UNIT 7 DEVELOPMENT OF SELF-LEARNING PRINT MATERIALS

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7.0 INTRODUCTION

We are aware that the success and the effectiveness of ODE systems largely depend on the quality of learning materials in print. Writing for distance learners is a more challenging task than writing a book or writing for a journal. The main objective of SLPMs is to stimulate, facilitate and sustain independent learning by the student. In other words, SLPMs create an environment whereby the student gets motivated and interested to learn independently. SLPMs perform the functions of an effective, efficient and inspiring teacher in the distance learning situation.

In Unit-5, you studied about different aspects of designing SLMs in general and the principles, key features and process of designing SLPMs in particular. And, in Unit-6, you have got clear understanding of the role, place and significance of different media and technology in ODE. In the present Unit, we shall deal with the concept, components and practical aspects involved in development of self-instructional print materials (SLPMs).
7.1 OBJECTIVES

After thorough reading of this unit, you should be able to:

- explain the concept and need of self-instructional print materials;
- describe the components of SLPMs;
- identify the pre-requisites for course writers / designers;
- explain the process of writing a self-learning unit;
- analyse the tasks, functions and concerns of distance education editors involved in different types of editing; and
- appreciate the factors that influence the quality of editing, and thus, the quality of distance learning materials vis-a-vis the learning needs of distance learners.

7.2 SLPMs: WHAT AND WHY?

The primary goal of distance education materials is to help the student learn independently at his own pace and convenience. In other words, the SLPMs should promote the concept of self-learning. The SLPMs should therefore be based on the theory and principles of self-learning, which we have already discussed in Unit-5. Before we go into the practical aspects of development of SLPMs, let us discuss, in brief, the concept and need of SLPMs in distance education below.

7.2.1 Concept

We know that, in the distance education system the learners mostly study at a distance; from their home or the workplace or any other place of their convenience. They do not get opportunity to interact with either the open learning institution or the teacher or the fellow learners frequently. Their learning material should, therefore, be designed in such a way that the functions of an effective teacher are built into it. In other words, the distance teacher in the learning material performs the functions of a classroom teacher such as directing the students, motivating them, explaining the concepts, asking questions, assessing them, etc., which we have discussed in Unit-5 (See section 5.6). These functions facilitate independent learning popularly known as autonomous learning or self-learning among the distance learners without much external support.

In Unit-5 we studied that SLMs/SLPMs are based on the various theories of learning and communication have had great impact on the design and preparation of SLMs/SLPMs. The broad principles of programmed instructions such as division of content into small (but manageable) steps, logical and sequential ordering, feedback on performance, try-out (or developmental testing), etc., act as the guiding factors in designing and development of SLPMs.

SLPMs therefore are different from a textbook or a journal. Unlike an article or a book, the SLPMs do not aim at scholarly presentation. SLPMs are developed in self-instructional or self-learning format to promote effective self-learning. Only effective SLPMs can arouse and sustain interest in the learners for self-learning. Thus, SLPMs are specially designed to provide well planned instruction
to the identified target groups with the purpose of promoting self-learning and thus enable them acquire intended knowledge, attitudes and skills.

### 7.2.2 Need

Since the distance learner is away from the distance education institution, neither the teacher nor the peer group is around to help him in his learning from the materials. Given the situation, the students look for such learning materials which are best suited to their needs and requirements. The load and style of presentation of content should also fit into the learning habits, prior knowledge, language competency, etc., of the learners hailing from diverse backgrounds.

In a system where neither teacher is present to answer a student’s query or explain/clarify a point or correct the student, nor he can seek help or assistance from his fellow learner, it is essential to provide materials that fulfill the above needs and requirements of learners with a view to guiding the student at every step of his learning. Therefore, SLPMs are to be designed and developed along sound principles of pedagogy and andragogy. Therefore, in order to address the problems associated with distance of the institution, the teacher and the peer group from the learner, the learning materials should be such that they are self-contained, self-sufficient, self-instructional/learning, self-explanatory, self-directed and self-assessing/evaluating. They expect such learning materials that provide for their control over their learning and enable them to learn according to his own pace of learning. Only then these materials facilitate their learning, and lessen their dependency on external support.

The learning material should thus be able to create a learning environment in itself for the students. These materials should give them the feeling as if some invisible teacher is there catering to their study and learning needs. They should feel that they are being motivated, taught, directed and assisted by someone. In so doing the personalized style of presentation might cater well to the needs of individual learners. Besides the knowledge of these principles (discussed in Unit-5) an understanding of the components of SLPMs and the practicalities involved in development of these materials form important pre-requisites on the part of not only the course designers but also the course writers involved in such tasks. Let us discuss these in the sections that follow.

### Check Your Progress

**Notes:**

a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

1) What do you understand by SLPMs? Justify the need for SLPMs in distance education.

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7.3 COMPONENTS OF SLPMs

SLPMs consist of two broad components that serve specific pedagogic functions. These components adhere to the principles of effective learning. The components are:

- Active learning components
- Access devices

Let us discuss both the components in detail.

7.3.1 Active Learning Components

One of the basic principles of learning is the active participation of the learners in the learning process. The learner cannot learn just by being a passive recipient of information. He/she has to actively select appropriate content and involve himself/herself with the content. S/he learns by performing various pedagogic activities such as perceiving, comprehending and conceptualizing learning tasks / problems. We know from our experience and also from the theories of learning that eliciting a response is an essential component of teaching-learning activity. The instructional activities open up the genuine interaction between the student and the text. The activities stimulate the learner to learn. In other words, the SLPMs should make the student active and responsive. This is possible only when SLPMs are based on the principles of effective learning. The sequencing, presentation and language used in the materials should be appropriate to the level of the existing knowledge and the ability of the learners.

