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CHAPTER SIX
LEARNING RESOURCES

Objectives:

- In this chapter, we are going to look at one of the ways of improving instruction in the classroom. This is through the means of learning resources. After reading this chapter, the reader will be able to:
  - define learning resources;
  - classify the various types of learning resources;
  - discuss the importance of learning resources;
  - identify the qualities/characteristics of a good learning resource, and thus be properly guided in the selection and use of learning resources;
  - discuss the various ways learning resources can be abused;
  - highlight how students can be used as learning resources;
  - write chalkboard and wall sheets/charts/large pictures effectively in a teaching-learning situation.

MEANING OF LEARNING RESOURCE

In chapter one of this book, we discussed the concept of instructional procedure. There we talked about the strategies, methods, activities, and materials the teacher can use to make his teaching effective and learning possible. It is all those extra "help" that are at the disposal of teachers and students for effective teaching and learning that constitute teaching and learning resources. This help may be information, ideas, formula, an individual's experience, an environmental condition or a material object. Whatever the source of the help, it is a resource for learning and also for teaching.

A learning resource is therefore, a source which provides information for required learning experience. It is a source from which useful information can be obtained by the learner for the attainment of particular instructional goals. It is anything or anybody to which or whom a learner can turn for information or help in the process of his learning or goal-seeking endeavours.

This term, learning resource is sometimes used interchangeably with such other terms as instructional materials, visual materials, audio-visual materials, teaching and learning materials, curriculum materials, instructional media, instructional materials etc. Educational technologists have tried to draw a distinction between these terms. While some slight differences may exist among these terms, one thing is common to them all: they are all used to make teaching and learning more effective.

85
Learning resources have been categorised in different ways using different criteria. They have once been classified according to the sense organs they appeal to hence, we had such categorisations as: audio materials, visual materials, audio-visual materials etc. We have also had such categories as printed and non-printed materials etc. For our purpose, we are going to make two major categories and fit in all the types in these two categories.

1. Human Resources: These as the name implies include all the human beings that function to aid learning and teaching. The teacher makes information available to learners. He also suggests alternative sources of information to these learners. The teacher is thus a resource person.

Other categories of staff in the school are also human:

- chemistry teacher can call on the physics teacher for instance to explain concepts to his students. The physics teacher in turn acts as a resource person to the chemistry class. The school bursar can assist in an accounts or business studies class.

Members of the community can also act as resources. Such people as mechanics, traders, carpenters, medical doctors, farmers etc could be used by the resourceful teacher in one way or the other to facilitate learning. The farmer for instance could assist the agricultural science teacher in his lesson on the cultivation of cassava. In effect, any knowledgeable person in the community in any specific area of learning can act as a resource person.

Students can also be used as resource persons. Students can teach and learn from one another. This can be achieved through the use of:

a. Pairs of learners: students can be paired up to work in groups and to teach and learn from each other. Pairs of learners can successfully carry out a number of learning activities and by so doing learn from each other.

b. Unusual experiences of individual learners: for example, some learners who have had unusual and relevant experiences can be made to share these experiences with other members of the class. For example, description of an earthquake, effect of oil spillage etc.

c. Special talents of individual learners: for example, leadership abilities of some members of a group/class can be fruitfully exploited for group activities.

d. Learners who can act as liaison with outside resources: they can serve as useful informers in identifying outside resources. They can also act as go-between in school and community dealings.
Material Resources: Under this category, we have a whole range of resources which teachers frequently use and are more familiar with. They could be classified as printed and non-printed and cover such range of facilities like books, documents, records, magazines, journals, libraries, archives, pictures, drawings, sketches, curvings, slides, films, life-specimen, maps, globes, templates, chalkboards, flannels etc etc. The method of using them varies from teacher to teacher and from subject to subject. A detailed description of how some of these resources can be used is given later in the chapter. A description of how others can be used will be found in Special Methodology and Educational Technology text-books.

There are other categories of resources which do not specifically fit into the above two classes. We will also attempt to describe and name them. These include natural and man-made environments. They include such places as lakes, ponds, streams, rivers, geological sites, industrial centres, historic buildings or places, museums, airports etc. These are all places that the teacher can take his students to on an excursion or field-rip. Students normally get first-hand and enriching information and experiences from such places and they use to facilitate their learning. The experiences which learners gain from visiting such sites are usually varied and very enriching. Care should, therefore, be taken in organizing such trips so that all the possible benefits to be derived from such a visit can be maximized. Such visits should also be co-operatively planned by teachers from various disciplines e.g. the biology, geography, integrated science and social studies teacher can plan a visit to a lake or pond.

