

CHAPTER 9

INSTRUCTIONAL MATERIALS SELECTION AND UTILIZATION

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1.0 Learning Outcomes

At the end of this chapter, you should be able to:

- i. Define instructional materials
- ii. Classify instructional materials
- iii. List the various elements of the ASSURE model
- iv. Explain the elements of the ASSURE model

2.0 Introduction

The aims of schooling are to educate for meaning and understanding. The primary purpose of schooling is to define who we want to be and an understanding of the things we need to do to be who we want to be. It transcends into how students develop cognitively, psychomotor and affective. Central to these aims and students developments are the teachers, saddled with the responsibility to assist students through the process of teaching. Teaching can be viewed from two broad perspectives: as an act and also an art.

Teaching as an act can be expressed as the presence of a teacher in the classroom who delivers the instruction and leaves. Teaching as an art are the creative means or ways a teacher employs to make the teaching-learning process interesting, captivating and above all assist students' understanding, retention and retrieval. The creative art of teaching is a tasking process beginning from the identification learners, assessment and evaluation of the teaching-learning process. Qualitative teaching will start from instructional objectives and instructional materials that will be used to reinforce the achievement of the stated objectives. Instructional materials are those things such as but not limited to charts, realia, mock-ups, globe, field trip, animations, video, audio, pictures that a teacher employ to make teaching easy and to reinforce learning.

3.0 The Concept of Instructional Materials

Instructional materials are used to provide required environment to improve student knowledge, abilities and skills, monitor assimilation of information and to contribute to their overall development and upbringing. Instructional materials play important roles in making the instructional process interesting, captivating, aid understanding, retention and retrieval. Instructional materials can be defined as those items such as books and other printed materials, video and audio recordings, computer software and digital content which are used as part of the instructional process, Timothy, Donald, James and James (2006). It can also be viewed as the object or device that conveys the essential information and skills required of the subject matter through a medium or combination of media for effective teaching and learning of the curriculum content.

The success of any instructional experience depends on the type of instructional material used. Instructional materials are those items a teacher introduces to the learner during classroom interaction to influence learning. Instructional materials are used to boost students' comprehension and understanding of the concept taught and it is an integral component of instructional plan. The design and utilization of instructional materials is important because, it is the interaction of students with these materials that generates and reinforces actual learning. Instructional materials can be used as a compliment or supplement to instruction. As a compliment is to boost intended learning and as a supplement is to take the place of the teacher. For an effective learning experience, instructional materials, media and methods work together in a selected and coordinated manner.

The use of instructional materials influence the way we learn in these percentages; 10% of

- 10% what is read
- 20% of what is heard
- 30% of what is seen
- 50% of what is seen and heard
- 70% of what is seen and talked about
- 90% of what is talked about and done (Dike, 2002)

In retrospect, learners in the traditional teacher-centered classroom will learn about 20%, with the use of instructional material learning should increase to about 70% - 90%. This will arise as a result of other senses activation, attention, and motivation. It also prompts discussion between the teacher-learner and learner-learner.

Instructional materials are tools that are used to explain the curriculum content, therefore, it must be properly designed and developed and should address the total needs of the students; cognitive, physical and aesthetic developments. The use of instructional materials contain fixed information which last for a period time due to changes in curriculum, education policy, new information and understandings. It is expected at such instances that, the instructional material will be upgraded and updated to suit the immediate learning needs.

Selection and Utilization of Instructional Material

Ordinarily, to select means to choose from a variety of options. The choice of the car an individual buys is based on certain factors; financial capacity, fuel consumption, spares parts, durability. This kind of thoughtful process is also employed in the teaching-learning process. A teacher will consider his learners, lesson objectives, the kind of instructional methods to employ, materials to facilitate learning. Thus, selection of instructional material is the systematic process of designing, developing and or adapting and adopting an instructional material for the purpose of facilitating effective teaching-learning process. The selection and adoption of instructional material is a complex process because of the class of stakeholders involved. The teacher to use the instructional material, the students for whom the material is produced, the environment where the material will be used and the instructional material itself are germane issues to be considered. The teacher has to consider his competency during the selection, design, production and utilization stages of the instructional material. It is equally important to consider the environment where the instructional material will be used in terms of electricity, technicians needed, back-up materials required. The students for whom the instructional is produced are also important. They have to be considered along their ethno-religious believes, age, socio-economic background. In order to assist teachers in selecting appropriate instructional materials for

teaching, there are conceptual models that can be employed. Conceptual models are made of human constructs or concepts used to help people know, identify and understand connections that exist between systems and processes. Conceptual models provides insight into how things can be done in a more efficient and effective manner to achieve the desired results. Amongst other models employed for instructional material selection is the Heinich, Rusell and Smaldino ASSURE model, Tony Bates SECTION'S model, Dick and Carey model. The Heinich, Rusell and Smaldino ASSURE model will be discussed.