Learning activities are of different forms and are deliberately built into the teaching-learning materials. Since students remain away from both the distance teacher and the distance education institution during most of their study time, they will be learning in a passive manner mainly from the learning materials delivered to them. The distance teacher must therefore aim at breaking this passive learning by them by incorporating various pedagogic activities and through appropriate presentation of the content in print and non-print media. The activities particularly in SLPMs must help in engaging the distance learner in three broad types of learning activities. They are:

i) **Thinking:** The SLPMs are designed to stimulate thinking in students, among other things. The in-text activities are to be so designed that they motivate the students to be attentive and interact with the content being taught to them, i.e. being learnt by them. Objective type questions motivate them to think and find alternative answers to the questions asked. Thinking helps them retain knowledge, reinforce further thinking and solve problems.

ii) **Writing:** SLPMs provide opportunities to students to reflect upon before they write and consolidate what they have learnt. Writing activities sharpen their communication skills, which is essential for a successful social life. Also, self-learning materials make them active and attentive. Activities related to writing involve thinking on the part of the students. Such activities have the following advantages.

- strengthen the memory
• extend what has just been learnt to other items in the same area
• apply what has been learnt to a new situation
• test comprehension
• provide periodic check on learning of the distance learners.

iii) Doing: There is no second opinion on the fact that one learns best by doing. Practice strengthens learning. Some courses involving skill development require special practical activities for students or do something manually. These activities can be of different types, such as conducting experiments, collecting information/data, reading maps, drawing figures, etc. Practical activities are deliberately built into the SLPMs to increase active learning in students.

7.3.2 Access Devices

The access devices are essential components of effective SLPMs. As the term indicates, these devices make the learning materials more accessible to the students. The access devices are those devices which help the course writer go as close to the students as possibly he can and help them find their ways into the learning materials, i.e. allow them to go as close to the content as possible. The access devices provide an outline of the whole course or unit as the case may be. By using a variety of access devices in different formats, we can make the teaching unit interesting.

There are three main functions of the access devices. These devices:

• enable students to find what they need to study in the material, i.e. the easy means and ways to reach the content,
• make the content more intimate to the students and help them grasp what is presented in the learning materials, and
• perform the functions of a live classroom teacher, i.e. build a teacher into the learning materials.

Some of the access devices used in SLPMs are as follows:

i) Title
ii) Structure of the unit
iii) Objectives
iv) Illustrations
v) Summary
vi) Glossary

Let us discuss, in brief, about these access devices below.

i) Title

An appropriate title of the learning unit tells students what the unit is all about. The title, therefore, should be more explicit and communicative. The title of the unit/section/sub-section should be simple to learn and recall whenever required. The title must be stated clearly and specifically.
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ii) **Structure of the Unit**

The unit structure is based on the concept mapping. Sections / themes and sub-sections / sub-themes are presented in the most logical sequence. Each section and sub-section draws the students’ attention to the learning points. They can have access to the learning points they want to study. They can straight away skip or skim any learning point presented in the structure, if they wish so.

iii) **Objectives**

In each unit of SLPMs, objectives are stated in behavioural terms, i.e. in terms of learning outcomes. The objectives help the course writers know the scope of the content to be included and discussed in unit. They also help the students know the standard to be achieved after going through the unit, course or programme, i.e. the objectives stated in terms of learning outcomes will tell the students of what we expected from them once they completed doing the unit.

iv) **Illustrations**

The illustrations, diagrams, charts, figures, drawings, tables, etc. help clarify the content being learnt. These devices make the learning materials more attractive and effective for the students.

v) **Summary**

The summary of the unit can help the students recapitulate and retain what is discussed in the unit. The summary can be presented in different formats to make instructional materials more interesting and attractive.

vi) **Glossary**

Some units are accompanied with the glossary of crucial key, new and technical expressions used in the unit. Glossaries also help the students understand the central point of discussion.

Besides the above mentioned access devices, it is the resourcefulness of the course writers to make learning activities more accessible to the students and help them promote knowledge, skills or attitudes thus gained through working on the instructional materials. One of the ways is by establishing appropriate horizontal and vertical linkages, at relevant places, with the contents in other sections of the same unit or with those in other units of the same Block or other Blocks.

### Check Your Progress

**Notes:**

a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

2) List out different access devices that you find in SLPMs.

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7.4 PRE-REQUISITES FOR COURSE WRITERS / INSTRUCTIONAL DESIGNERS

Keeping in view the key considerations discussed in sections 5.7 of Unit-5 and the components of SLPM in section 7.3 above, the distance teachers or course writers involved in developing learning materials for distance learners are expected to possess specialized knowledge, skills and competency. The main pre-requisites of the course writers preparing self-learning material for distance learners are as follows.

**Familiarity with the system**

The course writers should be fully familiar with the instructional system of the distance education institution concerned, the profile of students of the system and of the programme concerned, and the media approach followed.

**Familiarity with the target group**

In distance education system the students come from different backgrounds; educational qualifications, experience, socio-economic status, age, etc. They join distance education courses with different linguistic abilities, potential for learning, study habits, pre-requisite knowledge, motivational levels, rural-urban settings, and so on. The course writers involved in developing learning materials should be well aware of the needs, requirements and learning habits of the heterogeneous group of the students pursuing their study through distance mode. The learning materials are thus to be pitched at the right mental ability level of the students.

**Familiarity with syllabus**

To develop meaningful / effective learning materials the course writers should have thorough knowledge of the syllabus. Therefore, to claim that the SLPMs are self-contained and self-learning the course writers should first analyse the syllabus thoroughly in terms of learning experiences / tasks. Based on their inter-relationships, learning tasks should be arranged in an appropriate order. The writers should know the scope of the content to be covered in a particular course to help the students achieve objectives.

**Familiarity with theories of learning**

Unlike classroom-based learners, distance learners study independently at their homes or workplaces or any other place of their convenience. The course writers need to use a variety of teaching strategies to enable the students to choose the learning strategy suited to their needs. Relevant knowledge of theories of learning and communication on the part of the course writers will help them creatively design SLPMs that suit the individual students. SLPMs must be based on a solid foundation of learning theories and teaching norms to ensure optimum learning in the students. The emphasis here is that the principles of writing/developing SLPMs are derived from the principles of teaching and learning. Hence, the course writers should have a thorough knowledge of theories of teaching and learning.

