab					
19.8	Reliability of the internet connection					
19.9	Appropriateness of the college set up					

20. If you have additional information concerning the instruction material that you think affects the effective curriculum implementation

_____

_____

_____

Part six: Items related to possible problems that influence the learning process

21. After reading the following list of possible factors, Please put them numerically in rank order according to level of *influence* they have on the implementation of the college curriculum.

Item	Possible factors	Rank
21.1	Poor reference instructional materials	
21.2	Teachers teaching load	
21.3	Poor working environment	
21.4	Inadequacy of pre-service training for teachers	
21.5	Absence of teacher knowledge and competency related with the entire curriculum	
21.6	Poor student admission criteria	
21.7	Poor feedback system.	
21.8	Inappropriateness of the teaching methods suggested in the curriculum.	
21.9	Lack of students background knowledge	
21.10	Resistance to change	

22. What, in your opinion, are the **major problems /inhibiting** factors and their possible solutions on the process of curriculum development and implementation since 2005-2011?

Curriculum development Problems **Suggested solution**

1. _____ 1. _____
2. _____ 2. _____
3. _____ 3. _____
4. _____ 4. _____
5. _____ 5. _____

Curriculum implementation Problems **Suggested solution**

1. _____ 1. _____
2. _____ 2. _____
3. _____ 3. _____
4. _____ 4. _____
5. _____ 5. _____

❖ If you have any comment or suggestions, please

_____

_____

Thank You again for your cooperation!

ADDIS ABEBA UNIVERSITY
SCHOOL OF GRADUATE STUDUIES
INSTITUTE OF EDUCATIONAL RESEARCH

Questionnaire to be filled by students

The purpose of this questionnaire is to collect important data about **the practice of curriculum development and implementation in some selected colleges of Ethiopian Defense Training Main Department (EDTMD) from 2005 – 2010**. The data you provide will be used for academic purpose and is kept confidential. Moreover, as the data is required for academic purpose, you are encouraged to freely express your views and concerns. I do believe that the findings of the study contribute to the efforts being exerted in developing the Defense higher education sector.

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General Directions:

V. You are not required to write your name.
VI. Where you are required to show your reactions (ratings) by following rating scales please put an "√" below the number of your choice opposite (parallel) to each statement.
VII. Where alternative answers are given, please encircle the letter of your choice.
VIII. In answering the open-ended questions, please be as brief as possible. In case you have additional comments, use the back side of the question paper by clearly indicating the number(s).

Part I: Personal Profile

Direction: Please complete this part of the questionnaire by putting a tick mark (√) against your response.

23. College/ Academy :_____

24. Age

Below 25	☐	36-45 years	☐
26-35 years	☐	46-50 years	☐

25. Your academic qualification

a. 12 grade and below ☐
b. Diploma ☐
c. BA/BSC ☐
d. Others, please specify_____

26. Total years of service in Ministry of Defense

5 years & below	☐	11-15 years	☐	21 years & above	☐
6-10 years	☐	16-20 years	☐		

Part Two.

Direction: Please respond to the following questions with a mark of (√) to your response by circling the letter of your choice or by writing your responses on the space provided with respect to each question.

1. Have you been consulted about the design and development of the curriculum; and the way it is developed?
    a. Yes, I was consulted and given options of other different relevant courses to choose from;
    b. No, I was not consulted
    c. Other, please specify: _____

2. Are you satisfied with the ongoing courses of study?

   a. Yes, I am satisfied extremely;
   b. Yes, I am satisfied to some extent;
   c. No, I am not satisfied;

3. To what extent do you have gained Knowledge and skill in the learning process?

   Very High ☐ High ☐ Moderate ☐ Low ☐

4. In your opinion, is the training according to your expectations?

   Yes ☐ No ☐

5. If your answer is question no 4 "No", What was the gap between your expectation and the actual situation? Please specify:

   _____

   _____

   _____

6. To what extent the college curriculum relevant to your professional / mission

   a. High relevant ☐
   b. Moderately relevant ☐
   c. Low relevant ☐
   d. Not relevant ☐

7. To what extent have the students involved in curriculum development and process?

   a. Very high;
   b. High;
   c. Satisfactorily
   b. Low
   c. Very Low

8. Please list down any further suggestions which you think enhance the college students' involvement for the curriculum development.

   _____

   _____

   _____

   _____

   —

Part Three: Items Related to Curriculum Development and implementation

9. Please answer each item by putting a tick mark (√) in the box below the choices, which most closely represents your opinion about the statements using the following five-point rating scale.