IMPORTANCE OF LEARNING RESOURCES

As stated earlier, learning resources are things or people to which a learner can turn to for help in the process of his learning. It follows that they are important in the educative process. Oneyemezai (1981) reported that they result in more effective learning of factual information and skills in less time than verbalisation. The importance of learning resources in a teaching - learning situation are so much that we should just summarise them as follows:

1. They make learning more permanent.
2. They facilitate the learning of abstract concepts and ideas, that is, they help to concretize the ideas and so stimulate the imagination of students.
3. They help to arouse and sustain interest.
4. They provide experiences not easily obtained through other materials and contribute to the efficiency, depth and variety of learning.
5. They offer a reality of experience which stimulates self-activity on the part of the pupils. Thus they keep the pupils busy and active thereby increasing their participation in the lesson.
6. They make the job of the teacher easier and save from much talking; they offer him an avenue to illustrate concepts clearer and better and thereby reduce the time he will normally spend on every verbal explanation.

CHARACTERISTICS OF A GOOD LEARNING RESOURCE

Before a teacher can settle on using any learning resource, he must examine it thoroughly to see that it meets some criteria. That is, there are certain qualities that must be present in any learning resource before it can be regarded as being good. Some of these qualities are as follows:

1. Relevance to the Lesson Objectives: A learning resource must have an intimate relationship with the objectives of the lesson it is being used for. This means that the learning resource must be one that is capable of assisting in clarifying the lesson objectives and making learning easier. For instance, a biology teacher who is teaching the external features of a flowering plant, the most relevant instructional material will be life specimens of flowering plants. This will make his lesson easier for the students to understand. In the same way, a box of bottle tops will be a more relevant learning resource for a lesson in "Addition of simple whole numbers" than a chart showing addition of various numbers.

2. Usable: This also implies availability. A learning resource should be available for use as and when needed. It should be such that both the students and teachers can use easily without requiring external assistance that may not be there. For example, in some schools, television and video-machines are available in the principal's office. These may not be accessible to teachers and students. They are therefore not expected to list them as their proposed learning resource. The teacher may have access to the gadgets but there may be no electricity supply to his school. This will also render the gadgets non-usable.

3. Accuracy: A learning resource should be able to provide as much accurate information as possible. Also, the information it provides must prove to be accurate and the best available, on the subject at the time. A chemistry teacher should not, for instance, use a chart showing equations in need with the old nomenclature when the IUPAC system is now being used. In the same way, a social studies teacher should not use the picture of Bungindia as head of State when he has ceased to be one.

4. Economical: A good learning resource should be economical in terms of both the actual cost and the time the use requires. A learning resource is inappropriate if it is too expensive to acquire, and or the use requires devotion...
of much time or the assistance of a highly trained person who may not be
available. Examples of uneconomical resources include using films and overhead
projectors when charts that can do the same job are available or organizing a
field trip or an excursion to go and listen to an expert when the expert can be
brought to the school.

Suitability: The ages and developmental level of students must be
considered before a learning resource is prescribed for them. Bringing a complex
chart to illustrate something to a Junior Secondary School class may defeat the
purpose if most of the things represented on the chart are incomprehensible to
them. Suitability also implies that interest should be considered. Very young
children like bright colours. Charts meant for them should therefore be done in
very bright colours to attract their attention.

To cater for individual differences, it is advisable to use a variety of learning
resources in any particular lesson. This is because, there can hardly be any single
resource that will be suitable for the various individuals present in a class.

Clarity: A good learning resource should be "visible". This implies that
every member of the class should be able to see, hear or touch it. If for instance
the teacher is using a chart or a diagram, it should be such that everybody in the
class (especially those at the back) should see it without straining their eyes. In
the same way, a recorded lesson should be heard by everybody no matter where
they are sitting.

Abuse of Learning resources:

Sometimes teachers and students end up abusing learning resources instead
of using them. They do this in a number of ways.

One such way is through the use of learning resources as “time-fillers”, or
merely to keep the students busy. This usually happens when a teacher has not
adequately prepared for his lesson, or when he has other things to do. He may
take into the class, for example and ask the student to read chapter ten of a
textbook. If he has not taken out the time to tell the students what to
look for, or had not guided their reading, such a teacher is merely using the
book as a time-filler.

Another form of abuse is in the use of invited speakers as resource persons.
Sometimes, the teacher might just invite his friend as a resource person to come
talk to his students. This talk though important may be unrelated to the
topics the students are studying at the time. This will therefore make such a
resource a waste of time. The students will not know how to fit in the talk with
their study.
Some teachers have the habit of using the same field-trip every year. This is a form of abuse of learning resource especially if the trip merely provides general experience rather than some special experience pertaining to a planned unit of work or instruction.

Teachers are therefore advised to be on their guard so that learning resources will be properly used and not abused. Once learning resources are abused, they fail to fulfil the functions expected of them and instead of facilitating learning, they will now hinder it. This is because the students may now fail to see when a new and interesting resource is being introduced.

