

THE RELEVANCE OF DISTANCE EDUCATION PRINT
INSTRUCTIONAL MATERIALS TO THE NEEDS OF
DISTANCE LEARNERS: THE CASE OF MINISTRY OF
NATIONAL DEFENCE



Demeke Mengistu

Addis Ababa University

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The Relevance of Distance Education Print Instructional Materials to the Needs of
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Demeke Mengistu

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Department of Curriculum and Instruction

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ABSTRACT

The Relevance of Distance Education Print Instructional Materials to the Needs of Distance learners: the Case of Ministry of National Defense.

Demeke Mengistu

The main purpose of this study was to assess the relevance of distance education print instructional materials of grade 7 and 8 prepared by the Ministry of National Defense. To conduct the study, both qualitative and quantitative (mixed) approach was employed. Moreover, the study used a case study design. A total of 93 respondents (78 distance learners of grade 7 and 8, 8 tutors, 4 officials (staff) of Defense General Education Department and 3 coordinators of the program) at Command and Division levels were included in the study. The tutors, staff of Defense General Education Department and coordinators were selected using purposive sampling technique whereas; the distance learners were selected through availability sampling. The data were gathered through questionnaire, interview and content analysis. Data gathered through questionnaire were analyzed using percentage while data obtained through interview and content analysis were analyzed qualitatively. The study revealed that the relevance of the distance education print instructional materials contents to the needs of distance learners was unsatisfactory. Low quality of the cover page and binding, inconsistency in providing list or outline of the content, deviation of the content from national curriculum framework and syllabus and unclear illustrations in the print instructional materials were some of the factors that were found to have degraded the relevance of distance education print instructional materials. This leads to conclude that the existing print instructional materials are not relevant to the needs of the distance learners due to the fact that their contents are not in accordance with the national curriculum frame work and syllabus. This may have negative influence on the overall teaching-learning process of the program. Finally, the study called for the need of revising the existing print instructional materials in accordance with the national curriculum framework and syllabus.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Organization in a given country whether a social service or industrial plants need trained human power to accomplish their goals (missions). This is because it is the trained human power that can successfully utilize resources efficiently and effectively and able to operate technologically advanced devices to bring the desired result for a given organization/nation. With respect to this fact, various scholars justify that no country has registered good economic growth without sound development in its education (Tesfaye, 2002: 1 cited in Tarekegn).

The history of economic development shows that the developed countries have given priority to education to get rid of the blockage of poverty. They invested a great deal of money on the sector to ensure quality and quantity education.

In view of the above fact, Ethiopia is one of the countries that have invested a great deal of money on the education sector to expand its accessibility (education and training policy, 1994). This is because Ethiopia has planned to bring about rapid economic development and ensure democracy and good governance so that it will be possible to get rid of poverty. To this effect, it is ideal to focus on man power development as educated man power can shoulder the efforts to enhance economic development, ensure democracy and good governance.

However, this educational attempt cannot be achieved only through formal (traditional face-to-face) education due to the fact that there has been a great insufficiency of opportunities in access to formal education due to new and changing demands for education.

The Explanation provided by UNESCO substantiated the above argument as follows:

In efforts to meet the new and changing demands for education and training, open and distance learning may be seen as an approach that is at least complementary and under certain circumstances, an appropriate substitute for the face-to-face methods that still dominates most educational systems (UNESCO, 2002: 20).

This implies that the distance mode of education plays an important role in meeting the need of persons who are in great demand of education but cannot complete their education from the formal or regular system of education. These people may be in-service persons due to certain reasons that they could not complete their educational qualifications without disturbing their jobs and removed from their family. These people may also be from inferior socio-economic conditions but want to enhance their educational status. They could be persons who want to learn and simultaneously earn income or such persons who are residing far away from the big cities or in remote areas like members of the military who do not get access to formal schools and/or colleges and universities. Furthermore, distance education can satisfy the needs of persons who always want to add something new on their knowledge or update their knowledge via different forms of education and training.

In general, it is possible to conclude that distance education can be taken as a complementary to formal education for several reasons as it has been established to expand access to learning. Among many others, the following are crucial reasons for which distance education is said to be complementary to formal education both from the perspective of individual learner and the nation as well.

First, any nation of the globe needs trained man power to undertake their social and economic activities and thus, it is distance education which can reach a wider audience and meet the needs of a nation in producing trained manpower and the needs of individuals who are unable to attend traditional face-to-face classes.

Second, distance education is more cost effective in teaching a massive and ever increasing number of people who are dispersed geographically. The most important

attraction of distance education is the reason that if properly designed and implemented, it should be much cheaper than traditional one (Economic and social policy working papers series 97/5:4 cited in Dodd and Inquai). World Bank report (1992:20) on distance education in Anglophone Africa noted that, there is an indication that distance education is significantly cheaper than formal education.

Economic and Social Policy Working Papers Series substantiated the above idea with examples as follows:

At the tertiary level, colleges and universities devoted exclusively to distance education can accommodate a much larger number of students than conventional colleges and universities. For example, Ramhamhaeng University of Thailand, which is an exclusively distance education institution has a total enrollment of over 300,000 students (ESPD/WPS/97/5:4).

This implies that distance education is suitable for those who want to learn and earn income at the same time. Beside to this, it favors employers (organizations) providing the possibility to organize in-service training for their staffs without releasing them for long period of productive time and this in return has its own contribution in enhancing the economic development of a given nation. Furthermore, enables the government and educational policy makers to provide equitable education and addressing a massive and ever increasing number of people who are in need of education while dispersed geographically.

Taking the above advantages in to account, Ethiopia has licensed distance education and as the result, many private distance education institutions were established and have launched offering different courses through distance mode. In addition to private institutions, there are a number of government institutions that have offered different courses through distance mode among which Ministry of National Defense is one.

In order to carry out its mission, the defense force has to be equipped with necessary materials and be able to operate (use) them properly. This is possible only through education and training. Accordingly, Ministry of National Defense (MoND) has crafted

its own education and training policy that aims at scaling up the educational status of its personnel at different educational level. The policy gives emphasis on basic education, secondary level education including preparatory program and tertiary level education. Different forms of education such as formal and non-formal education are employed to carry out the learning and teaching process in the ministry. Distance education is one of the forms of learning, which Ministry of Defense is employing to reach its personnel those who do not benefit from regular education for several reasons.

These people are who joined the military from across the nation even from where there is no formal education access. They did not complete their education due to the fact that there is no educational access where they reside; some of them might have financial problem, and others might be due to the fact that they develop interest to serve in the military and quit their education. Therefore, educational opportunities should be facilitated for them to get them effective enough on their job as to the institution. Distance learners for whom the program has been designed are adult people who have their own accumulated experience. However, they do not have sufficient time to go through their print instructional materials (study thoroughly) due to the fact that the nature of military mission is very tough. Therefore, the print instructional materials should fill this gap by incorporating all essential parts (components). The program is designed for secondary level (grade 7-10 and preparatory level). However, in order to bring the result, the distance education program that has been launched and practiced by the ministry uses print instructional materials as one of the decisive elements among many others that determine the fate of distance education.

In distance education, the print instructional materials serve as the major learning resources for students of the ministry. As there is a limited capacity to utilize advanced electronic materials to support the teaching learning process via distance, the availability of high quality print instructional materials is crucial to facilitate the students' learning process at a distance. For the lacked human sense in distance teaching is to be resolved by the use of print instructional materials, effective design of print material is essential and crucial because it is the institution rather than the teacher that teaches. The print

instructional materials should thus be designed in a way that they are user-friendly for the learners' self-study and independent learning activities.

Even though distance students have the options to choose from a variety of media that suit their learning needs and situations/conditions such as audio cassettes, video cassettes, television program, web-based supplement etc..., print instructional materials remain the major learning resources for distance students in which the students learn from it. However, in order to teach and learn via distance education, every instructional material, especially the print instructional material, consists of essential components like general and specific objectives, introductory sections, the content of the course comprising topics and subtopics, exercises, summary, formative tests, feedbacks, list of references, glossary of terms and possible responses to exercises. Distance students have to familiarize themselves with independent learning style, and therefore, the instructional materials should include sections where students have to engage themselves in active learning, instead of passive reading. For example, students can be actively involved in working on a project, conducting small-scale research, solving cases, doing exercises, taking self-assessment and many other activities. Including such activities in the print instructional materials has been found useful to provide the distance learners with a series of detailed questions intended to make it possible for them to check that they retain all important points or knowledge area.

The print instructional materials allow students to get feedback from their tutors for their work and learning activities. They should also be designed in a manner to enable students to work on the self-assessment exercises and formative tests on their own or in collaboration with their peers. In this way, distance students will be able to overcome the lonely feelings of the independent and autonomous learning process (Suparman & Zuhairi, 2004). To emphasize more, print instructional materials should be designed to consider not only the systematic presentation of the content but also other aspects related to the precise communication process, delivery process and pedagogical matters. In other words, instructional materials in distance education are designed in such a way to represent teaching and learning in the face-to-face mode of instruction and they are designed to motivate the students in self-

directed learning. Hence, the content of materials must focus on encouraging learners to study independently (Yunus & Pannen, 2004). This shows that print instructional materials in distance education should be structured in ways that they can stimulate students' independent learning activities, guide students' learning of the contents, and direct students to be able to understand the concepts through a variety of exercises and self-assessment.

In summary, print instructional materials in distance education should guide and teach by causing discovery learning and/or give complete explanations with elucidating examples; by providing exercises of various kinds, by constantly referring to what the students have already learned to master, and by paving the way for successful problem solving. The subject matter to be taught should be divided into parts, suitable as course units, which are usually sent to students as their work progresses. This means that after the student has completed his/her study of one unit, he/she answer certain questions, solve sets of problems, report on experiments made according to instructions, do some other written works must be submitted for corrections, comments and suggestions.

The underlying reason for dividing the contents of the print instructional material into units, subunits sections and subsections is offer the learners suitable quantity of learning and to enhance their level of understanding. This would enable them to consider the study of each part as a separate task and can always find the learning material to be interesting for self-reading. Moreover, such an approach will enable the materials to have logical flow of contents and this in turn create conducive situation for the learners to master each section before proceeding to the next content.

Other issue to be considered in preparing print instructional materials for distance education is the use of language. Simple words have to be used while preparing print instructional materials in distance education. This is because learners have physical distance from their teachers (tutors) which will not enable them to get clarification and explanation about the contents they study. Thus, the use of simple language will enable learners to easily understand the contents of the materials by their own. In other words, the use of simple language bridges the existing physical distance between the learners and their teachers. Therefore, by doing what tried to mention above the print instructional

materials can be said substitute for both conventional textbooks and the exposition of a teacher and thus lacked human sense can be resolved. However, the print instructional materials prepared in such a way as has been discussed above cannot be a complete substitute for the teacher in class who not only lectures but also listens, argues, illustrates by means of experiments and generally interacts with the students rather they can minimize the absence of human sense.

With regard to all the aforementioned issues, the Defense General Education Department is the responsible body to carry out activities related to the program and has been performing the responsibility of print instructional material preparation and distribution, processing grade reports, managing technical services, enrolling new students, recording information, conduct face-to-face program (tutorial sessions), giving and correcting exams and assignments and perform many other activities. However, as the distance education is said to be new to the Ministry of National Defense, the researcher perceives that there are gaps in the field among which printed instructional material is significant to be studied.

1.2 Statement of the Problem

Experience and research so far show that distance education, like conventional learning has its own strengths and weaknesses. Studies of correspondence students have found that there is much more likely to dropout (Michael Potashnik and Joanne Copper in Tesfaye, 2002). The dropout can be for many reasons such as falling behind with course work, increased pressure at work, personality illness or disability and other factors (Ormond Simpson, 2002).

However, as Simpson (2002) states what would be done in order to improve dropout requires improved teaching, more detailed feedback on assignments, greater clarity about what is required in assignments and greater clarity about what is expected in assignments. This shows that the quality of print instructional materials has paramount importance due to the fact that they are the major learning resources for distance students in which the students refer to and learn from them though utilization of other media is possible if can be accessed. There are few studies conducted on distance education. For example, the

research carried out by Tadege in 2011 has found that there are several gaps associated with organizational and managerial factors affecting distance education under the Ministry of National Defense. However, since his study is confined on organizational and managerial issues, he pays little concern about the relevance and appropriateness of print instructional materials of distance education for the upper level primary education being undertaken under the Ministry of National Defense. The fact that the researcher has been working under the same ministry, particularly in educational institution, he has access to information regarding problems related to quality education. Since the kind of print instructional materials have their own influence on the quality of education, he developed an interest to conduct a research on the relevance of Defense Distance Education print instructional materials' content to the needs of 7th and 8th grade distance learners under the ministry. Accordingly, the study attempted to answer the following basic research questions:-

- a) What were the procedures followed in designing print instructional materials prepared for upper level primary education under MoND?
- b) How much does the structural organization of print instructional materials in distance education program of MoND go in line with the structural principles of distance education?
- c) To what extent is the content of print instructional materials relevant and suitable to adult learners working in MoND?
- d) To what extent is the language used in the print instructional materials appropriate to the proficiency and maturity level of the learners?