5=Very high; 4 = high; 3= Moderate; 2 = Low; 1= Very Law

No	Item	5	4	3	2	1
9.1	The Relevance of the college curriculum with the interest Defense.					
9.2	The Relevance of the curriculum with Ethiopian Defense Military science and Doctrine					
9.3	The college admitted criteria appropriateness for the existence curriculum					
9.4	Student academic background appropriateness for the existence curriculum					
9.5	The students feedback system on curriculum development and implementation process					
9.6	The student participation on the curriculum development process					
9.7	Availability of adequate number and qualified teaching staffs					
9.8	Mix of academic staff (in terms of specialization, experience					
9.9	The Training Main Department Regular monitoring and supervising activity					
9.10	The college commandant and/or dean Regular monitoring and supervising activity					

Part Four: Items related to availability of curricula materials

10. Please indicate the extent of the availability of the listed curricula materials in the college library by putting "√" mark. There are five alternatives and their value is indicated as follows

5= More than adequate; 4= Adequate; 2= Undecided; 1= Inadequate; 0= More than inadequate

No	Instruction Material	Response Rating				
		4	3	2	1	0
10.1	Size and facility of the existing library					
10.2	Collection of Reference books related with the given courses:					
10.3	Availability of Organized Textbooks and module for overall courses					
10.4	Availability of Different reference materials					
10.5	Reference materials related with curriculum development					
10.6	Availability of journals and reference					
10.7	Sufficiency of the computers in the lab					
10.8	Reliability of the internet connection					
10.9	The Accommodation suitability for students					

11. If you have additional information concerning the instruction material that you think affect the effective curriculum implementation, please state it below.

_____

_____

_____

12. What, in your opinion, are the major problems /inhibiting factors and their possible solutions on the process of curriculum development and implementation since 2005-2011?

Curriculum development Problems **suggested solution**

1. _____ 1. _____
2. _____ 2. _____
3. _____ 3._____
4. _____ 4._____
5. _____ 5._____

Curriculum implementation Problems **suggested solution**

1. _____ 1. _____
2. _____ 2. _____
3. _____ 3._____
4. _____ 4._____

If you have any comment or suggestions, please.

_____
_____
_____
_____
_____
_____

Thank You again for your cooperate!!

Appendix - C

ADDIS ABEBA UNIVERSITY
SCHOOL OF GRADUATE STUDUIES
INSTITUTE OF EDUCATIONAL RESEARCH

Interview guiding questions for the College Commandant & Deans

The purpose of this interview is to collect important data about the practice of curriculum development and implementation in some selected colleges of Ethiopian Defense Training Main Department (EDTMD) from 2005 – 2010.

1. How has the Ethiopian Defense TMD College's curriculum been initiated and developed since 2005-2011?
    a. What were the bases for revising the curriculum?
    b. Does the practice of curriculum development since 2005/06 go with basic theoretical constructs of the identified model?
2. To what extent the Training Main Department colleges curriculum Relevance to Ethiopia National Defense interest/ needs since 2005-2010
3. What were the stages of curriculum development process considered during the development of curriculum in your college?
4. Do you think that The TMD college's curriculum related with our Military science and Doctrine?
5. To what extent have the stakeholders involved in curriculum development and implementation process since 2005-2011?
    a. How do you evaluate the personnel involved in the development of the college curriculum in terms of experience competency and qualification?
6. Does the college have responsible section for curriculum development and research activity?

7. What mechanism were employed to evaluate the curriculum
8. Do the college teachers undertake educational research particularly, in order to improve the curriculum and its implementation? If "No" Why?
9. To what extent are curricula implementation materials available in TMD colleges?
10. What are the major factors (constraints) that affect the curriculum development and implementation in your college and Training Main Department since2005?
11. Do you have any comment or suggestions on the process of Curriculum development and implementation?

Many thanks for your cooperation!

Appendix - D

ADDIS ABEBA UNIVERSITY

SCHOOL OF GRADUATE STUDUIES

INSTITUTE OF EDUCATIONAL RESEARCH

Observation Checklist

The purpose of this checklist is to gather relevant information on the availability and adequacy of instruction material for curriculum development and implementation.

Name of the college_____

Instruction Materials	Available material for the purpose of curriculum development and implementation		Comments on sufficiency of materials
	Yes	No	
Size and facility of the existing library			
Collection of Reference books related with the given courses:			
Availability of Organized Textbooks and module for overall courses			
Availability of Different reference materials			
Reference materials related with curriculum development			
Availability of journals and reference			
Sufficiency of the computers in the lab			
Reliability of the internet connection			
Appropriateness of the college set up			

Declaration

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

Name Awgichew Fekade

Signature _____

Date June 6/2011

This thesis has been submitted for examination with my approval as University advisor.

_____

Firdissa Jebessa (PhD)