Besides, a thorough knowledge of effective communication is also a pre-requisite for those who are involved in developing SLPMs for the distance learners. Clarity of content, explanation, language, presentation, feedback on their learning, etc.,
will go a long way in ensuring effective communication and meaningful learning by students. Needless to say that distance education, for that matter any teaching, is a process of sharing information, experience, ideas etc., to achieve the mutually agreed upon objectives of teaching and learning. Sharing of experience or ideas depends on effective communication between the sender (teacher) and the receiver (learner) of information and/or messages. More so, communication becomes effective if it takes place in the language fully understood by the receiver, meeting his/her needs and requirements.

7.5 PREPARATION OF AN SLPM UNIT

Self-learning print materials (SLPMs) are prepared and developed for the purpose of providing programmed instruction to the distance learners. Programmed instruction, in simple words, is the teaching and learning process in which lessons are planned, prepared and produced in advance to provide the opportunity for the learner to have active participation, immediate feedback, success experiences and gradual approximation in the learning process so that he/she can gradually progress according to his/her own pace of learning, ability, interest and convenience with or without minimum assistance from other instructors. Distance education programming is done in the form of independent, but interlinked modules that are called courses. These courses are generally divided into a few blocks. Each block, in turn, contains a few units. Being a second year student of B.Ed programme, you must be, by now, clear about what a programme, course, block and unit mean. Even in technologically developed countries it is print, which is mostly used as the master medium of teaching and learning in distance education. Considering the importance or popularity of print medium the emphasis in this section is on preparation of the materials in print medium. The process of writing/repairing and developing an SLPM explained herein, however, will be useful even in preparing SLPMs in non-print media. Since a unit forms a basic part of a block of any course, the focus here is on the process of preparing an SLPM unit.

The process of preparation of an SLPM unit can be conveniently divided into three stages. They are:

i) Arranging topics (concept mapping);

ii) Preparing unit structure; and

iii) Writing the unit.

Let us now discuss each of them.

7.5.1 Arranging Topics (Concept Mapping)

The first and the foremost task in writing learning materials is to select topics or identify all the relevant concepts and learning activities and arrange them in the most possible logical sequence. The topics, the concepts and the learning objectives are interrelated. A topic tells us what the subject or the point of the presentation is; and the topic may have many concepts. The objective(s) of the unit determine(s) the depth and extent of coverage of topics and concepts and vice-versa.

Identifying and arranging topics provide the writer the ‘concept mapping’ of the unit contents. The concept mapping is a process in which the unit-writer identifies...
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key concepts and sub-concepts in a body of subject matter and arranges them meaningfully around the focal point. A typical concept map contains three elements:

i) Concept, i.e. perceived regularity in events,

ii) Proposition, i.e. linking words between concepts. This shows the relationship between different concepts and even propositions,

iii) Hierarchical structure, i.e. there is a hierarchy in the way events take place.

The students’ pre-knowledge and the nature of the content form the basis for arranging topics and concepts. In other words, the sequencing of content is learner- and learning-oriented. It reflects on the resourcefulness and creativity of the unit designer and the unit writer. The principles of teaching and learning are followed from the very beginning of course development. In any learning, there are certain skills to be mastered or certain information to be learnt before the student moves on to the next stage. It is, therefore, essential to decide upon the order of topics, concepts and the relevant information, skills, etc. The unit writer, wherever and whenever necessary, can seek advice in several ways from the advisory committee, subject experts, instructional designers, educational technologists, and others.

7.5.2 Preparing Unit Structure

In distance education a unit describes a unified theme of knowledge. Different topics are covered in each unit. As mentioned earlier, each unit is self-contained. To make learning materials more accessible and self-instructional/learning, we present the unit structure in the beginning of every unit. The unit structure, as you have seen in the units of previous block and this block and that you can see in the units in the rest of the two blocks of this course, helps the student understand what constitutes the unit. The unit structure helps the student not only to have easy access to the desired learning point in the unit but also to skip or skim the point according to his/her needs and requirements. The unit structure presents a clear outline of how the content or the learning activities are conceptualized and presented by the course writer. The unit structure with clearly differentiated and logically arranged learning activities makes the text more learner-oriented. Each learning activity is given or allotted a serial number. Care is taken that numbering is simple and clear, and makes the learning activities more accessible. A typical unit structure, in general, includes the following (also you can revisit the schematic representation of a unit given under introduction to Block 1 in Block 1 of this course).

X (Unit title)

Unit Structure
X.0 Introduction
X.1 Objectives
X.2 (Main topic 1)
  X.2.1 ......Sub-topic 1
  X.2.2 ......Sub-topic 2
  X.2.3 ......Sub-topic 3
X.3 (Main topic 2)
X.n (Main topic n)
X.(n+ 1) Summary
‘X’ stands for number of the unit and ‘n’ stands for the nth ‘topic or sub-topic or parts as they are arranged. Here, you can pause a while and take a look at a few unit structures available in this Block and in other Blocks of this course or other courses of BEd programme, and come back to proceed further here. (That will broaden your understanding of unit structure as you can notice some minor variations, if any, in the unit structure in different courses, depending upon the approach of the unit designer/course writer to the unit structure).

It may be noted that the References are, as usual, given towards the end of the unit, in which Suggested Readings are also included at the end.

### 7.5.3 Writing the Unit

Since there are many ways of teaching and learning, there can be various formats/styles of presenting SLPMs. The course writers, therefore, should know various ways of presenting learning activities.

There are three main parts of a unit — the beginning of the unit, the main body and the ending of the unit. Let us discuss each part, in brief.