1.3 Objective the Study

The general objective of the study was to assess the relevance of distance education print instructional materials for secondary level distance education under the Ministry of National Defense to the needs of distance learners.

The specific objectives of the study included:

- i. Analyze how the print instructional materials were designed;

- ii. Examine whether or not the structural organization of print instructional materials followed the principles of structural arrangement of distance education materials;
- iii. Assess the relevance of contents of the print instructional materials to the needs of adult learners in the institution;
- iv. Examine whether or not the language used in the print instructional materials fits to the educational level of the learners.

1.4 Significance of the Study

The major purpose of this study was to assess the relevance of distance education print instructional materials to the needs of distance learners from the account of distance learners in MoND. Therefore, it was believed that the research and its findings had the following significance:

- i. It contributes to the knowledge of distance education coordinators and tutors of MoND with regard to the structure of print instructional materials;
- ii. Provides feedbacks for Department of Distance Education of MoND and other interested groups to realize that the design has great linkage with the relevance of instructional materials and initiates improvement in this regard;
- iii. Gives insight for course designers and writers with regard to what contents to be included in to the distance education print instructional;
- iv. It provides the course writers with an insight as how to use language whenever to write such instructional materials,
- v. Serves as a foot-spring for those who have a willing to carry out further and detailed study in the area.

1.5 Delimitation (Scope) of the Study

There are many factors that hamper the success of distance education. However, this study targeted only the print instructional materials delimited to upper level primary distance education program ranging from grade 7 to 8 under MoND even though MoND has launched distance education program for secondary (9 & 10) and preparatory program (grade 11 & 12). The upper level primary distance education program is under

the responsibility of Department of Distance Education of MoND to design and produce print instructional materials while the print instructional materials for grade 9-12 are designed and produced nationally. Therefore, the researcher chose distance education print instructional materials for grade 7 and 8 which are under the responsibility of the institution so as to enable him to see the gaps of the materials with regard to their design, component parts (constituents) and language used.

In terms of area of study, this study was delimited to Northern Command, which is found in Mekelle due to time and resource constraints to cover all sectors. Therefore, the Northern Command is chosen due to the fact that units under this command are stationed geographically intact and easily accessible. In addition, the availability of greater number of students for the identified grades is another point to choose the Northern Command.

1.6 Limitation of the Study

This study didn't come to an end without shortcomings. In view of that, certain limitations were encountered. The main problem that encountered the researcher in understanding this study was lack of reference materials on distance education print instructional materials context. The researcher feels that had it been possible to access these literatures, it would have been possible to authenticate more and come up with better work. The other problem that the researcher faced was the dispersed deployment of units due to the nature of military missions which requires more time and financial means to get access to more participants. This in turn may have its own influence on the sampling technique and the amount of data to be collected. Therefore, the researcher believes that these problems may contribute to the limitation of the study. However, efforts were made to overcome these limitations by making use of some unpublished materials, articles and journals as well as making use of the advantage of convenient sampling technique.

1.7 Definition of Key Terms

The following definitions are operational for this study.

Advance organizer: is a part of a study session which reflects the details of learning to be followed

Command: is an army unit which is directly accountable to General Chief of Staff in the organizational structure and comprises a number of divisions.

Distance education: is any educational method in which all or most of the teaching procedure is carried out by someone separated in space and/or time from the learner with the effect that all or most of the communication between teachers and learners is through an artificial medium, either electronic or print.

Division: is an army unit accountable to the head quarter of Command in the organizational structure and comprises a number of regiments.

Instructional design: deciding on the arrangement of contents, types of activities, approach that could be used for the teaching learning process in distance learning.

Instructional material: is the medium used to deliver instruction by the utilizing print instructional materials

Material designer: the responsible organ to design and plan the course/ print instructional materials.

Open learning: is an approach to learning that gives students flexibility and choice over what, when, where, how etc they learn.

Program coordinator: is a member of distance education staff who is responsible to organize, coordinate and run the distance education program.

Regiment: is an army unit accountable to the head quarter of Division in organizational structure.

Relevance: for the sake of this study the term “relevance” refers to the extent to which the print instructional materials under study are designed in a manner that they are user-friendly for the distance learners’ self-study and independent learning activities. In other words, it refers to the degree to which every print instructional material consists of essential components such as general and specific objectives, introductory sections, the content of the course comprising topics and sub-topics, exercises, summary, formative tests, feedbacks, list of references, possible responses to exercises, incorporation of clear and vivid illustrations, up-to-dateness and simple language usage in writing the content in order to facilitate teaching-learning processes through distance education. Incorporating such component parts and using clear and simple language in the print instructional

materials of distance education has been found helpful to give the distance learners with a series of detailed questions intended to make it possible for them to check that they retain all essential points or knowledge area. Precisely, it refers to whether or not the instructional materials are up-to-date, incorporate every essential element as per the theories of distance education, designed in a manner that they can serve relatively for long time, printed in a manner that they can be readable, written in simple language so that learners do not feel that they learn in isolation.

Self-Instructional Material: is material prepared for learners to learn by themselves that directs the learners to take responsibility for their failure and/or success in their learning.

Study session: is part of instructional materials which introduces the details of learning to follow, what students might achieve, the organization and structure of self-study materials and reflects what has been learnt.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviews the related literature on the definition of distance education, theoretical frame of the design of instructional materials in distance education, the frame for study session, the characteristics of distance education instructional materials and language usage in distance education instructional materials.

2.2 Defining Distance Education

Distance education has been defined in different ways. For instance Holmberg defined distance education as a system of education through which the teaching learning process is conducted by media where learners and their teachers are physically separated (Holmberg, 2005). From this definition one can learn that this form of education is conducted through the use of media in a situation where teaching and learning is taking place without physical contact between learners and their teachers.

Similarly, Kay and Rumble (1991) defined distance education as institutional-based formal education where modern media are used to bridge the physical distance between learners and their teachers as well as resources. This definition made clear that distance education is formal education conducted by institutions where resources and the learning groups are connected through modern media.

The definition provided by UNESCO seems more comprehensive. Thus, UNESCO defined the concept of distance education as follows:

Distance education is any educational process in which all or most of the teaching process is conducted by someone removed in space and/or time from the learner with the effect that all or most of the communication between teachers and learners is through an artificial medium, either electronic or print (UNESCO, 2002:22).

From UNESCO's definition it is possible to observe that distance education could include both formal and non-formal education conducted through the use of media where the learning groups are separated in time and space. Moreover, this definition has included both electronic and print instructional materials which characterize both the traditional and modern educational process.

The first two definitions are almost similar with the exception that the second definition specifically make distance education institutional based. What the entire above definitions share together is that, distance education refers to a form educational process conducted in a situation where the learning groups are physically separated. Different from the other two, UNESCO's definition about distance education clearly incorporates print as a medium to bridge the physical distance between the learning groups in addition to electronic media. Thus, this definition seems more comprehensive than the others.

In summary, from the above all definitions given to distance education by different educators, it is possible to conclude that distance education is a method of education in which the learner is physically separated from the teacher. It may be used on its own, or in conjunction with other forms of education, including for example, face-to-face. In distance education, learners are physically separated from the institution that sponsors the instruction. In general, the teaching learning process is accomplished in the physical absence of the teacher. In distance education, learners need to become involved and motivated by the instructional materials in order to acquire the skills and knowledge that are required to be obtained. This means that success of any distance education program is heavily dependent upon its quality of instructional materials. Therefore, the instructional design in distance education plays a significant role in achieving the intended objectives of the program.

2.3 The Design of Instructional Materials in Distance Education

One of the key elements that play an important role in constructive learning is the instructional design. Instructional design incorporates the ideas, plans and rules of what has to be done or could be done so as to develop instruction that explains contents,

activities, approaches, assignments and extra topics that would help to enhance learning outcomes designed in advance (Kirschner, et al, 2002).

Well designed interactive course material, either print or electronic technology based, is the base for the flourishing teaching and learning in all the flexible learning style (Kuruba, 2004). Despite the fact that the learners' attitudes about the quality of the distance education courses were influenced by a number of factors, in general, the quality of instructional materials was the core issue (Inman et al, 1999).

The writers of distance education instructional materials have to keep in mind that the learner is expected to be studying in separation and the materials must compete with various other demands on their time (Hartely, 1994). Learning should be efficient, effective and fun and the writers must help make it so. The writers need to create the same interactional situation on paper using an informal friendly tone. Hartely says that the use of active voice, use of 'we' and 'you' and the use of short sentences are helpful in maintaining the friendly tone whereas unnecessarily long words and convoluted sentences are misplaced.

In general, when talking about instructional design of distance education, it is about the idea that courses have traditionally been broken down into units, and thereafter into section of units or study sessions that will help to facilitate student learning.

2.4 A Frame for a Study Session

A study is basically divided into three parts and it is likely to make use of variety of media and resources with a study guide linking all the components together. The design features of distance education instructional materials include:

- Introduction to a study session,
- The content of a study session, and
- The conclusion to a study session.

2.4.1 The introduction to a study session

Within an introduction to a study session, regularly found an outline introducing learners to the content of the study session (an advance organizer) and a broad statement of what learners might achieve as a product of their studies (a statement of aims).

Advance organizer is used to introduce students to the detailed learning to follow, identifying the topics to be addressed and the relationship between them. The intent is to provide students with a meaningful and well organized framework for the assimilation of more detailed knowledge. Without such an introduction, students may be introduced to concepts after concepts; but without knowing where this is taking them to or why they are studying the concepts concerned does not provide learners with appropriate structure of the concepts (Melton, 2002). The advance organizer provides the students with an opportunity not only to introduce to what is to follow, but also to point out the relevance and importance of what is to be learnt, and thereby to encourage student motivation.

Statement of aims-Advance organizers introduce students to the content of the study session but they do not usually advise students on what they should be able to do on completion of their studies, and a broad statement of aims might be built into the introduction to the study session to provide learners with learning objectives that they should achieve at the end of their study.

2.4.2 The content of the study session

With regard to the content of a study session, particular emphasis is placed on three aspects of design namely; the organization and structure of self-study materials, the use of signaling devices to help guide students through the confusion of materials typically found in open and distance learning, and the inclusion of activities to ensure the involvements of the students in the process of learning.

Organization and structure- as discussed above in the advance organizer, advance organizer may be designed to provide students with broad frameworks for the assimilation of more detailed learning to follow within the study session. The assimilation of knowledge within such frameworks may also be encouraged by ensuring

that the knowledge within any given study session is presented within the same framework as that described in the related advance organizer.

Activities- where students are studying at a distance it is all too easy for them to passively accept what is being presented without thinking too deeply about the issues involved. It is therefore common in open and distance learning to try to involve students in the process of learning through the provision of activities and projects.

According to Lockwood (1992, pp. 22-49) activities may be designed to serve a variety of purposes such as those of helping learners to examine their own progress; check their understanding of issues, build up specific skills, relate what they have learnt to new context, apply issues studied to real life situation and think for themselves regarding what they could be able to achieve.

2.4.3 The conclusion to the study session

In drawing a study session to a close, it is familiar to incorporate a summary that reflects on what has been learnt and a checklist that enables learners to check what they have learnt and to determine whether they need to strengthen or enrich their learning in any way (Melton, 2002).

Summary in the conclusion to the study session gives an opportunity to reflect back on the learning that has taken place and this may be done in different ways depending on the type of learning that has taken place in the study session. The detailed learning that has taken place during the study session might usefully be placed more clearly in perspective. The implication of new ideas for society, technology and the environment may be highlighted, while note may be made of the extent to which future knowledge and understanding might build on what has been learnt.

The idea of a checklist is to provide students with a key list of objectives that enable students to check what they have achieved as a result of their studies, and to provide them with an opportunity to determine for themselves whether or not they have achieved the objectives specified for the study session (Melton, 2002).

The emphasis here is that checklists should identify as clearly as possible what students should be able to do and they should provide the means by which students can determine for themselves whether they have achieved the objectives identified. This might be done by providing students with test items or activities related to each objective, and it is these that provide additional clarity about what is required.

2.5 The Characteristics of Distance Education Instructional Materials

According to Rowntree (1986), the self-instructional materials must carry out the functions a teacher would carry out in the conventional situation—guiding, motivating, explaining, provoking, reminding, asking questions, discussing alternative answers, appraising each learner progress, giving appropriate remedial or enrichment help and so on.

