

Unit 10: Educational Technology

INTRODUCTION

Educational technology is increasingly recognised as an important part of teaching. Hence, it finds its place in the curriculum of most teacher training and management courses. Modern curriculum development tends to adopt mass media approaches to learning so that competency in the use of educational technology is essential for the improvement of teaching and learning in schools. Inspectors need to be informed of the importance of educational technology in order to give proper assistance and guidance to headteachers and teachers.

LEARNING OUTCOMES

By the end of this unit, you will be able to:

- define educational technology
- describe the roles of educational technology in improving learner achievement
- identify the relevant technology in education
- identify sources and finance for educational technology
- explore operations and maintenance procedures.

DEFINITION OF EDUCATIONAL TECHNOLOGY

Educational technology is a process of teaching and learning using machines and equipment. It also refers to any teaching conducted or supported by technical aids like audio-visual materials, projectors and recording equipment.

Activity 10a

In your own words, define the term 'educational technology'. Where in schools do you see the use of educational technology of growing importance?

COMMENTS

As inspectors, you need to know the meaning of educational technology and its importance in modern educational institutions so that you can give proper guidance to headteachers and teachers. It would also be an advantage if you were competent in the use and operation of some of the modern day technology.

THE ROLE OF EDUCATIONAL TECHNOLOGY

Educational technology is taking the centre stage in most educational institutions and proving to be very useful in enhancing the improvement of the learners performance.

Some of the roles of educational technology are:

- improvement of teaching and learning
- facilitation of learning and teaching of disabled children

- exposure of teachers and learners to the modern educational technology
- linkage of theory to reality
- establishment of technology in administration of schools to improve efficiency.

Although educational technology has advantages, there are problems that have been experienced in its use, such as:

- high cost of materials and audio-visual equipment
- difficulty in finding satisfactory suppliers
- problems of supplying schools in the rural areas with electrical equipment
- the complexity of some audio-visual equipment e.g. computers
- lack of practical training in the use of the electrical equipment
- difficulty of adapting them
- maintenance problems.

Activity 10b

- (a) Describe the importance of educational technology in schools.
- (b) What problems do teachers encounter in the use of educational technology and how can you as an inspector help them overcome problems?

COMMENT

More software for educational technology needs to be produced in the countries where it is actually used because much of that produced elsewhere is inappropriate for use in Africa. However, it can be adapted for local use. Inspectors should acquaint themselves with available technology and assist in finding ways in which teachers can acquire competency in the simple operational skills and techniques as well as the proper management of this equipment.

IDENTIFICATION OF RELEVANT EDUCATIONAL TECHNOLOGY

Educational technology can be divided into the following categories:

- Audio Media
e.g. radio
record player
tape recorder
- Projected Media
e.g. screen
overhead projectors
slides
television
computers
filmstrips
films
- Teaching Machines
e.g. video camera
video tape recorder
- Computers and Information Technology

Activity 10c

- (a) List the relevant teaching equipment that is available in your area and think how you can assist schools to acquire it.
- (b) What factors should be taken into account when procuring technical equipment for schools?

COMMENT

Many schools in rural areas are disadvantaged when purchasing and using electrical equipment because of lack of electricity. Even if available, the majority of teachers do not have the appropriate skills to operate this equipment.

SOURCES AND FINANCE OF EDUCATIONAL TECHNOLOGY

Electrically operated equipment is very expensive to acquire and therefore, it is important to be careful when purchasing this type of equipment. It is advisable to shop around before taking the final decision.

The following are some of the sources from which they can be acquired:

- Ministry of Education
- Media production centres
- Donor agencies
- Educational resource centres
- Commercial suppliers
- School broadcasting unit
- Schools
- School community
- Non Governmental Organisations (NGOs)

Activity 10d

- (a) Identify possible sources in your area where equipment (educational technology) can be acquired.
- (b) As an inspector of schools, given the financial constraints, what advice would you give to headteachers in the procurement of the equipment?

COMMENT

Educational technology is considered an important innovation to be used in schools. Its importance centres around the promotion of effective teaching and learning in schools. Effective use of educational technology promotes learner centredness to the extent that the teacher becomes more of a facilitator than a disseminator of information.

OPERATION AND MAINTENANCE OF EDUCATIONAL EQUIPMENT

In operating and maintaining educational equipment, the following should be considered:

- adequate training of teachers

- management of equipment
- maintenance of equipment
- sustainability e.g. replacement of worn out equipment
- security and safety of equipment

Activity 10e

As an inspector in charge of certain schools, you have received a donation of equipment to be distributed to all the schools. What steps would you take to ensure that the equipment is being used and maintained properly?

COMMENT

The inspectors have to think globally but act locally. When receiving a donation to be distributed to schools, the inspectors should explore its sustainability, maintenance and user friendliness e.g. if the donation is from Japan, inspectors have a duty to satisfy themselves about the serviceability of the equipment locally.

SUMMARY

This unit has tried to address the importance and problems involved in the use of educational technology. In order to use this equipment effectively in teaching, adequate training should be provided.

More audio-visual centres need to be established in many SADC countries to assist teachers in the use of modern equipment.

REFLECTION

Having gone through the content and activities of this unit, reflect on your experiences as an inspector and identify ways in which you would advise teachers to use educational technology to improve teaching and learning. Which skill do you need to develop for yourself in order to use educational technology?

REFERENCE

Farrant, J.S. (1991) *Principles and Practice of Education*, Longman, UK