**i) Beginning of the Unit:** This part of the unit usually includes the following access devices:

a) **Unit Structure:** Every unit begins with the unit structure or the contents list. Being pedagogically more meaningful the expression ‘structure’ is preferred than the contents list. This device has already been discussed under sub-section 7.5.2 above.

b) **Introduction of the Unit:** The main purpose of an introductory section is to introduce to the students what they will be studying in the unit. Like an effective classroom teacher, the introductory section of a unit provides necessary guidance to the student to facilitate his learning. There can be several ways of writing the introduction of a unit. There are generally three components of an introduction.

   i) **Structural component**, i.e., linking the contents of the unit with what has already been discussed or what the learner has already studied. In other words, the introduction should be based on the pre-requisite or prior knowledge of the students.

   ii) **Thematic component**, i.e., presenting and highlighting in a very friendly and personalized style an overview of what is being dealt in the unit.

   iii) **Guidance component**, i.e., providing necessary instruction (related to the content of the unit) to facilitate learning.

A resourceful course writer provides guidance about what a student is supposed to do before he starts reading the unit. Guidance can be given with reference to time, special activities, equipment, books, etc., needed for the unit and instruction.
c) **Objectives**: Defining objectives in terms of learning outcomes is useful for both the course writer and the students. Well defined objectives, in terms of learning outcomes, help in planning, developing, evaluating and revising any learning activity until the desired outcomes are achieved. There can be three domains of objectives: knowledge, affective, and psychomotor. Even within each domain the objectives can be set at lower or higher levels. The number and the level of the objectives should be according to the mental level of the students, and they should be achievable. Moreover, we need to ensure that the objectives set for the unit/students are measurable. Considering the features of distance education, we have to devise ways and means to assess the accomplishment of objectives. It implies that we should be realistic in setting objectives for a unit. Sometimes, objectives are placed before the introduction, as you can notice in the case of certain courses of IGNOU.

ii) **Main body of the unit**: This part of the unit includes the presentation of learning content/activities to be learnt by the learners. We should decide on how much of the materials/learning activities we would be including in the unit. It would be appealing if the content is aimed at achieving the objectives. It is always good if the content is divided into small but manageable learning steps or sections. Each section should present at least one new point, and exercises related to that/those points. As you have already seen in this course, these sections are further divided into sub-sections. Each section and sub-section is given a suitable title and, wherever necessary, a serial number. The title should be easy to recall or remember, and should communicate the essence of what is discussed thereof. The title should reflect on objectives. The main body of the unit will have the following broad features.

a) **Logical arrangement of learning points**: The learning steps are logically arranged so that the learner proceeds from one learning step to another. And there should not be any abrupt gap or break between two steps. In other words, there should be a smooth transition from one learning point to another. The logical arrangement of content will ensure linkage between/among learning points. There can be linear and/or branching approaches to arrange learning events. In the unit structure also there should be a display of continuity and consistency of learning events.

b) **Ordering of content**: The learning activities are arranged along the principles of teaching and learning. The principles of effective teaching proceed from the known to the unknown, from the simple to the complex, from the concrete to the abstract, from general to the particular, from actual to the representative, and so on, and are followed in writing a unit. Such an order of learning activities will have a logical flow and will create continuity of the desired focus.

c) **Personalized style**: The course writer should be sympathetic and generous in discussing the content adequately. The content should be discussed in a conversational style and we should address the student directly in a friendly, informal tone. The student should feel as if he is listening or talking to the invisible distance teacher. Our discussion
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should establish an emotional link with students through varying styles of presentation of the content. Efforts should be made to link the content with the students’ life experience keeping in view the need for variety and change of pace to sustain the interest of students. At this point, you may recall the principles of self-instructional/learning materials such as self-directed, self-contained, self-explained, etc. that are to be maintained in presenting the content. Here, we should think of using more than one means of communication.

d) **Language:** The quality of language is decisive factor in assuring the quality of SLPMs. The language used should be warm, friendly and, above all, grammatically correct. Long, unfamiliar and double negative words should be avoided, unless they are demanded by the text. Language should attract the students to read the text, involve them in the discourse and interact with the text. Personal pronouns such as ‘You’, ‘I’ and ‘We’ should be used frequently.

e) **Illustrations:** Illustrations, diagrams, charts, examples, etc., form an important feature of SLPMs. Illustrations create interest in the students, stimulate their imagination, increase their comprehension and help them retain the knowledge. Illustrations make the abstract concepts concrete. There is no definite formula to decide the number of illustrations/diagrams in a unit. It depends on the nature and difficulty level of the concepts being taught / learnt. Remember, simplicity and clarity of illustrations constitute the guiding principles of effective communication. Illustrations linked with real life experience will make the unit more lively, impressive and interesting.

f) **Assessment:** Assessment helps in monitoring whether the student is moving towards the set objectives or not. Therefore, each step should be followed by an assessment item. Assessment also helps the students learn better and provides them feedback about their progress (self-assessment). Besides, while the students work on assignment question it (assessment) initiates a dialogue (pedagogic interaction), breaks the feeling of isolation among students, and reinforces their learning.

iii) **Ending of the unit:** This is the last part of unit where the important learning points discussed in the main body of the unit are summarized, in brief. Summary helps learners recall the gist of the discussion and reinforce their learning. Thus, this component is a sort of recapitulation of the main learning points. It reminds the students of all the activities/tasks completed or learnt by them in the unit. This part contains, besides summary, glossary, answers to self-check exercises/check your progress questions, and references and suggested readings.

a) **Summary:** The summary of the unit can be presented in a variety of ways/forms. It can be in paragraphs, points, charts, tree diagrams, etc. The summary section should be comprehensive enough to provide proper feedback to the students and also to get our messages across.

b) **Glossary:** The crucial, key, new and technical words are better explained to the students to enhance their comprehension. The words with multiple-meanings need to be defined with proper explanation. This leads to better understanding of the working definition of the terms, particularly the most crucial ones.
c) **Answers to self-check questions:** The answers to the self-check questions, given in the text at the end of different sections/sub-sections, are provided at the end of the unit. These answers provide feedback to the students. These answers can be given in different ways, such as hints, full-answers, model answers, etc., depending upon the type and nature of self-check questions. The answers should be clear and comprehensive. Also, these should be in consonance with the number of words, number of lines, etc., prescribed under the respective questions. Further, these answers should be clear in terms of language, explanation offered, etc. The answers should, however, be based on what has been discussed in the unit.

d) **References and suggested readings:** A list of references and suggested readings is presented to help those students who want to know more about the content of the particular unit(s) or topic(s). The course writer, however, should ensure that the readings particularly are useful, relatively cheaper and easily available in the market. We can even suggest books as essential or optional or helpful in doing the assignment responses and/or term-end examinations. There should be complete information about the book(s) such as author, year of publication, title, publisher, place of publication, and relevant chapter(s) / page(s).