As discussed above repeatedly, developing of self-instructional materials is an important and a highly skilled job for the success of distance education. Since the distance learners study in separation from their teachers and fellow students, a learner in distance mode will have to rely mainly on self-instructional materials and other packages supplied to him/her by the institution. It is therefore, necessary to prepare the study material to supplement the teacher and the learner must feel that he/she is attending his/her teachers. With this regard, many efforts have been made to make clear the unique characteristics of distance education instructional materials (self-instructional materials). For example, Roger (1981) made a pioneering effort to identify the characteristics of self-instructional materials, which may include the following but not limited to the points described hereunder:

An indication of what the learner should be able to do before taking a particular project (i.e. any pre-requisite); this implies that self-instructional materials should identify the prior knowledge of the learners. This in return will facilitate the overall process of distance learning by indicating what to learn (read) before proceeding to the next content.

The other issue by which self-instructional materials are characterized is a statement of what should be learned from the particular section (objectives). From this it is possible to

infer that self-instructional materials should inform the learners about what useful knowledge is to be gain from each portion of content.

Practice, so that the learner can see whether or not he/she has successfully reached the objectives. With regard to practice, it means that there should be activities, exercises and self-check questions through the distance learners evaluate themselves whether or not they achieve the predetermined (predefined) objectives of the learning. This should be after each and every portion of contents.

Feedback on learners' performance; distance education learning materials enable both the teachers and the learners to have feedback on the learning performance. This could be possible through work sheets that will be sent to the teachers and prompt feedback from the teachers to the learners on their performance.

Overall, the aforesaid points by which self-instructional materials are characterized indicate that the breakdown of the whole contents into manageable size is logical to make the instructional materials interesting and manageable to read. It also implies that self-instructional materials can bridge the physical distance between the learning groups if they are organized with all necessary content indeed, in manageable size it can enable the learners to precede to the next portion after mastering the former.

Since then, a lot of materials have come up in different parts of the world. In India, the Indira Gandhi National Open University (IGNOU), New Delhi, has brought out a Handbook titled 'Self-Instructional Course Unit-Handbook-5' (1989) wherein the major characteristics of the self-instructional material should be:

Self-explanatory: The content should be presented in a style so that a learner can go through the material without much external support. The content should be self-explanatory and conceptually clear. In view of that, the content is analyzed logically before it is presented. This order maintains the continuity and the consistency of the content. Thus, the self-instructional material promotes self-learning on the part of the learner.

Self-contained: Efforts should be made to make the text self-sufficient so that a learner does not hunt for additional sources or even a teacher. For this, the scope of the content of the unit should be visualized in detail. While avoiding non-essential details, only the essential details need to be presented so that unit can cover every information required by the learners and keep away all that is not necessary.

Self-directed: The study material should aim at providing necessary guidelines, hints and suggestions to the learners at each stage of learning. The self-directed material is presented in the form of easy explanations, sequential development, illustrations, learning activities, etc. The material performs the role of a teacher who can guide, instruct, moderate and regulate the learning process in classroom situations. Thus, the course material should direct the entire process of learning.

Self-motivating: In distance education system, the learners remain off the campus for most of their study time. The study materials should arise curiosity, raise problems, relate knowledge to familiar situations and make the entire learning meaningful for them. The sense of reinforcement should be strengthened at every stage for retention.

Self-evaluative: As the learners remain separated from the distance institution and the teacher, the study materials should make provisions for feedback as well. To ensure optimum learning, the learners should know whether they are on the right track. Self-evaluation in the form of self-check questions, exercises, etc, provides the learners with much needed feedback about their progress, reinforces learning and motivates them for learning. The attribute of self-evaluation course writer should develop a built-in evaluation system by giving an appropriate number of self-check exercises, activities and check your progress questions.

Self-learning: Self-instructional materials are based on the principles of self-learning. To make the content comprehensible, they (self-instructional materials) should be supported by simple explanations, examples, illustrations, activities and so on.

2.6 Language and Instructional Materials

As discussed under the above topics, distance learners are engaged in the learning process being apart from the institution and the teacher as well. Thus, it is obvious that distance learners are highly dependent on instructional materials provided to them. Therefore, the language used while writing self-instructional materials remains a critical issue taken into consideration. In light with this fact, Gauchuni and Matira (1989) have made an attempt to identify the attributes of good self-instructional materials in relation to the language to be used. Their extensive reading of various literatures enabled them to identify criteria for preparation and evaluation of self-instructional materials. The usage of language is among many other criterion developed by Gauchuni and Matira for preparation and evaluation of self- instructional materials.

According to Gauchuni and Matira (1989), the language used in self-instructional materials should be simple, precise, correct, clear, unambiguous and comprehensible. It should be in a personalized style like 'you, I, and we' and so on. The presence of humor throughout the material is essential. The vocabulary used in the self-instructional materials should be appropriate keeping in view of the mental maturity of the learners and the structure of sentences is expected to be appropriate, i.e. simple, short and clear. Furthermore, there should not be too many clauses in a sentence, not too more negative, passive and impersonal words (Gauchuni and Matira, 1989).

With regard to what discussed under literature review more particularly, in connection with instructional materials, it is possible to summarize in this way that the fate of distance education is determined by the quality of instructional materials. This is because in open and distance education system, it is instructional materials which replaces the absence of human sense. All the content to be learnt is delivered to the learners through instructional materials regardless of their type. Therefore, instructional materials are the critical elements upon which the fate of distance education system depends.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Under this chapter, issues related to design of the study, sources of primary and secondary data, sampling techniques and sampling population, data analysis techniques and ethical consideration were addressed.

3.1 Design of the Study

For the purpose of this study, case study design was used. A case study design is a kind of research design that enables to investigate a contemporary phenomenon in depth and within its real life context (Yin, 2003). The case study design is also preferable when “how” and “Why” questions are posed. In view of that, this design enabled the researcher to deeply assess the relevance instructional materials under study to the needs of distance learners posing the question how they are organized. In presenting the case under consideration, descriptive and analytical data presentation were used because they enabled the researcher to describe the state of affairs (Kothari, 2004) of print instructional materials in distance education used by MoND. Methodologically, a mixed method was employed. The reason to use the mixed method is to better understand a research problem by triangulating both numeric data quantitatively and the detail account of information qualitatively.

In this study, concurrent triangulation strategy was used because, the model is required when a researcher uses two different methods in an attempt to confirm, cross-validate, or corroborate findings within a single study (Greene et al., 1989; Morgan, 1998; Steckler, McLeroy, Goodman & Bird, 1992). This mixed method is advantageous because it is familiar to most researchers and can result in well-validated and substantiated findings. In addition, the concurrent data collection results in a shorter data collection time period compared to the sequential approach. Therefore, for this study, the researcher employed the concurrent triangulation approach.

3.2 Sampling Technique and Sampling Population

The population for this study basically relied on the Northern Command, which is found in Mekelle. Defense General Education Department was also another party on which the study depended. Defense General Education Department was selected purposively while Northern Command was selected based on convenience. Defense General Education Department was selected purposively due to the fact that the Department is knowledgeable as it is in charge of designing, producing and distributing the print instructional materials for grade 7 and 8. Northern Command was selected through convenient sampling technique because of the following reasons. First, Northern Command has a sufficient number of distance learners of the identified program compared to the rest commands and this can help the researcher to have adequate number of participants. Second, the deployment of units under Northern Command is not dispersed as units under other Commands and this will ease the situation to access all units and gather the necessary data by saving resources more importantly time resource. The study included staff (officials) of Defense General Education Department, tutors, coordinators at the Command and division levels and distance learners.

The staffs of Defense General Education Department were selected (**4 in number**) with purpose for the reason that they are the one who are responsible in designing and writing the print instructional materials. Thus, it is believed that they are knowledgeable about the problem under study and relevant data can be obtained from them. Therefore, they were selected through purposive technique. Program coordinators at the Command and division levels (**1** from Command and **1** from **2** divisions, **totally 3**) were also selected through purposive technique. Furthermore, 8 tutors were also selected through the same technique.

The total number of students of grade 7 and 8 in Northern Command is **3515** as data obtained from Northern Command General Education Department indicates. As the total number of the distance learners of the identified grade levels was not manageable, and due to the fact that the aforesaid number of learner is distributed throughout the Northern Command, based on convenient sampling technique, only learners from 2 Regiments (80

in number) which are easily accessed were chosen as respondents. With this regard, Cohen, Morrison and Lawrence (2000) indicated that convenient sampling involves choosing the nearest individual to serve as respondents. This shows that the researcher simply chooses the sample from those to whom he/she has easy access. The main assumption associated with convenient sampling is that the target populations are homogeneous. Strengthening this idea it is stated in UNESCO International Institute for Educational Planning module 3 that convenient sampling elements may be drawn into the sample because they just happen to be situated spatially or administratively, near to where the researcher is conducting the data collection. Therefore, based on this justification, i.e. geographical location of the units from where the respondents selected and homogeneity of the population, the researcher decided to use convenient sampling technique and indeed, the sample population were determined through this technique.

3.3 Source of Data

There are two types of data sources, primary and secondary data (Creswell, 2008). Accordingly, in an attempt to assess the relevance of distance education print instructional material under MoND, the researcher relied on primary and secondary data sources. Accordingly, the primary data was collected from the distance learners, program coordinators at different levels, officials of Defense General Education Department and tutors through questionnaire and interview. The secondary data was mainly obtained from content analysis of distance education print instructional materials under MoND and reports of Divisions to Command, reports of Command to the Defense General Education Department and reports of the department to the Head Quarter. Content analysis helped the researcher to cross-check the data obtained from the participants through interview and questionnaires.

3.4 Data Collection Instruments

The study employed questionnaire, interview and content analysis to gather data from both primary and secondary sources.

3.4.1 Questionnaire

In the questionnaire used for data collection, both open and closed ended items were included. The open-ended questions helped the researcher to give freedom for the participants to write what they feel about the problem under study. In other words, open ended items allow free responses. Supporting this, Somech and Lewin cited in Desalegn (2014:27) explains that open-ended items are also considered as appropriate to extract sensitive information. On the other hand, closed ended questions were used because they are appropriate for respondents to react (answer) quickly and easy to analyze using statistical techniques. The questionnaire was developed both in Amharic and English to facilitate easier communication with the participants. After incorporating comments from the advisor and translating questionnaires from English to Amharic, pilot test was conducted on 14 people to check whether or not the questionnaire was understandable. Conducting pilot survey enables to shape the questionnaire prior to final data collection. Kothari (2004) noted that it is always advisable to conduct pilot study for testing the questionnaire. So that, it is underlying principle to conduct pilot test prior to official data collection to revise an instrument based on the test result. In addition, the Amharic version questionnaire was censured by two Doctorial Candidates from Faculty of Law and Governance and Department of Curriculum and Instruction, Addis Ababa University that enable the researcher to obtain constructive comments. Accordingly, the equivalent word for print instructional materials in Amharic was changed into module due to the fact that the participants under pilot study were not able to understand the word. They were not able to understand the word print instructional materials because the print instructional materials have been distributed to the learners in the name of module.

Then, orientation was given to the participants. The orientation was about the purpose of the study, the overall content of the questionnaire and how to respond to the questionnaires some of the core issues considered during the orientation. Finally, 80 questionnaires were distributed to the participants and 78 of them were properly filled and returned back while two of them discarded due to the fact that all items in the questionnaire were not responded by the participants.

3.4.2 Interview

In addition to questionnaire, the study employed semi-structured interview. The semi-structured interview was conducted with the staff of Defense General Education Department, tutors, Command's and Divisions' program coordinators. Even though interview has some disadvantages such as challenges in relation to expense and time, the researcher selected this instrument for the reason that interview permits face-to-face contacts with respondents that allows the interviewer to explain or help clarify questions and increase the likelihood of useful responses. In other words, interview allows to produce a higher response rate. In connection to this, Seidman (2006) noted that interviewing allows to put behavior in context and provides access to understand their action. Therefore, an interview guide was prepared by the researcher and conducted in face-to-face interaction. Amharic language was used during interview to ease the interaction and finally translated to English language with due care in order not to miss or distort respondents' views. While conducting the interview, notebook was used to capture the information provided by the participants.

3.4.3 Document (Content) Analysis

Document (content) analysis was also used to gather necessary information about the relevance of distance education print instructional materials' content. Document (Content) analysis helped the researcher to cross-check the data obtained through questionnaire and interview. In other words, content analysis was conducted to strengthen the data obtained through questionnaires and interview. In support of the above idea, Best and Khan (1989) justified that document analysis are important and relevant source of data, and helpful in yielding information. Due to this reason, the existing instructional materials of distance education for 7th and 8th grade and some other relevant documents such as reports from Divisions to Command, reports from Command to the Defense General Education Department and reports from the department to the Head Quarter were assessed and analyzed.