The ASSURE Model

This unit of study shall employ the ASSURE model as proposed by Heinich, Rusell and Smaldino (1999). This model gives a roadmap of what to do in the process of selection and utilization of instructional material. The ASSURE model is an instructional guide for planning and conducting lessons that aim to integrate media and technology into the instructional process and also focus on the learners need. This model is based on six classroom procedure:

- Analyze Learners
- State Objectives
- Select Media and Materials
- Utilize Materials
- Required Learners Response
- Evaluate and Revise

Analyze Learners

This focuses on the general characteristics of the learners with respect to their age, grade level, physical needs, economic status, knowledge and skills. Also considered are the contents of the syllabus, the activities that are required of the learning experiences and materials and resources are available.

State Objectives

That is what the learners should be able to do or perform at the end of the lesson. Behavioral objectives contain:

- I. Identification of learners.
- II. Behavior to be demonstrated; should the learners demonstrate a concept, draw an image or define a concept
- III. Conditions under which the behavior will be observed
- IV. Degree to which the learned skills are to be mastered

Select Methods, Media and Materials

Once the characteristics of the audience has been determined and instructional objectives stated, the next step is to determine the best instructional methods, media and materials to foster learning. An instructional process can incorporate two or more teaching methods before the learning objectives can be achieved. The selection process has the following steps to be followed:

- I. Decide on the appropriate instructional methods for the stated objectives
- II. Choose media format that is suitable for the method
- III. Select, modify or design specific materials within the media format selected

Things to consider when Selecting Media and Materials include

- I. Available resources
- II. What combination media are available
- III. Time and budget allocation
- IV. Classroom size
- V. Technical expertise
- VI. Determine the currency and accuracy of information in the case of modifying an existing media
- VII. Determine its motivational level. Does the material selected have enough captivative captions to motivate the learners to learn?

Utilize Material Decision has been made about the methods and combination of media to use. The next step is to utilize the material. This is the classroom presentation of instruction using the instructional material that has been selected.

Guidelines for utilization instructional materials include

- I. Preview materials. This step should be taken to ensure the accuracy and appropriateness of the material. This is done to erase technical difficulties that could arise
- II. Prepare materials: gather up all the media and support materials, practice using the media and determine the sequencing of the instruction
- III. Prepare the environment: this is the movement of material and people to aid utilization. This includes the setting-up of facilities where the instruction will take place, rearranging classroom seating, and lighting.
- IV. Present the Instruction

Require Learners' Response and Participation

Students learn best when they are actively involved in the learning experience. Incorporate questions and answers, discussion, group work, class work and other activities to engage the students in the instructional process. This helps to clarify areas and concepts that are not well understood.

Evaluate and Revise

After instruction, evaluation is of paramount importance. Evaluate the entire instructional process starting from the stated objectives, instructional strategies employed, media and materials used to aid instruction. Determine whether these elements of the instruction were effective or need for modification. Also evaluate the learners to detect and correct learning problems and difficulties that may interfere with the accomplishment of the lesson objectives.

Classification of Instructional Materials

This is the breakdown of instructional materials into varying categories as they appeal to the learning sensory; auditory, visual and audio-visual.

Audio instructional materials; they are learning materials that appeals only to our hearing senses. It has no direct or indirect relationship with the other senses. Audiotapes, telephones and instructional radio are audio materials.

Visual instructional materials; these are materials that only appeal to our eyes. This includes pictures, charts, and globes.

Audio-visual materials; they are instructional material that appeal to both hearing and visual senses. It presents a simultaneous learning experience, Akinpelu (2011)

Types of Instructional Materials

1. Non-projected visuals
 - a. Still pictures
 - b. Graphics
 - c. Models and realia
 - d. Charts
 - e. Cartoons
 - f. Maps and globes
2. Projected visuals
 - a. Projected still pictures
 - b. Motion pictures
 - c. Translucent materials
 - d. Opaque materials
 - e. Film projector

There are different types of visual projectors at the level of classification. There is the Overhead projector (OHP) for projecting materials that will allow light to pass through. Closely related to the OHP is the slide projector which uses transparencies cut into specific sizes. There is also the Opaque projector; it is used to project pictures and materials that will not allow light to pass through it.

3. Print media
 - a. Textbooks
 - b. Newspapers
 - c. Journals
 - d. Bulletins
 - e. Handbill

Summary of Chapter

Instructional materials can be viewed as the object or device that conveys the essential information and skills required of the subject matter through a medium or combination of media for effective teaching and learning of the curriculum content.

Selection of instructional material is the systematic process of designing, developing and or adapting and adopting an instructional material for the purpose of facilitating effective teaching-learning process. The ASSURE model is an instructional guide for planning and conducting lessons that aim to integrate media and technology into the instructional process and also focus on the learners need. The acronym ASSURE stands for; Analyze Learners, State Objectives, Select Media and Materials, Required Learners Response, Evaluate and Revise. Classification of instructional materials is the breakdown of instructional materials into varying categories as they appeal to the learning sensory; auditory, visual and audio-visual.

Revision Questions

- I. In your own words, define instructional materials.
- II. How can you define instructional material selection?
- III. Describe the relevance of ASSURE model to the preparation of instructional materials

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