US\$ OF SOME \$OM\$E COMMON INSTRUCTIONAL MATERIALS

The Chalkboard:

This is the oldest and most common instructional material available to almost all teachers. It was formerly called the blackboard but the term is no longer true as some boards come in other colours. The chalkboard is a quick way of putting down words, drawings or simple line diagrams during a lesson or a discussion. It is also easy to add or remove words, drawings and diagrams from the chalkboard. Some of the common uses to which resourceful teachers put the chalkboard are as follows:

a. To illustrate ideas, that is, showing symbolic diagrams. When a teacher is finding it difficult to put his thoughts/ideas into words, the chalkboard comes in handy for a quick and efficient sketch that will illustrate the idea.

b. To show relationships of ideas in a developing sequence. By writing and sketching on the chalkboard during a lesson, a teacher can emphasise what is important and omit the trivial and accidental. Students are thus enabled to see the main points and the sequence of events. For example, when the topic is the life cycle of a unicellular organism, the teacher will be able to sketch what happens at each stage in the life cycle and possibly write down an explanatory word or two. This will also serve as a good summary of the lesson.

c. To record new words: As the teacher encounters new words during the lesson, the chalkboard offers him a good opportunity to write them down so that students will get used to their spellings, pronunciations and generally take note of them.

d. The chalkboard can also be used to show relationships diagrammatically, especially if such relationships cannot be easily verbalised. For example, the relationship between the various phases of a Nitrogen cycle.

In using the chalkboard, the teacher should aim at simplicity of ideas and drawings, and clarity. He should avoid unnecessary details so that the students...
will appreciate what is being illustrated. The teacher should aim at writing boldly and legibly so that every student can see. Coloured chalks, capital letters, underlining and varying spacing can all be used to draw attention to important points. The teacher should however avoid using faint colours that will not be legible to those at the back. As much as possible, colours should be used in such a way that they resemble the real thing. For example, green for leaves and yellow/red for flowers. It is advisable that the teacher occasionally goes to the back of the class and to the other odd corners to appreciate what he has written on the board.

Charts/Wall Sheets/Large Pictures:

These may also be in form of posters. They draw the attention of the audience without extra help because they are large and have bold signs. The use of charts/wall sheets and large sheets in the teaching learning situation have a lot of advantages.

When they are properly prepared, they are economical in the long run. They contain more detailed information than the chalkboard sketches. They lend themselves to individual and group study. Students can get information from well-prepared ones without much help from the teacher. Their application in the classroom require no extra gadgets or machinery as they can be hunged on any wall or chalkboard once there is a nail or cello tape with which to stick them. They can also be used in any subject area to present almost all subject matter ranging from simple alphabets to complicated relationships and processes.

Their application in classroom teaching and learning is almost limitless. They are used for class or group teaching. In this case, the teacher uses them to convey his message to the class. This is because almost all aspects of the lesson can be re-presented on the chart so that the teacher's explanation is further enhanced by the students' ability to see a pictorial presentation of what they are being told.

They can also be used as background material to create a conducive atmosphere for learning. By showing some appropriate pictures, the teacher can motivate his students and get them ready for his lesson. They also serve to arouse interest for any lesson or topic.

Some of them can be used as reference materials. Some charts/posters are so detailed that the teacher can also refer the students to them after his teaching for additional information. In that case, the chart/picture can be pinned up after the lesson for the students private use.
They can also be used for revision purposes or as a lesson summary. A chart showing reproduction in "Spirogyra" can be used to end a lesson on "Reproduction in Spirogyra." Such a chart will be able to summarise the main points of the lesson and focus students' attention on what the teacher wants them to get.

Charts and Wall sheets can also be used together with models of specimens for both revision and reference purposes and even for the main lesson. For example, in a biology class, insects can be pinned on cardboard sheets and their names, characteristics and life history pinned on them for use by both teachers and students. These help to make the lessons clearer; or in a revision class, they facilitate recall of information the students may have forgotten. Charts/Wall sheets and large pictures are thus important learning resources that can be locally produced by the teachers and used in all subject matter areas.

SUMMARY
In this chapter, we looked at what learning resources are. We identified a learning resource as any thing or person to which a learner can turn to for information or help in the process of his learning or goal seeking endeavours. Two major categories of learning resources were identified - these are human and material. Human resources include the teachers, the students, other school personnel and all knowledgeable and interested adults in the community that the teacher or learners can call on to help them. Material resources include all kinds of things that are used to facilitate learning. They include charts, diagrams, radio, T.V., ponds, lakes, factories, markets etc.

The importance of learning resources were highlighted and the qualities of a good learning resource identified. These include relevance to the lesson, economical, usability, availability and suitability to the learners and for the lesson objectives. The ways in which learning resources can be abused were also highlighted. The chapter ended with a discussion of how teachers and students can use two major common resources - the chalkboard and charts or wall sheets or large pictures.

STUDY QUESTIONS
1. (a) Explain the term 'learning resources'.
   (b) What are the main categories of learning resources?
   (c) In what ways can students be used as resource persons?
2. Discuss the importance of learning resources in a teaching learning situation.
3. What criteria will you use to assess a given resource before adopting it for use in your class?
4. Learning resources can be easily abused by both teachers and learners. How and in what way can you guard against these abuses.

5. Discuss in detail, the use to which students and teachers can put
(a) the chalkboard
(b) blackboard-sketchboard pictures.

REFERENCES