3.5 Data Analysis Techniques

Both qualitative and quantitative approaches were employed in analyzing and interpreting the data. Data gathered through questionnaire was analyzed and interpreted via quantitative approach using descriptive statistics like percentage. During analyzing data, both strongly agree and agree are analyzed as encouraging responses while strongly disagree and disagree are analyzed as discouraging responses. The data gathered through interview and content analysis was analyzed and narrated through qualitative approach.

3.6 Ethical Consideration

To make the study process professional and ethical, efforts were made. In this regard, the researcher tried to clearly inform the participants about the purpose of the study that it is purely academic. The purpose of the study was introduced in the introduction part of the questionnaire and interview guide. The researcher confirmed that confidentiality will be protected. In addition, the study was based on the consents of the participants.

During data presentation, analysis and interpretation, any response of the participants was impersonalized. Moreover, all materials that were used for this study were properly acknowledged.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the presentation, analysis and interpretation of data gathered from sample population. It consists of two parts. The first part is regarding presenting personal information of the sample population while the second part deals with analysis and interpretation of the findings of the study.

In this study, 80 students (40 from grade 7 and 40 from grade 8) were included. Questionnaires were distributed to all students and 78 of them were fully filled and returned while two of them were discarded due to the fact that they were not filled properly. Therefore, analysis was made based on the data obtained from the total number of 78 respondents. In addition to questionnaire, content analysis and semi-structured interview were carried out with tutors and program coordinators at division, command and head quarter levels to corroborate the data obtained through questionnaire.

Interpretation and discussion of the data obtained through questionnaire, interviews and content analysis were carried out by taking into consideration theories discussed in the literature review.

4.1 Demographic Information of Respondents

This part gives some basic background of the respondents that helps to know them with the assumption that it might have some kind of relationship shed light on the relevance of distance education print instructional materials to the needs of distance learners.

Accordingly, summary of the demographic information of the respondents was presented in terms of sex, age, educational status and work experience in table 1 here under.

Table 1: Distribution of Respondents by Sex, Age, Educational Status and Service Year

No	Item		Frequency	Percent
1	Sex	Male	74	94.9
		Female	4	5.1
		Total	78	100
2	Age	18-22	45	57.7
		23-27	29	37.2
		28-32	3	3.8
		33-37	-	-
		38-42	1	1.3
		Total	78	100
3	Educational Status	7 th Grade	38	48.7
		8 th Grade	40	51.3
		Total	78	100
4	Service Year	<= 5	45	57.7
		6-10	30	38.5
		11-15	2	2.6
		16-20	1	1.3
		Total	78	100

As can be observed from table 1 under item 1, among 78 student respondents 74 (94.9%) were male and 4 (5.1%) were females. This shows that the number of females enrolled in grade 7 and 8 are insignificant. This might be due to either the number of females serving in the military is trivial or there might be a possibility that females in the military are well-educated compared to male or there might be a possibility that there is no conducive situation that inspires females in the military to be involved in the program thus they are not enrolled in grade 7 and 8 distance education program. Item 2 in the same table shows the age distribution of student respondents. As the data shows, majority of the student

respondents, (45- 57.7%) were in the age range of 18-22. The second largest number of the student respondents (29- 37.2%) were in the age range of 23-27 while 3 (3.8%) and 1 (1.3%) were in the age range of 28-32 and 38-42 respectively. From the data it is possible to conclude that most of the students that are enrolled in grade 7 and 8 of distance education program under MoND are young compared to the age ladder in the institution. In other words, this shows that most of the students of grade 7 and 8 are very young and they have relatively a long time ahead to serve in the military so that enabling them by scaling up their knowledge and skill through educational program remains unquestionable.

With respect to educational status of respondents, as indicated in table 1, item three, 40 (51.3%) were grade 8 students while the remaining number 38 (48.7%) of the total number respondents were grade 7 students. All the questionnaires were distributed to the aforementioned number of respondents enrolled in grade 7 and 8 due to the fact that they are the main source of data for the topic under the study.

Regarding service year of the respondents, it can be seen in table 1, item 4 that most of the respondents (45- 57.7%) had a total service of ≤ 5 years. This shows that many of the students of grade 7 and 8 had a short service year in the military. In other words, these people are not experienced as such with the military profession. So, in case of any challenge, they may easily quit the program. There were also 30 (38.5%) respondents who had a total service year of 6-10 as seen in table 2, item four. Out of the total number of respondents, very few had relatively a long service year that includes 2 (2.6%) and 1 (1.3%) having a total service of 11-15 and 16-20 years respectively. In general, more than half of the student respondents at large were with the service of ≤ 10 years. This shows that they have a very long time to serve in the military ahead.

4.2 Analysis and Interpretation of Data

Data obtained through different instruments (questionnaire, interview and content analysis) were discussed and analyzed here under. The discussion and analysis were carried out in connection with basic research questions (the design of distance education print instructional materials, the structure of distance education print instructional

materials, the content and relevance of distance education print instructional materials and language usage in distance education print instructional materials) based on the theories discussed in the review of related literature.

4.2.1 The design of distance education print instructional materials

Under this leading question, issues related to physical design of the print instructional materials such as the design of the cover page, durability of cover page, durability of papers used in the print instructional materials, the binding of print instructional materials and the type size (font size) of print instructional materials were discussed and analyzed based on the data obtained through questionnaire and observation.

In addition, issues connected with the designing process and the designing model of the distance education print instructional materials were discussed and analyzed based on the data obtained through interview conducted with program coordinators at different levels. Accordingly, the summary of the data obtained through questionnaire, interview and observation under this leading question is presented here under as follows.

Table 2: The Physical Design of Distance Education Print Instructional Materials

No	Item	5		4		3		2		1	
		No	%	No	%	No	%	No	%	No	%
1	The design of the cover page is attractive	15	19.2	22	28.2	24	30.8	14	17.9	3	3.8
2	The cover page is durable	7	9	25	32.1	9	11.5	15	19.2	22	28.2
3	The paper used in the print instructional materials is durable	16	20.5	45	57.7	11	14.1	4	5.1	2	2.6
4	The binding of print instructional materials is durable	13	16.7	18	23.1	14	17.9	10	12.8	23	29.5

Key: 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

As can be seen in table 2, item one, 37 (47.4%); of the respondents showed their agreement with attractiveness of the design of the cover page whereas, 17 (21.7 %) of the total student respondents showed their disagreement with the idea related to the attractiveness of the design of cover page. On the other hand, a significant number of student respondents 24 (30.8%) remained undecided even though the majority of respondents agree with the attractiveness of the cover page. This indicates that there is a knowledge gap with regard to what does the cover page of print instructional materials look like in order to be attractive.

In connection to the attractiveness of the print instructional materials cover page, the data obtained through interview conducted with tutors (teachers from local public schools) revealed that the cover page of MoND’s distance education print instructional materials is not promising. Accordingly, one of the tutors said:

The cover page is not attractive. It doesn’t have attractive illustrations. It does not use different colors. All the distance education print instructional materials’ cover pages illustrations are drawn with just black and white color (T-A, 10/08/2008 E.C).

Similarly, the other tutor said:

The cover page of MoND's distance education print instructional materials is not original. Duplicated copies are distributed to the students. The illustrations on the cover page of all distance education print instructional materials are not vivid, because they were drawn only with black and white color. Therefore, I can say that their cover page is not attractive (T-B, 10/08/2008).

The above idea was also substantiated by the data obtained through observation while conducting content analysis. As observed by the researcher, illustrations on the cover page of MoND's distance education print instructional materials were drawn with black and white colors. Different colors were not used to make the cover page attractive and to make the illustrations on the cover page vivid.

Regarding item 2 of table 2, the data indicates that 32 (41.1%) of the total respondents agreed that the cover page of the print instructional materials is durable. Whereas, 37 (47.4%) of the total respondents disagreed that the cover page of print instructional materials is durable. An insignificant number of respondents 9 (11.5%) were unable to decide whether the cover is durable or not.

However, the data obtained through interview conducted with tutors strengthens the idea that the cover page of distance education print instructional materials under consideration is not durable. All the tutors with whom interview was conducted ascertain that the cover page of distance education print instructional materials is not strong and long lasting.

For instance, one of the tutors said:

The cover page is not strong and long lasting. It can't resist water and other liquid things. Due to the fact that military personnel face so many challenges while accomplishing its mission and due to the fact that these instructional materials remains with them under any circumstances, their cover page must

be strong, long lasting and water proof. However, the reality at hand doesn't show this fact (T-A, 10/08/2008 E.C).

The other tutor said:

The cover page is not durable because it is not strong and water proof that can resist any liquid things so that it can easily be distorted. To be specific, the cover page of the print instructional materials doesn't deserve the members of defense force who are expected to deal with so many challenges as these print instructional materials remain with them whenever and wherever any difficulties (T-B, 10/08/2008 E.C).

There was also observation made by the researcher with respect to the cover page of the print instructional materials. The observation made ascertained the data obtained through questionnaire and interview conducted with the tutors. In other words, the cover page of the materials is not strong and long lasting. In addition, it can't resist any liquid things like water and sweat. Overall, the data obtained through all instruments (questionnaire, interview and observation) indicate that the cover page of the print instructional materials is not durable and long lasting. Therefore, it is possible to conclude that the cover page of the materials is not appropriate for distance learners that work in challenging circumstances.

In connection with paper used in the print instructional materials (item 3 table 2), the data shows that majority of the respondents 61 (78.2%) of the total respondents showed their agreement that the paper is durable. On the other hand, as the data shows a few number of the respondents 6 (7.7%) disagreed that the paper is durable while a slight number of respondents 11 (14.1%) were unable to decide whether the paper used in the print instructional materials is durable or not.

In line with the durability of the paper used in the print instructional materials, the data obtained through interview also ascertained that the paper used in the print instructional materials is durable. Almost most of the tutors with whom interview was conducted agreed that the paper in the print instructional materials is appropriate. Observation made

by the researcher during content analysis was also in support of the data obtained through questionnaire and interview. In general, it is possible to draw a conclusion that the paper used in the print instructional materials is appropriate for distance learners and it is appreciable in relative speaking.

With respect to item 4 (table 2), the data shows that 31 (39.8%) of the total respondents reported that the binding of print instructional materials is durable. On the contrary, 33 (42.3%) of the total respondents showed their agreement with the idea that the binding of print instructional material is not durable. On the other hand, in connection with durability of the binding of print instructional materials, 14 (17.9%) of the respondents remained undecided. The data obtained from open-ended questions in the questionnaire substantiated the above idea that the binding is not durable. According to most of the respondents who explained their opinion via open ended questions, the binding is not flexible and convenient to turn the pages easily. They also further explained that the binding can easily be damaged in an attempt to turn the pages. Observation made by the researcher while content analysis was also in support of the idea that stipulates about the non-durability of the binding of the instructional materials.

This shows that there is a gap with regard to the durability of binding of print instructional materials. Furthermore, the binding is not flexible and convenient for the distance learners who are expected to deal with their learning materials frequently in a challenging situation. In other words, the data show that the binding of the print instructional materials is inappropriate.

In addition to the above items, there was also interview conducted with officials of distance education program concerning the designing process of the print instructional materials. There was also interview conducted with them regarding which model they employed to develop and produce the print instructional materials under study.

One of the officials with whom interview was conducted stated his idea:

At a time when it was decided to begin distance education for 7th and 8th grades, need assessment was not conducted due to certain reason. The main

reason not to conduct need assessment was the time constraint because the decision was to begin the program as quick as possible. What was done at a time was just adapting the content from the existing materials for regular (face-to-face) program. This makes us not to fully know our students which in return has its own impact on the learning process. From my point of view, our students lack knowhow that distance education is basically student-centered (self-learning) and complain for minor issues (01, 19/08/2008 E.C).

The other official also shared what was said by the former saying that:

At the beginning when it was decided to launch distance education program, need assessment was not conducted due to time constraint. But attempts were made to gather feedbacks from stakeholders so as to consider in the learning –teaching process. With regard to the designing model, we just adapted the content from the materials for the regular program and indeed, we made them suitable for self-learning by incorporating different activities, exercises model answers for the activities, checklists and others (02, 19/08/2008).

The others officials with whom interview was conducted shared the same idea that during the development of the existing print instructional materials for 7th and 8th grades, need assessment was not carried out.

From the officials opinion it is possible to conclude that the existing print instructional materials were not developed based on the needs of distance learners rather they were adapted from the existing materials at a time for regular program. This means that the concern of the learners was neglected and this in return has its own impact on the teaching-learning process as said above by one of the officials, for instance the learners are complaining for minor issues due to lack of awareness.