Once the unit is prepared by the unit/course writer, it requires editing. You will know about editing in section 7.6.

### 7.6 EDITING OF THE UNIT

Different writers with different writing skills may contribute the academic content to the unit. They usually work independently on separate units and one does not know what the other has presented in his/her respective unit. As far as the content presentation and the quality are concerned, there will be overlapping and unevenness which will have to be smoothened out by an editor who has good grasp of the subject matter. Language will be another matter of concern because there will not be uniformity of style. If these can be taken care of, somehow; still there will be need for someone who can shape the materials into distance-learning or self-learning format, incorporating or introducing the relevant features of self-learning texts. These situations call for editing of the material prepared, in order to develop it properly. There are at least three distinct types of editorial work:

- **format editing** (to be done by educational technologists or distance education experts).
- **content editing** (to be done by senior academics in the field).
- **language editing** (to be done by language experts who have adequate command of the language, which is the instructional medium).
- **copy editing** (to be done by the technical experts with adequate knowledge and experience in printing of the material).

Obviously, the editor in the classical course team does not have to worry much about the above types of editing because the three experts concerned are already there in the course team and they work in unison exchanging notes and drafts at every stage of course development on regular basis during the meetings of the course team. This is a classical situation which is rarely followed.
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On the other hand, in the second situation (in which units are written by unit writers and later format edited, content edited and language edited by other experts in that sequence), which is the case in many ODE institutions, our concern is that the three types of editing (format, content and language) need to be done in a slightly different way.

The three primary concerns of any editor in charge of developing self-learning materials are:

i) the educational effectiveness (i.e. making the text a self-learning one following principles of self-learning, independent-learning, etc.),

ii) the academic credibility (i.e. the level, adequacy, accuracy of the content), and

iii) the readability of the text (i.e. simple, conversational style, appropriate level, etc. of language).

If the editor happens to be a senior academic in the given discipline who can take care of the content part, then the other two can be managed with the help of a distance education expert and a language expert. If not, then, whoever is responsible for developing the course(s) will have to look for persons who can do the three types of editing simultaneously. When you do not get an ideal person with a combination of all the three editing skills, you have to look for persons who can edit the units independently focusing on only of the three aspects in which he/she has the expertise. The academic who coordinates these functions is called a course coordinator. He/she can even consider doing these three types of editing himself/herself, subject to having the expertise and experience to do so, which occasionally can result in very good quality material.

How the three types of editing can be done, in the absence of a course team in the classical sense, will be the focus of our discussion in the following sections. Before that let understand what types of course writers we come across.

Course Writers: Possible Types

If you were a course coordinator and perceptive you would have noticed, during the meeting of the course writers orientation, at least three typical responses from these writers:

One type of response may be from the good subject experts who promise to give good content input but would not bother much about your systemic needs and the needs of the learners (For these writers, the content and its quality is the most important one. The rest may be important for you but not for them, for whatever reasons. However, you can certainly get good quality content from them). You are free to put the content in whatever format you choose to.

The second type of response might be like this: “We will try our best to put the content in the way you have suggested. But if there are gaps, do not blame us. You will have to do the rest”. (This group is usually receptive to new ideas and experiments but may not promise the Moon. They may give content of acceptable quality too).

The third type of response may be from the ‘writers for all reasons’. They might have assured you something like this: “Young man! Don’t worry about our
contribution. We have been in this business for the past so many years and we have written scores of books and hundreds of articles on the same topic. As for your distance learning format, it is child’s play for us. You will get our units in time but send our payments promptly after receiving them”. These are the ‘high profile’ writers who usually move closely with heads of institutions, senior managers and bureaucrats with a propensity for much visibility and less sincerity. You have to accommodate them because these are the persons who lend their names, if not the content of high quality, an act which the institutions may think important to earn credibility and acceptability for their pioneering efforts. (For political reasons and ironies such as these may have to be accepted as contributions, in whatever shape it may reach you).

The last category may at times send you their units in time or never. The second category would send in their units more or less in time with an acceptable content in a reasonably good format, incorporating the features of self-learning materials to the extent possible within the time frame. The first category would send us their units in time or, if they are otherwise busy, after a few reminders. The quality of the content supplied by these writers will be of very high quality, though they may not have put it in the format desired by you.

In short, you may receive the units of the following three categories:

i) Units in the form of rough drafts which need heavy editing, padding and polishing in terms of content, format and language.

ii) Units which give you excellent content but need transformation in terms of format and presentation.

iii) Units with acceptable quality of content and generally good in terms of format but needs some language editing and also some polishing of content and presentation.

Whichever category of units you receive, they all must pass through one or the other of the three types of editing we mentioned earlier: format editing, content editing and language editing. We shall discuss each one of them in some detail in the following sections.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

3) Briefly describe the possible three types of Course Writers. (You can think of other possible types too). Comment on these types from the point of view of an editor.
7.6.1 Format Editing

What we mean here by ‘format editing’ is nothing but the educational technology inputs which come from the educational technologist working in a typical course team situation. In the absence of facilities for a full-fledged course team working as a team, alternative strategies must be found to get the same output and quality. In Indian situation, content editing and language editing have been done in the correspondence lessons of the old type too. What is really an additional input is the attempt to improve upon the earlier or existing practice by bringing in the advancements of educational technology in presenting the otherwise good content. Let us look at the figure given below.

