

CONSIDERATIONS FOR SELECTION AND UTILIZATION OF INSTRUCTIONAL MATERIALS FOR EFFECTIVE DISTANCE EDUCATION PROGRAMMES

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Abstract

Distance education is the system of education for teaching adult and youths who are not privileged to attend the formal school system. It is a situation whereby the teacher and students are separated in time and space and the medium of communication allows for interactivity between them. Though distance education has been in existence for more than 100 years, the medium has changed from pencil and paper correspondence courses to real time internet courses. Electronic mediated courses use telephone lines, cables, satellite, and microwave networks to transmit voice, video and data. Importance of suitable instructional materials cannot be over emphasized, hence this paper discusses the need for teachers in this area to be well equipped with professional skills and personal attributes to help them in selection and utilization of instructional materials. Students' characteristics and qualities were also touched and the types of instructional materials needed were listed and the paper concluded on the indispensability of appropriate selection and utilization of instructional materials for effective distance education programmes.

Introduction

Distance Education refers to various forms of educational activity in which learners are physically apart from the teacher or the teaching Institution for much of the teaching and learning process (Rumble, 1989). It is the feature of distance education that distinguishes it from conventional classroom-based education. Distance education places greater emphasis on guided independent study on the part of the learners, without eliminating the possibility of some face –to face contact, either between the teacher and the learners, or the learners themselves. Hence, the more face-to face contact there is in distance education programmes, the 'less distant' they are called, and conversely the less face-to face contact there is in such programmes, the more distant' they are called. In this manner, certain forms of computer-based and computer-managed instruction can be considered distance education activity.

Qualities of Distance Education Teachers and Students

Distance education is an indirect form of education where the teacher and the students are separated both physically and in time span. The teacher's transmission of the study materials is separated from the students' acceptance. The transmitted materials between them consist of printed and electronic media and those technologies useful for distance education. Computer and audio-conferencing replaces face to face group meeting, telephone and e-mail replace visits. It can be synchronous or asynchronous, therefore calls for unique qualities for both the teacher and students to cope with the activities of the processes.

The Online Teacher

For one to serve as distance education teacher, he/she must be certified for the appropriate grade level, knowledgeable in his subject area, and trained in effective distance education strategies. He should be responsible for knowing the subject matter, preparing lesson plans and producing an instructional module or courses, selecting instructional materials, delivering instruction effectively on camera, determining the degree of student interaction and selecting the form of distance evaluation or assessment. Above all, he must be competent in the use of ICT equipment which is the main medium of interaction in distance education.

Distance education teacher has personal qualities that help in boosting professional qualities in order to work collaboratively and cooperatively with students in drawing course contents, selection and utilization of instructional materials for educational needs of the students. They include:

1. Empathy and patience
2. Flexibility and openness to change
3. Good presentation skills
4. Collegiality
5. motivating
6. Impressive
7. Inspiring
8. Timely intervener/guidance counselor

9. Accessible to avoid communication gap.

The Online Student

Though characteristics of adult education in general and distance education in particular make them unique, there are qualities one must possess to fit into distance learning programmes. Good and successful tutoring in distance learning results in a higher completion and success rate for students. The expected qualities of distance education students include:

1. Literacy: This type of education system is meant for literate youths and adults for upgrading of knowledge and professional skills. It is not meant for stark illiterates. Since tutorial delivering system and materials is separated from acceptance, certain literacy level is needed for student to read, comprehend and participate fully in the programme.
2. Independent Learner: He should be able to study independently without somebody pushing him.
3. Good time manager:- He should be able to manage his time judiciously for him to meet up with scheduled period of studies and assignments. He should not be a procrastinator.
4. Excellent and skillful in reading and writing: For him to be able to communicate with his teacher and peers, in online class, he must be skilful and fluent in reading and writing.
5. Knowledge of Technology:- He should have basic knowledge of word processing, online communication, internet research, and fundamentals of Excel and PowerPoint.
6. Good at setting Goal: strong online student keep his goals firmly in mind. It is important for him to always remind himself why he is taking the course, so as to be excited and focused.

<http://www.worldwidelearn.com/education-articlesdistance-learning-success-htm>

Teaching and Learning in Distance Education

Teaching has traditionally been defined as the purposeful imparting of knowledge or skills to an individual or group. It is also viewed as a range of activities aimed at helping the learner to acquire knowledge, attitudes, values, beliefs and skills, in which case the teacher plays the role of a facilitator (Schlosser, et al (1994). Distance learning is an excellent method of teaching adult learners, because of the competing priorities of work, home, and schools. Adult

learners despite a high degree of flexibility, require help in formulating their learning objectives, identifying sources of information, and measuring objectives. The structure of distance education gives adults the greatest possible control over time, place and pace of education. Independent study is an important foundation of distance education. It suggests that successful teaching-learning can take place even though teacher and learner are physically separated during the learning process. This separation can occur in several ways depending on the nature of the course content and delivery medium.