Table 3: The Design of Type Size (Font Size) of Print Instructional Materials

No	Item	5		4		3		2		1	
		No	%	No	%	No	%	No	%	No	%
1	The type size unit heading is appropriate	31	39.7	34	43.6	2	2.6	8	10.3	3	3.8
2	The type size of sub-unit is appropriate	31	39.7	36	46.2	1	1.3	4	5.1	6	7.7
3	The type size of sections is appropriate	18	23.1	44	56.4	7	9	6	7.7	3	3.8
4	The type size of sub-section is appropriate	23	29.5	44	56.4	3	3.8	4	5.1	4	5.1
5	The type size of main body is appropriate	29	37.2	36	46.2	7	9	5	6.4	1	1.3

Key: 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

Table 3 gives a summary of students' response on the appropriateness of type size (font size) of MoND's distance education print instructional materials. As the table shows, almost most of the student respondents reported the appropriateness of type (font) size of the print instructional materials of each item. That is, 65(83.3%) of the total respondents ascertained that the type size (font size) of unit headings of the print instructional materials is appropriate. Whereas, 11(14.1%) of the total respondents disagree that the type size of unit headings is appropriate while 2 (2.6%) remains undecided. Regarding item 2 of the same table, 65 (85.9%) of the total respondents showed their agreement that sub-units in the print instructional materials were written with appropriate type (font) size. In contrast to this, 10 (12.8%) of the total respondents reported that the type (font) size of sub-units is not appropriate while 1 (1.3%) of the total respondents remain undecided.

Item 3 of the same table gives a summary of response about the appropriateness of the type (font) size of sections. As the data indicates, 62(79.5%) of the total respondents reported that the type size sections in print instructional materials under study is

appropriate. 9 (11.5%) of the total respondents disagreed with the appropriateness of the type size of sections when 7 (9%) of the total respondents remain undecided. With regard to item 4 table 3, which is about the type size of sub-sections, 67 (85.9%) of the total respondents reported the appropriateness of the type size while 8(10.2%) of the total respondents disagreed with the appropriateness of the type size of sub-sections and 3 (3.8%) remains undecided.

Item 5 of the same table gives a summary of the responses with respect to the type size of the main body of the print instructional materials under study. The data indicates that 65 (83.4%) showed their agreement with regard to the appropriateness of the type size of the main body of the print instructional materials. In contrast to this, only 6 (7.7%) of the total respondents disagreed with the appropriateness of the type size of the main body of the materials while 7 (9%) remains undecided.

Overall, the data in the table 3 shows that, each part of the print instructional materials was written in appropriate type (font) size. As seen above, the calculated percentage of each item is very high and this reveals that the appropriateness of the type (font) size of each part of the print instructional materials under MoND is prepared properly with relevant font size. This implies that the print instructional materials are suitable for reading and this may arise the interest of distance learners to read.

Results obtained from content analysis of the print instructional materials are in support of the finding of the table. Content analysis carried out by the researcher on print instructional materials of different subjects (Amharic, Chemistry, Civic and social studies of grade 7 and Biology, English, Chemistry and Civic education of grade 8) indicates that headings of units, lessons and discussion questions of the instructional materials under study were written in appropriate font size.

4.2.2 The structure of distance education print instructional materials used in MoND

Under this broad research question, the point of discussion is to examine how distance education print instructional materials were structured. Accordingly, issues related with

the structure of print instructional materials such as whether the whole content is structured into small units or not, whether units are broken down into sub-units and sections; sections into sub-sections are discussed and analyzed based on the data obtained through questionnaire distributed to student participants, interview conducted with tutors and program coordinators and content analysis carried out by the researcher.

Accordingly, the summary of data obtained through questionnaire with regard to the structure of distance education print instructional materials is presented here under as follows.

Table 4 (a): The Structure of the Print Instructional Materials

N o	Item	5		4		3		2		1	
		N o	%	N o	%	N o	%	N o	%	N o	%
1	A list or outline of content is provided in the beginning of each unit	2	2.6	5	6.4	6	7.7	37	47.4	28	35.9
2	The content is structured into small unit	20	25.6	46	59	4	5.1	6	7.7	2	2.6
3	Units are structured into sub-units	26	33.3	41	52.6	3	3.8	3	3.8	5	6.4
4	Sub-units are structured into sections	24	30.8	35	44.9	11	14.1	7	9	1	1.3
5	Sections are divided into sub-sections	23	29.5	38	48.7	8	10.3	9	11.5	-	0
6	Each units, sub-units, sections and sub-sections have a title	31	39.7	36	46.2	5	6.4	5	6.4	1	1.3

Key: 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

Table 4 (a) deals with the students' response in each item regarding the content structure of print instructional materials under study. As it can be seen from the table, almost all items except item 1, most of the respondents agreed that the structure of instructional materials under the study is presented properly. Accordingly, regarding the structural

arrangement of the contents of the print instructional materials into small units the great majority of the respondents 66 (84.6%) have expressed their agreement while 8 (10.3%) of the respondents disagreed. With regard to the breakdown of units into sub-units as shown in the table under item 3, the great majority of the respondents 67 (85.9%) agreed however, very few respondents 8 (10.3%) disagreed. Pertaining the division of sub-units into sections, most of the respondents 59 (75.7%) showed their agreement while very few respondents 8 (10.3%) disagreed. As shown in the above table under item 5, respondents were asked whether sections of the instructional materials are divided into sub-sections. Accordingly, most of the respondents 61 (78.2%) expressed their agreement while 9 (11.5%) of the respondents disagreed. Lastly, as shown in the table under item 6, respondents were asked as to whether the units, sub-units, sections and sub-sections have their own titles. Accordingly, the great majority 67 (85.9%) of the respondents agreed while only 6 (7.7%) of the respondents disagreed.,

The researcher's observation of instructional materials under study while content analysis (Amharic, Chemistry, Civic and social studies of grade 7 and Biology, English, Chemistry and Civic education of grade 8) confirmed that the whole content of print instructional materials was structured into small units while units were divided into a number of sections, sub-sections and lessons.

With regard to a list or outline of content, the researcher ascertained through content analysis that the outline of content is provided in case of some course in the beginning of the first module even though each course is organized into two modules while in case of some other it is provided in the beginning of both (the first and the second) modules. Therefore, if someone wants to know the content of the second module, he/she needs to refer to the first module. In addition, there is no page number where to find the content. For instance, there is no list of contents for Amharic and Chemistry of grade 7 and Biology and Chemistry of grade 8 subjects in the second module. However, there was an attempt to provide a list of contents for the second module of English subject of grade 8, but it was only list of contents of two units out of 10 units of which the module is consisted of.

This indicates that the existence of inconsistency with regard to providing list or outline of contents in the beginning of each print instructional material so as to make the contents clear to be covered by the distance learners; even those presented contents were haphazard in their presentation.

Table 4(b): **The Components of Print Instructional Materials**

No	Item	5		4		3		2		1	
		No	%	No	%	No	%	No	%	No	%
1	Each unit has an objective	32	41	36	46.2	4	5.1	5	6.4	1	1.3
2	Each unit has an introduction	28	35.9	45	57.7	1	1.3	3	3.8	1	1.3
3	Each unit has self-check questions	28	35.9	43	55.1	3	3.8	3	3.8	1	1.3
4	Each unit has model answers	25	32.1	42	53.8	5	6.4	2	2.6	4	5.1
5	Each unit has a summary	24	30.8	43	55.1	4	5.1	5	6.4	2	2.6
6	Each unit is self-contained	30	38.5	42	53.8	2	2.6	4	5.1	-	0
7	Each unit is self-explanatory	26	33.3	42	53.8	5	6.4	3	3.8	2	2.6
8	Each unit is self-directed	32	41	39	50	1	1.3	4	5.1	2	2.6
9	The sequence of the units is logical	27	34.6	42	53.8	5	6.4	4	5.1	-	0
10	In each unit, there is a link between sections	24	30.8	45	57.7	4	5.1	5	6.4	-	0
11	There is a link between paragraphs	22	28.2	47	60.3	6	7.7	5	6.4	-	0

Key: 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

Table 4 (b) indicates the distance education print instructional materials were structured as it has to be. The data in table 4(b) for item 1 up to 11 are almost the same showing that most of the student respondents reported saying strongly agree and agree. That is, 66(87.2%) of the total respondents reported that each unit of the print instructional materials under study has an objective while 6 (7.7%) of the total respondents reported that there is no objective for each unit of the instructional materials under study. Results obtained from content analysis also support the finding of table 4 (b). Content analysis

conducted on some print instructional materials such as Chemistry, Amharic, Social studies and Civic Education of grade 7 and Chemistry, Biology, English and Civic Education of grade 8 indicate that objectives were incorporated for each unit of the print instructional materials under the study.

With respect to unit introduction, as it was indicated in table (b), 73 (93.6%) of the total participants report revealed that each unit of the print instructional materials under study has introduction. Very little (insignificant) number of the total respondents reported that there was no introduction for each unit, i.e 4 (5.1%) of the total respondents reported that there was no introduction for each unit. However, the researcher's observation while content analysis on some of the print instructional materials has confirmed that there was incorporation of introduction part for each unit of the print instructional materials.

The other issues raised under the leading question regarding content of print instructional materials used in MoND were incorporation of self-check questions and model answers for the questions. With respect to this, in distance education print instructional materials, activities should be used to help break the content into suitable learning blocks. They should encourage and motivate and enable the students to gauge their understanding and progress (Murphy, 2000). According to Lockwood (1992: 22-49) activities may be designed to serve a variety of purposes such as those of helping students to do the following: Monitor their own progress, check their understanding of issues, develop specific skills, apply what they have learnt to new context, relate issues studied to real life situation and think for themselves.

As shown in table 4(b) item 3 and 4, 71(91%) and 67 (85.9%) of the total respondents reported that there are self-check questions and model answers for the self-check questions respectively.

In connection with the issue of content of print instructional materials under study, content analysis conducted on some of the materials was also in support of the above finding. The result obtained from content analysis ascertained that there were self-check questions after each learning lesson in the name of self-test exercise and there were also

answers for the questions after each unit (at the end of each unit). In addition, there were also check-lists for each learning units through which the distance learner would check his/her performance by putting tick (√) or (x) mark whether or not he/she can perform the given tasks.

Regarding item 5 table 4 (b), the data indicates that 67 (85.9%) of the total respondents reported that there was a summary for each unit of the print instructional materials under study. Whereas, 7 (9%) reported that there is no summary for each unit of the print instructional materials under study while 4 (5.1%) remained undecided.

The result obtained through content analysis also confirmed that there was a summary part for each unit of the print instructional materials. Unit summary comes at the end of every unit before answers for self-test exercises.

Table 4 (b) also presented data with regard to whether or not print instructional materials under study are self-contained, self-explanatory and self-directed. As the data in the table item 6, 7 and 8 shows, 72(92.3%), 68 (87.1%) and 71 (91%) of the total respondents reported that the print instructional materials are self-contained, self-explanatory and self-directed respectively.

Table 4 (b) further presented data about the sequence of units, the link between sections and paragraphs in each section of the print instructional materials under the study. Accordingly, 69(88.5%), 69(88.5%) and 69(88.5%) of the total respondents have ascertained that the sequence of units was logical, there was the link between section and between paragraphs respectively.

Interview conducted with Defense General Education Department officials confirmed the findings in table 4 (a) and (b). One of the officials with whom interview was conducted explained his opinion as follows:

Distance education print instructional materials used in MoND were deeply analyzed and censured by different experts more specifically by experts from Addis Ababa City Administration Education Bureau before letting them to be

published. Therefore, the print instructional materials incorporate what distance education learning materials should incorporate and properly structured (02, 19/08/2008).

The other interviewee also shared the above idea explaining his opinion:

The print instructional materials used in MoND which are under study incorporate all relevant contents what distance education print instructional materials should involve such as objectives of each unit, introduction, self-test questions answers to self-test questions and many others (03, 19/08/2008 E.C).

Interview conducted with tutors (civilian teachers from local public schools) also strengthened the above findings.

One of the teachers (tutors) with whom interview was conducted stated that:

The content of print instructional materials were broken-down into small parts which enable them to consist necessary portion such as objectives, introduction, different activities like self-check questions and their answers. However, there is inconsistency in providing list or outline of contents and there is no page number where one can find the required topics (T-A, 19/08/2008).

Almost all the tutors who participated in the interview confirmed that the print instructional materials under study were structure properly, i.e. the contents of print instructional materials were broken-down into small parts (the whole content structured into small units, units into lessons and lessons into a number of sub-lessons). In addition, they also ascertained that the print instructional materials under study have incorporated necessary contents such as objectives, introduction, self-check questions, model answers of self-check questions, and summary for each unit and etc. However, they pointed out that there was inconsistency in providing list or outline of the content to be covered in a given print instructional material in the beginning of each unit even each material. For

instance, most of module 2 of every subject (course) of the print instructional materials under study has no list or outline of contents. Even those modules which have list or outline of contents hadn't have page number where to find the contents as to the tutors.