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A. SLPM Format (an IGNOU Unit)

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B. SLPM Format (an UKOU Unit)

Fig. 7.1: Two Different Formats of SLPMs
The very physical look of formats shown in figure 7.1 would suggest you that distance learning lessons have certain special features which are not there in the lessons normally used in the classroom teaching. But the “formats” are not just physical layout, design and font size. They have certain useful pedagogic and learning principles embedded in them. These pedagogic and learning principles, in fact, warrant the changes in the physical design and layout of the texts in order that the intended learning objectives are achieved effectively. In any format of a SLPM unit, you can see three main components: the beginning, the main body and the end. Each component includes some of the pedagogic and the self-learning principles in a variety of ways allowing enough scope for the text to remain open and flexible. These are the access devices through which learners comprehend the content. We shall see what the pedagogic and the learning principles are and how they get incorporated in SLPMs in the following sub-sections.

A) The Beginning

Let us look at Fig.7.1 again.

In the IGNOU unit, for example, the ‘structure’ gives you the entire list of contents discussed in the given unit. Of the contents given in the ‘structure’, the first two sections 1.0 and 1.1 in the ‘structure’ itself constitute the beginning of the Unit. What do they signify?

Of course the ‘Structure’ itself gives us firstly an outline of the unit. By looking at the list, we would know what we should look for in this particular unit. Secondly, this preliminary information is also significant in that it prompts us to start our learning exercise. This psychological preparedness or readiness to learn is important for any learning process. Thirdly, we would know the scope of the unit and thus we know what we should expect from the unit.

Section 1.0 (i.e. ‘Introduction’) serves usually three main purposes:

- It establishes a logical linkage between the previous unit (or knowledge) and what is going to be presented in the following unit;
- It gives an overview of the content presented in the unit more explicitly than what the ‘structure’, i.e. list of contents does;
- It also gives the learners study guidance wherever needed as to how the learners can proceed or what the pre-requisites are for their successful study of the unit;

As a format editor, you have to look for the above three elements in any ‘introduction’ and if you do not find at least two of them, then, you will have to rewrite the introduction afresh.

Section 1.1, i.e. ‘Objectives’ enables the learners to focus their study and they will legitimately look for the necessary information/content from the unit to achieve the set objectives. The learners will also try to relate the objectives with the sections and sub-sections of the unit. Whether the objectives should be set in behavioural terms or instructional terms and at what levels will have to be decided by you, depending on your purpose and also the school of thought you belong to.

In the courses of some programmes of IGNOU, ‘Objectives’ precedes ‘Introduction’.
B) The Main Body

Look at the ‘Structure’ again in Fig. 7.1 once again. Sections 1.2 to 1.6 actually contain the ‘main body’ or the content of the unit. You will notice that these sections are further divided into subsections. In the actual text, each section, sometimes some important sub-sections too, will be followed by an activity -- an exercise, a Check Your Progress exercise, or a Self Assessment Question (SAQ).

Editing of this part of the unit pertains to content editing. The course authors or writers play the major role in selecting and presenting the content. However, for some degree of uniformity in selecting and presenting the content and pitching it at the appropriate level, you need someone to go through the entire course, preferably all the courses pertaining to the programme to smoothen out the possible unevenness of the content level and the style of presentation. The responsibilities of a content editor are crucial in ensuring quality as well the academic credibility of the courses. If the content editing is not done properly, then, the quality of the course/programme will suffer, notwithstanding the case given to the technical and production aspects of course preparation.

Editing at this level must focus on the following aspects:

- Relationship or link between the objectives set at the beginning and the content presented in the main body of the unit;
- Appropriateness of the level, adequacy and the quality of the content (It does not serve our purpose, if the authors present excellent content ignoring the level of the learners. The level of content, for example, difficult enough for doctoral degrees, will be no good for first year undergraduate students who are initiated to the basic concepts of a given course/discipline);
- Logical sequencing of the content;
- Explanations, illustrations, examples, etc wherever necessary;
- Spontaneous flow of ideas and arguments;
- Relevance of information given;
- Updated and accurate information;
- Presentation of content in small and manageable chunks in the forms of sections and sub-sections;
- Enough number of activities to break the monotony of the reader and to help him access the main points of the discussion;
- Sign positioning through headings, bold or italic, font sizes and numbering.

The above list is only illustrative and not exhaustive. Rountree (1991) and Jenkins (1985) will be useful in giving you comprehensive treatment of the issues related to content selection and presentation. Lockwood (1994) gives you an in-depth analysis of the learning activities possible in self-learning texts. “ES-312: Design and Development of Self-Learning Print Materials” is one of the courses of IGNOU’s (India) Post Graduate Diploma in Distance Education Programme which discusses many of the relevant issues related to course development for distance education in the context of the developing countries.
The key elements in content editing, however, relate to the points listed above. But how to ensure that the above points are taken care of? Here are some clues:

- Check whether the objectives are kept in view when the content is presented in the main body (If not, either change the content or modify the objectives in the second draft of the unit. Remember, no draft is good enough to be final).

- Present each main idea in a section and the supportive ideas in sub-sections.

- Do not allow too many ideas and details to crowd the text (It will be intimidating and stifling).

- Draw a concept map to ensure logical flow of ideas and arguments (of course, it depends on the requirements of given discipline).

- Give at least one activity or exercise at the end of every section, and if necessary, after a sub-section too. Vary the level of activities and avoid trivial exercises and activities demanding too much from the learner. (For example, there is no fun in this exercise, “When did India become independent?”; if it is given at the end of the section which starts with “India became independent on 15 August 1947”. Similarly, here is no point asking your learner to answer a question, which is good enough for a tutor-marked assignment).

- While numbering the sections and sub-sections, generally do not go beyond three digits (i.e. 1.2 and 1.2.1 are good enough); and if necessary go up to 1.2.1.1, in certain sections; but going beyond, up to five digits (i.e.1.2.1.1.1) will lead to confusion and awkwardness.