Distance education has a tradition for which it is originally known for (correspondence courses) as coursework. Innovations in technology have brought in different media through which distance teaching and learning can take place such as telephone lines, cables, satellite and microwave networks to transmit voice, video and data. Most of distance education programmes employ a combination of audiovisual media to facilitate learning. (McNabb,1994). Successful distance education system involves interactivity between teacher and students, between students and environment, and among students themselves as well as active learning in classrooms. Interactivity takes many forms of goals. It is not just limited to audio and video, or solely to teacher- student's interactions, but also with instructional materials which normally carry the message.

What is instructional material in Distance Education?

Instructional materials in distance education are the different media or materials which the distance education teacher employs to promote and facilitate his teaching for achievement of the stated objectives (Okafor,2006). According to Nzeneri (2008), it is anything (human effort, hardware, software, improvised material(s), etc. used to satisfy the educational needs of the learners. He described instructional material as an instructional device or technique or resource person (i.e. an expert) brought into teaching and learning interaction to facilitate sharing of experiences, knowledge, skills, attitudes and values. He sees instructional materials in distance education as communication media between educational agents and the learners.

Quoting Dave, Nzeneri (2008) also opined that instructional materials in distance education involve audio-visual media which covers resources for mediating between places, persons, groups, societies at available distance from one another. Instructional materials however are alternative channels of communication used by distance educators to concretize teaching of subjects, problems, concepts and educational objectives to ensure better understanding. The most important aspect of any instructional material depends on how it effectively communicates meaning between the educator and the learners.

Instructional materials in distance education can be classified into durable and non-durable materials. Durable instructional materials are those ones that last. They include hardware equipment and high-technology (hitech) materials such as over-head projectors, films, slides etc), video-recorder, television sets, radio, including all materials for recording, receiving, projecting and transmitting instructional messages.

Non-durable are software materials used to transmit and project materials to audience through hardware. According to Toby (1991) they include:

1. Receptive materials such as blackboard, bulletin boards, papers and chalk.
2. Pictorial and graphic representation as posters, maps, charts, diagrams, cartoons etc.
3. Projected picture such as film trips, transparencies, motion pictures etc.
4. Auditory materials as records, tapes, radio broadcast, etc.
5. Audio-visual aids in combination, such as sound motion pictures, television and sound, etc.
6. Representations and Relief Displays as models, objects, paintings, drawings and specimens.
7. Print materials as textbooks, newspapers, magazines, journals, pamphlet, graphs, charts, maps diagrams etc.

The importance of instructional materials in teaching and learning cannot be over-emphasized.

Importance of Instructional Materials in Distance Education

Instructional materials play important role in the teaching and learning in distance education as they help to stimulate thinking, making learning interesting, exciting, enjoyable and concrete. They encourage both the teacher and students to be active participants in the learning process. They avail the teacher opportunities to use imagination and creativity to help students learn skills they need to improve in their different fields.

However, for these roles to be achieved, the teacher has to match the instructional materials with the goals of the teacher, the students and the immediate community. Therefore, before a teacher chooses particular instructional materials, he must have the ability to manage learning encounter adequately.

The role of instructional materials in teaching and learning includes making the learning real, practical and fun through seeing, hearing, discovering and doing. Seeing what things look like and how they work is more interesting merely listening to lecture. Discovering, seeing and doing things, as well as hearing, feeling (especially for blind students) and discussing make learning exciting.

They encourage students to experience things for themselves through observation, exploration, understanding and application, thus making learning more meaningful, useful and adventurous. They can bring teaching and learning encounter to life.

Management of Learning in Distance Education

For a teacher to manage learning effectively and efficiently, he must have sound knowledge of the subject matter as well as groomed in the method of teaching so as to select and utilize instructional materials suitably in order to attain the desired goals. This is necessary because when a teacher teaches unfamiliar topic, his teaching skill falls. He resorts to reciting facts from a text book, teach for rote learning, discourage questioning and avoid experimentation or demonstration.

Learning is noticeably achieved only when the goal is achieved. The goal of distance education is to provide education for adults not privileged to attend regular school system

due to engagements and certain limitations for improvement of their professional skills and updating of knowledge levels in dispersed geographical locations via multidimensional media and visual classroom. Goal is a standard or a parameter for measuring whether learning has occurred or not. Teacher's goal should not conflict with the goal of the school or the students out rightly rather his goals should be expansive, noble, admirable and consistent with the nature of the subject matter.