The researcher observation during content analysis of print instructional materials under study also confirms the finding. As to the researcher observation while conducting content analysis, there is no consistency with regard to providing list or outline of contents throughout the print instructional materials. For example, there is an attempt to provide list of content in English module 2 while the others don't have list of content of module 2.

4.2.3 The relevance and organization of the contents of print instructional materials

In connection with the relevance and organization of the contents of the print instructional materials, many issues were analyzed and discussed. Issues related to contents organization based on the prescribed syllabus of the course, sequencing and arranging of the contents in accordance with the mental maturity of the learners; making the contents free from redundancy, the up-to-dateness of the contents are discussed. Furthermore, points related to presentation of illustrations in various forms, the vivid nature of illustrations and the clarity of illustrations obtained from respondents were given attention and presented in table 5 in the discussion to be followed.

Table 5: The Relevance and Organization of Print Instructional Materials

N o	Item	5		4		3		2		1	
		N o	%	N o	%	N o	%	N o	%	N o	%
1	The content is in accordance with the mental maturity of the learners	25	32.1	44	56.4	1	1.3	8	10.3	-	0
2	The content are free from redundancy	27	34.6	41	52.6	7	9	3	3.8	-	0
3	The content is up-to-date	28	35.9	36	46.2	6	7.7	6	7.7	2	2.6
4	Illustrations in a variety of forms are included	27	34.6	39	50	5	6.4	6	7.7	1	1.3
5	Illustrations are clear	4	5.1	22	28.2	11	14.1	24	30.8	17	21.8
6	Illustrations are vivid	4	5.1	20	25.6	14	17.9	23	29.5	17	21.8

Key: 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

As presented above, Table 5 summarizes students' response to all items related to the relevance and organization of the contents of print instructional materials under study. Accordingly, item 1 table 5, 69 (88.5%) of the respondents expressed their agreement that the contents of print instructional materials are organized in accordance with the maturity level of the learners while 8 (10.3%) of the respondents disagreed.

However, interview conducted with tutors (civilian teachers from local public schools) in this regard, indicates that the contents are not in accordance with the mental maturity of the learners. All teachers with whom the interview was conducted argued that the contents of print instructional materials seem that the learners' mental maturity (level of understanding) has not been taken into account.

For instance, one of the tutors (a Chemistry teacher) said:

The content of the materials doesn't take into consideration the mental maturity of the learner from my point of view. I say this because some of the

contents of grade 7 are taught in grade 9 in regular education. For example, the atomic model existed here in grade 7 Chemistry module is the content of grade 9 in regular education (T-A, 10/08/2008 E.C).

The other tutor (Biology teacher) shared the above idea. He explained his idea that:

In my opinion, the content of the print instructional materials is not coincided with the grade levels. For instance, regarding grade7 biology, there is content from grade 8 which deals with levels of organization in multi-cellular organisms. As to the national curriculum framework, this content is for grade 8. On the other hand, there are contents which are omitted from grade 7 biology when national curriculum framework suggests to be taught (T-C, 10/08/2008 E.C)

Other tutors (teachers) with whom interview was conducted had the same idea that the contents of print instructional materials under study are not in accordance with the mental maturity of the learners which is above the learners mental maturity level. From their point of view, the contents are not in line with the national curriculum framework and syllabus derived from the regular curriculum framework.

The above mentioned two data obtained through questionnaire distributed to learners and interview conducted with tutors were contradicting. This might happened due to many reasons. The first reason might be the level of understanding of the learners is low compared to tutors (teachers). Therefore, they couldn't identify the difficulty level of each subject. The other reason related to the learners is that their attachment to their learning materials. With respect to this, the researcher tried to know how often the learners spend their time studying and made informal conversation with some of the learners. Unfortunately, most of them replied that all the time they were busy and don't have time to study thoroughly. This might be also a gap related to learners in identifying the difficulty level of the materials. The age of the learners on the other hand can be also a reason because all the learners are adults and therefore, they might be able to understand the subject matter.

On the other hand, those teachers (tutors) with whom the interview was conducted are very experienced having 12 years and above service years. Therefore, from their experience, they can easily identify the difficulty level of a given subject. Not only because of their experience, but also they have a knowledge with regard to the national education policy and curriculum framework. Thus, they can easily identify the content's difficulty level comparing with the regular one. Therefore, the aforementioned factors in relation to the learners and the tutors can be reasons for the existence of contradictions between the data obtained through questionnaire distribute to the learners and interview conducted with the tutors.

Nevertheless, the results obtained from content analysis indicate that the contents are not in accordance with the mental maturity of the learners. The researcher compared the contents of the print instructional materials under study with the national curriculum framework of 2010 G.C and syllabus of 2011 G.C derived from this curriculum and text books of some subjects of the same level (grade 7 and 8). In view of that, the researcher understood that the contents of the print instructional materials under study are not in line with the national curriculum framework and syllabus. Indications for this finding are: there are contents excluded from print instructional materials. For example, the topic "living in Africa" which deals with the people, location and size of Africa, ancient civilization in Africa and etc... is omitted from grade 7 geography while this is included in regular education of the same level.

On the other hand, there are a number of contents included in to the print instructional materials under study with no consideration of grade level of the students while the learners are expected to sit for the same regional exam of grade 8 with regular students. For instance, chapter 8 which deals with Oxygen, Hydrogen and Redox Reaction is incorporated into grade 7 chemistry while it should be content area to be learnt in grade 9 as to national curriculum framework and syllabus. Human diseases other than sexually transmitted are incorporated into grade 8 content while it should be for grade 10 as the national syllabus suggests. What was said by the tutors such as incorporation of "atomic model" into grade 7 chemistry from grade 9 and "levels of organization in multi-cellular

organisms” into grade 7 from grade 8 were also observed as unfit to the learners’ maturity level during the content analysis.

Overall, results obtained through content analysis are in support of findings obtained through interview conducted with tutors. Thus, it is possible to conclude that there is a gap in this regard and the contents of print instructional materials under study are not in accordance with the mental maturity of the learners.

As shown in table 5 under item 2, respondents were asked whether the contents of the print instructional materials are free from redundancy. Accordingly, 68(87.2%) of the respondents agreed but, insignificant number 3 (3.8) disagreed. Regarding the up-to-dateness of the content of the print instructional materials, 64 (82.1%) of the respondents showed their agreement while 8 (10.3%) disagreed. With regard to the incorporation of illustration in the print instructional materials, the great majority of the respondents 66 (84.6%) agreed while 7 (9%) of the respondents disagreed. Respondents were also asked whether the illustrations in the print instructional materials are clear and vivid. In view of that, 41 (52.6%) and 40 (51.3%) of the respondents disagreed while 26 (33.3%) and 24 (30.7%) of the respondents agreed respectively.

Interview conducted with the tutors also confirmed the above result obtained through questionnaire responded by the student participants. Almost all tutors have confirmed that the contents are free from redundancy regardless of no consideration of difficulty level as discussed above.

However, interview conducted with tutors is in contrast to the above finding obtained through questionnaire, which was responded by learners. From the tutors’ point of view, the contents of the print instructional materials under study are not in line with the current national curriculum framework and syllabus. Interview conducted with officials of Defense General Education Department also ascertained that the contents for grade 7 and 8 remained unrevised since 2002 G.C while the national curriculum was revised a number of times. Results obtained through both interviews conducted with tutors and Defense General Education Officials contradicted with results obtained through

questionnaire responded by learners. The researcher assumed that this contradiction might happen due to a number of reasons discussed under item 3 of table 5. Hence, the researcher conducted content analysis on some print instructional materials to triangulate the contradiction happened between results obtained from questionnaire and interviews. Accordingly, the content analysis conducted on some of the print instructional materials under study supports the result obtained from interview conducted with tutors and officials from distance education program of MoND. Accordingly, in terms of their publication date, most of the print instructional materials on which content analysis made was old, which were published in 2002 G.C. For example, Chemistry, Social Studies, Amharic and Biology from grade 7 and Chemistry from grade 8 can be mentioned. Some others such as civics education of grade 7 and 8 were published in 2005 G.C while biology of grade 8 published in 2006 G.C. Since then, the content was not revised.

In terms of content area, contents of most of the print instructional materials are not in accordance with the current national curriculum framework and syllabus. As discussed under item 3, several content areas were identified through content analysis. For instance, chapter 8 which deals with Oxygen, Hydrogen and Redox Reaction is incorporated into grade 7 chemistry while it should be content area to be learnt in grade 9 as to national curriculum framework and syllabus. Human diseases other than sexually transmitted are incorporated into grade 8 content while it should be for grade 10 as the national syllabus suggests. Also there are contents excluded from print instructional materials. For example, the topic “living in Africa” which deals with the people, location and size of Africa, ancient civilization in Africa and etc... is omitted from grade 7 geography while this is included in regular education of the same level. Moreover, incorporation of atomic model into grade 7 chemistry from grade 9 and levels of organization in multi-cellular organisms into grade 7 from grade 8 were also observed during content analysis.

In terms of language, it was observed during content analysis that geography for grade 7 is written in Amharic while the same subject for regular students of the same grade level is written and taught in English. But, students of both programs (distance learners and regular students) are expected to sit for the same regional exam of grade 8 after a year being taught different contents in different languages.

In general, based on the results obtained from interview conducted with tutors and officials from MoND's distance education program and content analysis, it is possible to conclude that the contents of print instructional materials under study is not up-to-date.

Interview conducted with tutors has also confirmed the above result obtained through questionnaire. From the tutors' point of view, many illustrations are used in different print instructional materials under study and this is appreciable in a relative term.

Content analysis conducted on some of the print instructional materials under study also is in support of the above finding obtained through questionnaire and interview. Results obtained from content analysis indicated that there are varieties of illustrations in print instructional materials under study. For instance, print instructional materials for Amharic and Chemistry of grade 7 and biology of grade 8 can be mentioned.

Therefore, from the above data obtained through questionnaire, interview and content analysis, it is possible to draw a conclusion that there is an inclusion of illustrations into the print instructional materials under study.

With this regard, the data obtained through content analysis also confirmed that illustrations in the print instructional materials under study are not clear. All illustrations in the print instructional materials are black and white while color is very essential. For example, periodic table in Chemistry module is just black and white while different colors are critical to easily identify chemical elements. Another example with this regard is that illustration to show as how water points are represented on the map is drawn with black color in Amharic module of grade 7 (pp 16 & 17) when blue color is critically needed to show water points.

Overall, from the results obtained through questionnaire and content analysis, it is possible to draw a conclusion that the illustrations in the print instructional materials are not clear and vivid.

On the other hand, interview conducted with officials from Defense General Education Department regarding whether distance education program under the Ministry has its

own curriculum and syllabus reveals that this program (grade 7 and 8 education) was running as a regular program 14 years ago. Later on, due to several factors like the nature of military deployment, difficulty of establishing schools where military units are settled, mobility of units and problem of obtaining teachers who could be volunteer to work in places where units are located, it was decided to run the program through distance learning approach. Therefore, the curriculum and syllabus were adapted from the regular education program existed at a time. The explanation of one of the officials of the Defense General Education Department supported the above idea. He explained that:

The institution (Defense) had a great concern about capacity building for its human resource. Education and training are the main means of achieving this concern. On the other hand, it was difficult to provide education for military members through the regular program due to the special missions that the military carry. Thus, establishing distance education program became the only option. Curriculum design and preparing syllabus was thought to be time consuming. Therefore, just to run the program, it became urgent to slight change the instructional materials prepared for the regular program in to a distance context (03, 19/08.2008).

This implies that distance education program for grade 7 and 8 has not had its own curriculum and syllabus and has not undergone curriculum development process including needs assessment rather just adapting from the regular program.

4.2.4 The language in the print instructional materials Vs the proficiency and maturity level of the learners

Here under, several points related to language used in the print instructional materials under study were discussed and analyzed. Accordingly, the summary of items related to the language used in the print instructional materials was presented as follows in table 6.

Table 6: Language Used in the Print instructional materials

N o	Item	5		4		3		2		1	
		N o	%	N o	%	N o	%	N o	%	N o	%
1	The language used is simple	35	44.9	31	39.7	1	1.3	6	7.7	5	6.4
2	The language used is clear	25	32.1	41	52.6	5	6.4	6	7.7	1	1.3
3	The language used is unambiguous	17	21.8	44	56.4	6	7.7	8	10.3	3	3.8
4	The language used is comprehensible	28	35.9	35	44.9	3	3.8	9	11.5	3	3.8
5	The vocabulary used is appropriate	29	37.2	34	43.6	2	2.6	11	14.1	2	2.6
6	The structure of the sentences is simple	33	42.3	32	41	4	5.1	6	7.7	3	3.8
7	The sentences are short	24	30.8	43	55.1	3	3.8	6	7.7	2	2.6
8	The sentences are clear	29	37.2	36	46.2	5	6.4	7	9	1	1.3
9	There are too many negatives in the sentences	25	32.1	40	51.3	5	6.4	5	6.4	3	3.8
10	There are too many passive voice sentences	23	29.5	40	51.3	6	7.7	6	7.7	3	3.8

Key: 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

Table 6 provides a summary of issues related to language usage in the print instructional materials under study. Accordingly, the data shows that except the last two items (item 9 and 10), for item 1 up to item 8, most of the respondents reported that language used in the print instructional materials under study is good. That is 66 (84.6%), 66 (84.6%), 61 (78.2%), and 63 (80.8%) of the total respondents confirmed that the language used in the print instructional materials is simple, clear, unambiguous and comprehensible respectively for item 1 up to 4.