- Use familiar examples, photographs, graphics, etc. to help the learner grasp the main points clearly and easily.

- Start the presentation from the known and then move on to the unknown or the more difficult part of the content.

- Try to incorporate the feedback you may have received from your colleagues, potential students, previous batch of students and experts at the time of developmental testing.

- Read the unit as student would identify the possible areas of difficulties. Check them with the opinions of your peer group and the potential students.

Some writers have the skills to present the content interestingly even without the above ‘access devices’. But the access devices always help you to enhance the understanding of the learner. While introducing the access devices, it is always advisable that the format editor (i.e. distance education expert) and the content editor consult each other to avoid any possible jumbling of content sequencing or illogical division of sections and sub-sections.

C) The Ending

This is the third and last component of a self-learning unit. Here you will have the following items:

- Summary of the main points and/or conclusions.
- Suggested possible answers to the Check Your Progress exercises / SAQs.
• Glossary of terms, wherever necessary.
• References, to authenticate and acknowledge the sources of material used.
• Suggested Readings list, i.e. a list of books and articles for further reading by the learners.

The editor should take care that the summary and the answers to the SAQs serve the intended purposes. The summary should help the learner recapitulate the main ideas already discussed. The answers should give the feedback and reassure the learner about his learning. The glossary must act as an instant dictionary with contextual meanings of the terms explained. References must appropriately authenticate the sources. The reading list should consider the availability, readability and affordability of the books/articles recommended.

7.6.2 Content Editing

Content editing is to be done by competent (senior) academics in the field. Content editing, thus, must ensure the academic relevance, the quality and the logical presentation of the content.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

4) Suppose, you have joined a distance teaching institution very recently. You did not have any exposure to the system. You are asked to coordinate a course in your own academic discipline. How will you go about the task?

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7.6.3 Language Editing

Ideally, language editing must be done by the content editor. In a situation where the mother tongue of the learners happens to be the language of the medium of instruction also, usually the language editing is done by the course writers or the general editor focusing on the style and the difficulty level of the language used in writing the text. But in a bilingual or multi-lingual situation where the medium of instruction is not the mother tongue of the writers and the readers (learners),
then a number of problems arise in the entire process of educational transaction. In India and many other developing countries English still remains the main instructional medium at the level of higher education. The role of English in education in general and in higher education in particular cannot be ignored in these countries. Even if alternatives are possible, they cannot be brought in overnight. In such a situation, we have to use English the way it can serve us best.

The issues related to English as a medium of instruction in distance education in 11 Commonwealth countries have been studied in depth by Koul and Creed (1901). Others have drawn the attention of distance educators to the various issues of language as a crucial factor in the practice of distance teaching. In all these studies, we notice that one common issue that stands out prominently is the need for improving the four basic skills — reading, writing, speaking and listening — of distance learners to cope with their study materials written in English.

What is true of the distance learners is also true of the distance education course writers / authors in the developing countries. The writers who write the learning materials in English do not usually have the command of or the facility with English language which they have acquired as a second or third language under extremely adverse conditions. It is not uncommon to see academics with doctoral degrees speaking and writing poor English. Since there were / are no remedial measures to correct their English, they continue with their own English, which may be pardonable in informal situations but unacceptable in formal and professional contexts.

Though we can find explanations for this phenomenon in Linguistics (historical linguistics, socio-linguistics and psycho-linguistics) we cannot find solutions to the problems created by incorrect uses of a language, particularly English which remains the mainstay of writing distance education courses in the Commonwealth countries.

Many course writers who write their units/lessons in their respective disciplines cannot simply overcome their linguistic limitations. The only solution that seems to be possible in the present situation is to get the units linguistically edited by those who have a reasonable command of English. Here, two things are important. The subject expert must realize that unless his expertise is expressed through the medium of (English) language, practically it has no value and academically it cannot enjoy any status; and the language expert, on his part must know that his job is to convey the content in the best possible manner without distorting the ideas and the concepts presented in the content. Neither the content expert nor the language expert should claim superiority over the other, if their efforts should bear fruit.

During the process of language editing the following must get the primary attention:

- The linguistic abilities of the learners,
- The level of the language matching the level of the content,
- The grammar and the spelling,
Vocabulary and technical terms,

Syntax and the idioms,

Simplicity and clarity,

Conversational and friendly style.

The language editor as well as the course writer should have some idea about the linguistic competence of the learners whose mother tongue is not English. But, who are your learners? It is an extremely difficult and complex question to answer. In a country like India, if you consider the range of learners of whatever programme you choose, you are bound to meet with a heterogeneous group with varying linguistic skills in English from the poorest to the best. For example, is there a definite standard to measure the linguistic competence of a student who has completed his school finals? The answer is an emphatic ‘no’, because the standards vary from school to school and from region to region.

It is this indeterminable state of the linguistic competence of the distance learners that results in disappointing performance in courses, particularly if the admission policies are liberal. Pending an academic policy decision that needs to be taken by the institutions concerned, we the academics responsible for the content and the presentation must arrive at a conclusion about our average learner and pitch the language accordingly. Our notional standard of expected linguistic competence to complete the given course will certainly help us determine the difficulty level of the presentation of the content.

Of course, the difficulty level of language will depend on the nature and the density of content. You may have noticed that in many courses meant for the first year students of B.A or B.Sc of Indian Open Universities, the content level is high and dense and the presentation is hardly user-friendly. This is so, because there has been little or no appreciation of the linguistic competence and previous knowledge of the learners.

As a rule of thumb, at least we should, and we can, ensure the following:

- Writing the sentences correctly (i.e. without grammatical errors).
- Writing the words without spelling errors.
- Following the UK or USA spelling consistently (I would follow the UK spelling as it is widely used in our country).
- Writing simple and short sentences.
- Using active voice wherever possible.
- Using the correct idioms, phrases and expressions.
- Employing personalized, conversational and friendly style to make the text user-friendly and also make the learner feel that you are talking to him through your writing (e.g. “You”, “I”, “We”).

The language editor can always consult the content expert while presenting the concepts and difficult ideas. The language editor may not be familiar with certain technical terms and discipline-specific jargon, and because of this unfamiliarity he may “correct” the text. These corrections will become errors and will result in confusion. Therefore, wherever the language editor has doubts about the concepts and the ideas presented, he/she should consult the content expert before correcting the language.
Check Your Progress

Notes:  a) Space given below the question is for writing your answer.

       b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

5) Explain the importance of presenting the content in simple and clear language.

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7.6.4 Copy Editing

Copy editing is a mechanical aspect of the editing process. The house style followed by an organization regarding the layout of the text is taken care of by the copy editor at this stage. Before Desk Top Publishing (DTP) came into practice, manuscripts were edited by professional copy editors primarily to assist the printer to bring out the text in the way the organization wanted it. So the focus of copy editing is on the following aspects which constitute the house style:

- Inside cover page, the first page or the starting page of the block / book wherein you mention the names of the experts, unit writers/authors, editors, production staff, etc., and also the titles of the course, block and the units;
- Specifications about the font sizes of the unit title, sections, sub-sections, subheadings, etc., and the numbering;
- Starting of each unit (whether on a new page, what should be the space allowed before the unit starts, etc.);
- Space for activities, exercises, etc. within the text;
- Conventions of arranging tables, figures, graphics, photographs, etc. and placement of titles for all these items and deciding appropriate places and space for them;
- Alignment of paragraphs, the margins, etc., to keep the uniformity of the physical look of the text;
- Sharpness of letters/characters and space between words and lines;
- All other items of layout in a printed text.

In the pre-DTP days, copy editing had to be done by a professional copy editor. These days everyone who knows how to operate personal computers (PCs) do the copy editing as per the specifications decided by the faculty. The specifications for the layout and font size of a unit could be decided by the faculty or followed as per the set institutional practice, if any, before the materials are sent for printing.
7.7 LET US SUM UP

In this unit, we explained the concept and need of SLPMs in distance education. We have discussed two components – active learning component and active devices – of SLPM unit. We have emphasised the pre-requisites of course writers/designers, which will help in identifying appropriate course writers. We have also discussed the steps to be followed in preparation of an SLPM unit alongside its three essential components/parts – the beginning, the main body and the ending.

Editing is crucial in assuring quality of learning materials. The editor/course coordinator has a major responsibility in the process of developing quality learning materials for distance learners. In view of this, we have focused on:

- the role of editing in the different situations obtaining in the distance teaching institutions,
- the range of editorial concerns in the development of self-learning materials, and
- the different types of editing such as content editing, format editing, language editing and copy editing, which may be necessary, under the given situation.

We hope the contents of this unit are in tune with the objectives of the unit.

7.8 ANSWERS TO ‘CHECK YOUR PROGRESS’ QUESTIONS

1) SLPMs are the specially designed and developed instructional/learning materials to meet the needs, interests, abilities and problems of distance learners. In these materials the distance teacher performs, through media and technology, the roles and functions of a classroom teacher who does them mostly through oral medium. In these materials the instruction is well programmed in print materials with a view to providing an opportunity to the learners to effectively participative, get immediate feedback and gain success experiences. The SLPMs enable the learners to learn according to their own pace of learning, interest, ability and convenience with or without minimum assistance from the distance teacher / instructor / institution.

The SLPMs are essential for distance education because they address many problems that may arise in the process of isolated learning by individual distance learners.

2) The access devices that are generally present in the SLPMs include: i) title of the unit, ii) structure of the unit, iii) objectives, iv) illustrations, v) summary, and vi) glossary.

3) I can think of the following three types of course writers:
   i) Those who can give excellent content in a desirable self-instructional format;
ii) Those who can give excellent content, but not in the desired self-instructional format. In this case, I will seek the help of the educational technologists, as may be required;

iii) Those who can give an average content in a somewhat self-instructional format that need heavy editing in content and format.

4) In the first place I would read the relevant literature to understand the principles and process of course design and development in distance education, and will also discuss the same with experienced senior colleagues regarding the practical difficulties in executing the task.

I would, then, consider the content requirements of the course concerned. I would contact the experts in the field, and after getting their consent to be the course writers, I would have a meeting with them wherein I will discuss and explain the relevant aspects of SLPMs, the associated issues and concerns, and make them clear the format in which I want the units/lessons from them. I would give them a definite schedule to get the units and decide on the payment norm as well. Once the units are received I would go through them first, do the format editing to suit to the house-style, and get its content and language edited by the experts. If necessary, I would seek the help of the educational technologists and others to finalise the units.

5) Learner can have effective access to the content through language. Unless the language used in a unit is simple and clear, the distance learner studying in isolation will have problems in understanding it. S/he cannot contact others to explain the presentation of content at every stage. Simple and clear language not only motivates the learner but also enhances self-learning by the distance learners.

7.9 REFERENCES


7.10 UNIT END EXERCISES

Unit End Questions

You may write brief notes or full-length answers to these questions in your own interest. It might help you during your preparation for examination.

1) Explain the concept, need and components of SLPMs (1000 words).
2) What are the pre-requisites for writers / designers of SLPMs (500 words).
3) Explain the process of preparation of an SLPM unit. Give suitable examples at each stage. Of the process (1000 words).
4) Discuss different types of editing involved in development of SLPMs. (1000 words).

Questions for Critical Reflection

1) Development of SLPM Unit is not every one’s cup of tea. Justify the statement.

Activity

Select a lesson from a textbook of the subject you are teaching for any class of your choice. Or you select a chapter from a book of on the subject you teach. See that it has about 2500-3000 words. Read the selected lesson / chapter thoroughly with a view to attempt to transform it into a self-learning print material. You read this unit also once again and transform the selected lesson / chapter into an SLPM unit.