Regarding items 5, 6, 7, and 8 the data shows that the response of the participants was almost similar and closer. That is, 63 (80.8%), 65 (83.3%), 67 (85.9%) and 83.4% of the

total participants reported that vocabulary used is appropriate, the structure of sentences is simple, the sentences are short and clear respectively.

In contrast to the above (regarding item 1-8), insignificant percentage of the total respondents disagree that the language used in the print instructional materials is good. This shows that the language in the print instructional materials is used properly, which shows the existence of a consideration of proficiency and mental maturity of the learners.

Results obtained from interview conducted with tutors also support the above result obtained through questionnaire. Most of the tutors agreed that there is an effort to make all the print instructional materials friendly. All materials are written (prepared) as if a teacher is communicating with students. Simple vocabularies are used in writing (preparing) the print instructional materials as to their point of view. In connection with this, Gauchuni and Matira (1989) emphasized that vocabulary used in the self-instructional materials should be appropriate keeping in mind the mental maturity of the learner and the structure of sentences should be appropriate, that is, simple, short and clear.

The above results obtained through questionnaire responded by the learners and interview conducted with tutors were also supported by content analysis. The researcher's observation while content analysis indicated that print instructional materials under study are prepared with common vocabularies. There is no significant number of new (unusual) vocabularies observed in the print instructional materials except professional or scientific names or words more specifically found in Chemistry and Biology subjects' print instructional materials.

Regarding item 9 and 10 in table 6, the respondents were asked to respond whether or not there are too many usage of negatives in the sentences and passive voice sentences in the print instructional materials. In view of this, the data indicates that 65(83.4%) (32.1% saying strongly agree and 51.3% saying agree) and 63 (80.8%) (29.5% saying strongly agree and 51.3% saying agree) of the total participants reported that there are too many negatives in the sentences and passive voice sentences in the print instructional materials

under study. Only 8 (10.2%) (3.8% saying strongly disagree and 6.4% saying disagree) and 9 (11.5%) (3.8% saying strongly disagree and 7.7% saying disagree) of the total participants informed the none-existence of too many negatives in the sentences and passive voice sentences in the print instructional materials under study.

However, result obtained through content analysis shows that there are many passive voice sentences more specifically in Biology subject print instructional material and to some extent in Chemistry subject print instructional material. With this regard, the use of active voice, use of 'we' and 'you' and the use of short sentences are helpful in maintaining the friendly tone whereas unnecessarily long words and convoluted sentences are misplaced (Hartely, 1994). There should not be too many clauses in a sentence, not too more negative, passive and impersonal words (Gauchuni and Matira 1989). This implies that distance education print instructional materials should be written in active voice. However, the finding obtained didn't coincide with the theory and this indicates that there were gaps in this regard. On the other hand, the result obtained through content analysis revealed that there are no too many negative sentences observed in the print instructional materials. Therefore, results obtained through content analysis is partially coincided with results obtained through questionnaire responded by the learners.

Regarding item 9 of table 6, there is a contradiction between result obtained through questionnaire and content analysis. This contradiction might happen due to the reasons discussed under table 5 item 3.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Major Findings

The primary objective of this study was to assess the relevance of distance education print instructional materials of upper cycle primary level distance education program under the Ministry of National Defense to the needs of distance learners. An attempt was made to identify major gaps to inform the concerned body in order to improve the relevance of print instructional materials to the needs of distance learners.

Accordingly, depending on the results of the analysis made, the following major findings were obtained:

1. Personal information of the respondents has revealed that, there was a wide proportion variation between males and females of the sample population. There were only 4 female distance learners of the total sample population of 78. With regard to their age, the majority of the learners were within the range of young age. Concerning their service year, more than half of the total respondents had a total service year of ≤ 5 years. This reveals that most of the distance learners of grade 7 and 8 had a short service year in the military;
2. The design of print instructional materials related to the paper used inside the materials was durable. However, the design of cover page was unattractive and not durable. In connection to this, the cover page couldn't resist liquid matters and can easily be damaged. The binding of the print instructional materials was also not durable and flexible. With regard to designing process, the analysis of this study indicated that there were no stakeholders' involvements (participation) in the process of designing the materials;
3. Regarding the structure of the contents of the print instructional materials, overall, the contents of the print instructional materials were structured properly. However, there were inconsistencies in providing a list or outline of the contents.

In addition to this, this study found that, there was no page number where to find every unit or any title in the table of content;

4. Concerning the relevance and organization of the contents of print instructional materials, it was not in accordance with the mental maturity of the learners. In line with this, the study revealed that the contents of distance education print instructional materials for grade 7 and 8 were not in accordance with the national curriculum framework and syllabus. As the study indicated, there were contents omitted from the print instructional materials and on the other hand, there were contents incorporated into the print instructional materials not in accordance with national curriculum framework and syllabus. Regarding relevance of print instructional materials in terms of time, the study found that, the print instructional materials were not up-to-date. The print instructional materials have remained unrevised since their publication (2002 G.C). The study also found that, print instructional material for Geography subject of grade 7 was written (prepared) in Amharic language when it should be in English language as the learners are expected to sit for the same regional exam of grade 8 with Addis Ababa City Administration students;
5. With regard to illustrations, the study revealed that there was incorporation of illustrations in a variety of forms. However, the illustrations incorporated were not clear and vivid. In connection with this, the study has found that different colors were not used even when they were needed. For example, to show water points, blue color is critically recommended, but the study found that water points were represented in black colors. Another example of this finding was periodic table of elements. In this regard, this study found that the periodic table of elements was drawn just in black and white color when different colors were needed to easily distinguish element group;
6. Finally, this study revealed that, the language used in the print instructional materials was in accordance with the proficiency and mental maturity of the learners in most cases. But, there were too many passive voice sentences in the print instructional materials. For instance, print instructional material for Biology subject of grade 8 can be pointed out.

5.2 Conclusions

Based on the findings, the following conclusions were made:

From the findings of this study, it was found that the design of cover page of the print instructional materials in terms of attractiveness and durability found to be below average. However, the paper used inside the print instructional materials found to be relatively at its standard (better). The binding of print instructional materials was also found below the average in terms of its durability and flexibility. With regard to the designing process, the involvement of stakeholders in the process found to be none. This in return affects the overall learning activities of the program.

List or outline of the contents has many benefits for the learners and tutors as well. However, the study found that there was inconsistency of providing outline of the content among print instructional materials. In addition, there was no page number that leads the learners and/or the tutors (teachers) where to find the desired contents. From this finding, it can be possible to draw a conclusion that there might be misperception in understanding the role of list or outline of the contents in the teaching learning process, more specifically, the benefit it has for distance learners.

In trying to assess the relevance and organization of the contents of print instructional materials, the study has reported that, the contents were not in accordance with the grade level of the learners. This is because firstly, several contents were incorporated and/or omitted from the materials regardless of the grade level of the learners. Secondly, it was found that the contents of the print instructional materials under study were not organized in accordance with the national curriculum framework and syllabus. Thirdly, it was found that most of the print instructional materials under study were not up-to-date and remained unrevised since their publication in 2002 G.C. Fourthly, the study has found that illustrations in the print instructional materials were not in the manner they could be. Illustrations throughout the print instructional materials were in black and white colors even when other color necessarily to be used. Finally, even though the overall usage of vocabulary was good, the study revealed that there were many passive voice sentences in

the contents presented. Based on these findings it was concluded that the print instructional materials under the study lack relevance in current situation.

5.3 Recommendations

Based on the findings and conclusions reached on, the following recommendations have been forwarded:

Cover page of any print instructional material plays a significant role in inviting the readers. In addition, it plays a great role in maintaining the life span of the whole materials. Therefore, it is advisable to pay due attention to cover page and binding when designing the print instructional materials. Accordingly, the cover page of distance education print instructional materials of MoND under the study is preferable if:

Designed with different illustrations on them that manifests the context of MoND and thereby helps to invite the learners to read more;

Strong and water proof as the print instructional materials are expected to be with the troops when and wherever they undergo any challenges;

The binding of the print instructional materials should be flexible and easy to turn on to the pages;

Distance learners need to know what content areas will be covered in a given course. This helps them to be aware of the contents to be studied in advance and indeed, to plan their time. In addition, it helps them to look for additional related reading materials if needed. Therefore, incorporation of list or outline of the contents is suggested. To do so:

Course writers should be aware of the distance education print instructional materials unique characteristics. In view of that, short term trainings and workshops should be organized frequently by inviting experts and educators from different educational institutions, so that course writers will be able to gain up-to-date knowledge in preparing distance education print instructional materials. Doing this, there will also be a possibility to share experiences with one another and other parties invited to the workshops;

It is recommended Working in collaboration with stakeholders and other institutions which have better experience in this regard and gathering information frequently from the immediate stakeholders (learners and coordinators at different levels) should also be a mechanism to look into the gaps, so that timely revision of the materials taking into account curriculum framework, layout, language and ease of use could be considered;

As shown in the finding of the study, the print instructional materials under the study currently lack relevance for a number of reasons. Therefore, it was recommended that, the print instructional materials should be redesigned in accordance with the national curriculum framework and syllabus. To do so, the Defense General Education Department should deeply evaluate all the existing print instructional materials against the national curriculum framework and syllabus and identify the gaps they have and finally plan should be developed as how to redesign in accordance with national curriculum framework and syllabus;

Whenever preparing print instructional materials, there should be in mind that variety of illustrations incorporated in the print instructional materials. However, their existence in the print instructional materials alone is not enough. Therefore, they should be in different colors so as to make them attractive and illustrative, which will be possible for the learners to easily identify what they tend to represent. For instance; periodic table of elements in Chemistry course and water points and vegetations in Geography course could be cited as examples

Language usage in the distance education print instructional materials plays a great-deal of roles in fulfilling lack of human sense. However, as shown in the finding of the study, there were many passive voice sentences in the contents of the print instructional materials; for example, Biology subject for grade 8. Based on this, it was recommended that, the contents should be written in active voice sentences if there is no enforcing reason to use passive voice. This helps to get the learners understand the contents easily. Above all, it should be in active voice in a plain and straight forward language as formal writing requires it. To do so, as indicated above, training for subject (course) writers is preferable.

The above all points were recommended to the Defense General Education Department as this department is responsible in running the overall activities related to teaching-learning process through distance.

All the above can be practical through considerable financial means. Therefore, it is recommended that Ministry of National Defense allocates meaningful financial means.

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Appendix 1: English Version Questionnaire

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

DEPARTEMENT OF CURRICULUM AND INSTRUCTION

Section One: Introduction

This Questionnaire is prepared to collect relevant data for the study entitled “**An Assessment of the Relevance of Distance Education Print Materials to the Needs of Distance Learners: The Case of Ministry of National Defense**”. It is for the partial fulfillment of MA in **Adult Education and Lifelong Learning**.

In order to make the research outcomes complete, reliable and fruitful, your genuine and accurate response to each item has a great contribution. Therefore, you are kindly requested to respond to each item at most honestly and accurately. All the responses you provide will strictly be confidential and shall only be used for the purpose of academics.

Dear respondents! Please note that:

You do not need to write your name on any page of the questionnaire

You should not consult other respondents to fill the questionnaire

You need to respond to all of the items

Put a “X” mark inside the box provided

Thank you in advance for your cooperation!

Dear respondents, in case of any difficulties during responding to the questionnaire, please call on the number +251-920102391.

Section Two: Personal Information

Dear respondents, please put the mark “x” inside the box that describes you.

Sex	
Male	
Female	

Educational status	
7 th Grade	
8 th Grade	

Age Category			
18-22		38-42	
23-27		43-47	
28-32		48-52	
33-37		Above 52	

Work Experience			
=<5 years		16-20 years	
6-10 years		21-25 years	
11-15 years		26 and above	

Section Three: Questionnaire

Instructions

Please give your answer by putting the mark “x” in the box that describes your feeling most.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
SD	D	UD	A	SA

If you want to give further information, you can use the blank space provided under each item.

1. Design of the print materials

1.1.The design of the cover page is attractive	SD	D	UD	A	SA

Further elaboration of your answer-----

1.2.The cover page is durable	SD	D	UD	A	SA

Further elaboration of your answer-----

1.3.The paper used in the print material is durable	SD	D	UD	A	SA

Further elaboration of your answer-----

1.4.The binding of print materials is durable	SD	D	UD	A	SA

Further elaboration of your answer-----

1.5.The type size of unit headings is appropriate	SD	D	UD	A	SD

Further elaboration of your answer-----

1.6.The type size of sub-units is appropriate	SD	D	UD	A	SA

Further elaboration of your answer-----

1.7.The type size of sections is appropriate	SD	D	UD	A	SA

Further elaboration of your answer-----

1.8.The type size of sub-sections is appropriate	SD	D	UD	A	SA

Further elaboration of your answer-----

1.9.The size of the main bodies is appropriate	SD	D	UD	A	SA

Further elaboration of your answer-----

2. Structure of print instructional materials

2.1.A list or outline of content is provided in the beginning of each unit	SD	D	UD	A	SA

Further elaboration of your answer-----

2.2.The content is structured into small units.	SD	D	UD	A	SA

Further elaboration of your answer-----

2.3.Units are structured into sub-units	SD	D	UD	A	SA

Further elaboration of your answer-----

2.4.Sub-units are structured into sections	SD	D	UD	A	SA

Further elaboration of your answer-----

2.5.Sections are divided into sub-sections	SD	D	UD	A	SA

Further elaboration of your answer-----

2.6.Each unit, sections and sub-sections have a title	SD	D	UD	A	SA

Further elaboration of your answer-----

2.7. Each unit has an objective	SD	D	UD	A	SA

Further elaboration of your answer -----

2.8. Each unit has an introduction.	SD	D	UD	A	SA

Further elaboration of your answer -----

2.9. Each unit has self-check questions.	SD	D	UD	A	SA

Further elaboration of your answer -----

2.10. Each unit has model answers.	SD	D	UD	A	SA

Further elaboration of your answer -----

2.11. Each unit has a summary.	SD	D	UD	A	SA

Further elaboration of your answer -----

2.12. Each unit is self-contained.	SD	D	UD	A	SA

Further elaboration of your answer-----

2.13. Each unit is self-explanatory	SD	D	UD	A	SA

Further elaboration of your answer-----

2.14. Each unit is self-directed	SD	D	UD	A	SA

Further elaboration of your answer-----

2.15. The sequence of the units is logical	SD	D	UD	A	SA

Further elaboration of your answer-----

2.16. In each unit, there is a link between the sections.	SD	D	UD	A	SA

Further elaboration of your answer-----

2.17. There is a link between paragraphs	SD	D	UD	A	SA

Further elaboration of your answer-----

3. Relevance and organization of print instructional materials

3.1.The content is in accordance with the mental maturity of the learners	SD	D	UD	A	SA

Further elaboration of your answer -----

3.2.The contents are free from redundancy.	SD	D	UD	A	SA

Further elaboration of your answer -----

3.3.The content is up-to-date	SD	D	UD	A	SA

Further elaboration of your answer -----

3.4.Illustrations in variety of forms are included	SD	D	UD	A	SA

Further elaboration of your answer -----

3.5.Illustrations are clear	SD	D	UD	A	SA

Further elaboration of your answer -----

3.6. Illustrations are vivid	SD	D	UD	A	SA

Further elaboration of your answer -----

4. Language related questions

4.1. The language used is simple.	SD	D	UD	A	SA

Further elaboration of your answer -----

4.2. The language used is clear.	SD	D	UD	A	SA

Further elaboration of your answer -----

4.3. The language used is unambiguous.	SD	D	UD	A	SA

Further elaboration of your answer -----

4.4.The language used is comprehensible	SD	D	UD	A	SA

Further elaboration of your answer -----

4.5.The vocabulary used is appropriate keeping in view of the mental maturity of the learners	SD	D	UD	A	SA

Further elaboration of your answer -----

4.6.The structure of the sentences is simple.	SD	D	UD	A	SA

Further elaboration of your answer -----

4.7.The sentences are short.	SD	D	UD	A	SA

Further elaboration of your answer -----

4.8.The sentences are clear.	SD	D	UD	A	SA

Further elaboration of your answer -----

4.9.There are too many negatives in the sentences.	SD	D	UD	A	SA

Further elaboration of your answer -----

4.10. There are too many passive voice sentences.	SD	D	UD	A	SA

Further elaboration of your answer -----

Appendix 2: Amharic Version Questionnaire

አዲስ አበባ ዩኒቨርሲቲ

በትምህርት እና የባሕርይ ጥናቶች ኮሌጅ

የሥርዓተ ትምህርት እና ማስተማር ዲፓርትመንት

ክፍል አንድ፡ መግቢያ

ይህ መጠይቅ "የርቀት ትምህርት የህትመት የመማሪያ ማቴሪያሎች ከርቀት ትምህርት ተማሪዎች ፍላጎት አንጻር ያላቸው ተገቢነት በሚል ርዕስ በሀገር መከላከያ የርቀት ትምህርት የህትመት የመማሪያ ማቴሪያሎች ላይ ጥናት ለማድረግ ይረዳ ዘንድ ተገቢ ዳታ ለመሰብሰብ የተዘጋጀ ነው። ጥናቱ የሚደረገው በጎልማሶች እና የዕድሜ ልክ ትምህርት ለኤምኤ (MA) ዲግሪ ከፊል ማሟያነት ነው።

የጥናቱ ውጤት የተሟላ እና ፍሬያማ እንዲሆን ዘንድ እናንተ ለእያንዳንዱ መጠይቅ የምትሰጡት እወነተኛ እና ትክክለኛ ምላሽ ትልቅ አስተዋጽኦ አለው። ስለዚህ በቅንነትና በትክክል ለእያንዳንዱ መጠይቅ ምላሻችሁን እንድትሰጡ በአክብሮት ትጠየቃለችሁ። የእያንዳንዱ ሰው መልስ እና ሀሳብ ምስጢራዊነቱ የተጠበቀ እና ለትምህርታዊ ጉዳይ ብቻ የሚያገለግል ነው።

በየትኛውም ገፅ ላይ ሥም መጻፍ አያስፈልግም

መጠይቆቹን ለመሙላት ለሎች ሰዎችን ማማከር አያስፈልግም

ሁሉንም መጠይቆች መመለስ በጣም አስፈላጊ ነው

በተሰጠው ሳፕን ውስጥ የ "X" ምልክት ያድርጉ

ለትብብርዎ በቅድሚያ እናመሰግናለን!

በመጠይቁ ምላሽ ወቅት ማንኛውንም ዓይነት ችግር ቢያጋጥምዎ በ+ 251-920102391 ቁጥር ላይ ይደውሉ

ክፍል ሁለት፡ የግል መረጃ

እርስዎን የሚገልፅ ሳጥን ውስጥ የ "x" ምልክት ያድርጉ

ጾታ		የትምህርት ሁኔታ	
ወንድ		7 ኛ ክፍል	
ሴት		8 ኛ ክፍል	

የዕድሜ ምድብ			
18-22		38-42	
23-27		43-47	
28-32		48-52	
33-37		ከ52 በላይ	

የሰራ ልምድ			
> 5 ዓመታት		16-20 ዓመት	
6-10 ዓመታት		21-25 ዓመት	
11-15 ዓመት		26 እና ከዚያ በላይ	

ክፍል ሦስት፡ መጠይቅ

መመሪያ፡ የአርሰዎን በሚገልፅ ሳጥን ውስጥ የ "x" ምልክት በማድረግ መልስ ይስጡ

በጣም አልሰማም	አልሰማምም	መውሰን አልችልም	እሰማለሁ	በጣም እሰማለሁ
በአ	አ	አል	እ	በእ

ጥናቱን ለማገዝ ይቻል ዘንድ ተጨማሪ መረጃ ለመስጠት እያንዳንዱ መጠይቅ ስር ያለውን ባዶ ቦታ ይጠቀሙ።

1. የሞጁሉን ንድፍ የሚመለከቱ ጥያቄዎች

1.1. የሽፋን ገጽ ንድፍ ማራኪ (ሳቢ) ነዉ	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

1.2. የሽፋን ገጽ ጠንካራ ነዉ ::	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

1.3 የሞጁሉ የውስጥ ገፅ ወረቀቶች ጠንካራ ናቸዉ ::	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

1.4. መጠረጃዎ ጠንካራና ለረጅም ጊዜ የሚያገለግል ነዉ ::	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

1.5. የእያንዳንዱ ክፍል ርዕስ በተገቢው የፊደል መጠን ተፅዕኖ::	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

1.6. የንዑስ ክፍሎች ርዕስ በተገቢው የፊደል መጠን ተፅዕኖ::	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

1.7. የሰክሽኖች (sections) ርዕስ በተገቢው የፊደል መጠን ተፅዕኖ::	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

1.8. የንዑስ-ሰክሺኖች (sub-sections) ርዕስ በተገቢው የፊደል መጠን ተፅዕኖ::	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

1.9. የሞጁሉ ዋናው ይዘት በተስማሚ (ተገቢ) የፊደል መጠን ተፅዕኖ	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2. የሞጁሉ አወቃቀር

2.1. በእያንዳንዱ ክፍል መጀመሪያ ላይ የይዘት ዝርዝር ይቀርባል።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.2. አጠቃላይ የሞጁሉ ይዘት በትናንሽ ክፍሎች የተዋቀረ ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.3. እያንዳንዱ ክፍል በንዑስ ክፍሎች የተከፋፈለ ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.4. ንዑስ ክፍሎች በሰከሺኖች ተከፋፍለዋል።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.5. ሰከሺኖች በንዑስ-ሰከሺኖች ተከፋፍለዋል።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.6. እያንዳንዱ ክፍል እና ንዑስ-ክፍል ርዕስ አለው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.7. እያንዳንዱ ክፍል አላማ አለው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.8. እያንዳንዱ ክፍል መግቢያ አለው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.9. እያንዳንዱ ክፍል ራስን ለመመዘን የሚያስችሉ ጥያቄዎች አሉት።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.10. እያንዳንዱ ክፍል የማነጻጸሪያ መልስ አለው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.11. እያንዳንዱ ክፍል ማጠቃለያ አለው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.12. እያንዳንዱ ክፍል ራሱን ችሎ ተዋቅሯል።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.13. እያንዳንዱ ክፍል ራሱን ችሎ ያለተጨማሪ ማብራሪያ የቆመ ነዉ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.14. እያንዳንዱ ክፍል ራሱን ችሎ ለመማር የሚያስችል ነዉ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.15. የሞጁሉ የይዘት አደረጃጀት ከቀላል ወደ ከባድ ነዉ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.16. እያንዳንዱ ክፍል በሀሳብ (ይዘት) እርስ በርስ የተያያዘ (የተሳሰረ) ነዉ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

2.17. በአንቀጾች መካከል ትስስር አለ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

3. አግባብነት እና የሞጁል አደረጃጀት

3.1. ይዘቱ የተማሪዎችን የአእምሮ ብስለት መሠረት ያደረገ ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

3.2. የሞጁሉ ይዘት ከድግግሞሽ የፀዳ ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

3.3. የሞጁሉ ይዘት ወቅታዊ ነው ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

3.4. በሞጁሉ ውስጥ ሥዕላዊ መግለጫ ተካትተዋል።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

3.5. ሥዕላዊ መግለጫቹ ለመረዳት ግልጽ ናቸው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

3.6. ሥዕላዊ መግለጫቹ በጉልህ ይታያሉ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4. ከቋንቋ ጋር የተያያዙ ጥያቄዎች

4.1. ይዘቱ የተፃፈበት ቋንቋ ቀላል ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.2. ይዘቱ የተፃፈበት ቋንቋ ግልፅ ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.3. ይዘቱ የተፃፈበት ቋንቋ አሻሚ አይደለም ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.4. ይዘቱ የተፃፈበት ቋንቋ በቀላሉ መረዳት የሚያስችል ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.5. ይዘቱ የተፃፈበት የቃላት አጠቃቀም የተማሪውን ብስለት ያገናዘበ ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.6. የዓረፍተ-ነገሮች አወቃቀር ቀላል ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.7 ዓረፍተ-ነገሮቹ አጫጭር ናቸው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.8. ዓረፍተ-ነገሮቹ ግልጽ ነው።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.9. በይዘቱ ውስጥ በጣም ብዙ አሉታዊ ዓረፍተ-ነገሮች አሉ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

4.10. በይዘቱ ውስጥ ተደራጊን የሚያመለክቱ(Passive voice) በጣም ብዙ ዓረፍተ ነገሮች አሉ።	በአ	አ	መአ	እ	በእ

ለመልስዎ ተጨማሪ ማብራሪያ-----