Therefore, a balanced teacher with good classroom management must and should be able to encourage students with suitable instructional materials to develop interest in the natural world in different discipline which results from practical skills and experiences one encounter in everyday life. He must know "that, how, what and why" in the selection and use of instructional materials in the teaching and learning encounter be successful.

Careful selection of print, audio, graphics and video materials, as well as hands on hardware training and chance to network is important on the part of distance education teacher. Sufficient training or field experience enable him to be effective and use technology successfully in visual classrooms. Proper training will help him to change his methods of teaching and give more attention to advanced independent studies and following activities (US Congress 1989,pii). Important questions to be asked while selecting and using instructional materials include:

1. What purpose are they meant to achieve?
2. When do you use them?
3. How do you use them?
4. How do you evaluate the usage?

Utilization of Instruction Materials in Distance Education

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The distance education teacher has to appreciate that the students may find it difficult to see things in a demonstration that the teacher find obvious v (White, 2002). Therefore utilization of instructional materials requires more skills than merely directing the students' attention. It requires the teacher to arouse the students' interest in the topic, and to judge from their initial knowledge what they are likely to see in the demonstration.

Learning is much more than the transmission. It involves the construction of meaning. The meaning a person constructs depends on what the person already knows. Therefore different people know different things, and they often construct different meanings from the same information. These are called 'alternative conceptions' which are particular for

distance education teachers. Distance education teachers need to know that their students are likely to form different meanings from visual classroom encounter; to know what the most likely alternative will be; to be able to frame their teaching accordingly and to know how to check on the meanings that their students do form. For adequate utilization of instructional materials, the distance education teacher needs many skills. He has to choose suitable goals, from knowledge of what students think they want and from knowledge of what the community and school system expects. The teacher must be able to mould the student's goals. Therefore teaching calls for advanced skills.

Considerations for Selection and Utilization of Instructional Materials

1. Relevance to instructional objectives
2. Practicability
3. Media Characteristics- portability, accessibility, availability etc.
4. Learners' characteristics
5. Simplicity
6. Teacher's capability
7. Cost

1. **Relevance of Instructional Objectives:** Educational needs of distance learners varies, therefore, care should be taken to cater for individual differences of the learners for maximum achievement of learning objectives.
2. **Practicability:** Working within the limits of practicable and economically possible, each instructional material chosen should give the learners chance for independent practical studies.
3. **Media Characteristics:** Portability, accessibility, availability etc: Care should be taken to choose instructional materials portable, accessible and available for the learners to enhance learning interest and success.
4. **Learners' Characteristics:** Learners' characteristics include age, location, educational background, occupation, learning needs, etc. Students of distance education are

assumed to be adults with differences in personalities, instructional materials should be those that they can use comfortably and understand.

5. **Simplicity:** The instructional materials should be simple to operate and comprehend. Distance learners are mostly independent in learning, and succeed more with simple instructional materials.
6. **Teacher's Capability:** Teachers in distance education should be ICT friendly. They should be able to operate ICT equipment with ease so as to enhance the quality and successful distance education teaching and learning.
7. **Cost:** Instructional materials to be selected should be cost-effective to the learners. Poverty is one of the factors that hinder effective teaching and learning in distance education. Some of the distance learners belong to low income group and may find it difficult if not impossible to cope with costly instructional material.

Characteristics of learners are very important in selection and utilization of instructional materials for distance education. These include: age, culture, socio-economic background, interests, experience, educational level and familiarity with distance education. Distance education students choose it for convenience because of time, distance and family and social responsibilities. Therefore distance education deals with collaboration of teachers and students efforts to succeed if diverse students' characteristics should be considered when choosing instructional materials.

Summary/conclusion

Although the application of new information and communications technologies is growing, print, audio and video cassettes, and the telephone are still the most widely used technologies (Willis, 1994). Instructional materials in distance education include audio, visual, and audio-visual, and printed materials.

- Visual materials are: pictures, photographs, maps, diagrams, charts, symbols, graphs, posters and drawings.
- Audio Materials: Radio and telephone

- Printed Materials- Text books, magazines, journals parochial newspapers posters, pamphlets and bibliography. Because of diverse characteristics of learners, it require the cooperative of students and the teacher to select suitable materials for successful achievement of the goals.

Schlosser and Anderson (1993) identify new skills which teachers must learn as they assume the role of distance educators as follows:

- Understanding the nature and philosophy of distance education
- Identifying learners' characteristics at distant sites.
- Designing and developing interactive answer are to suit each new technology.
- Adopting teaching strategies to deliver instruction at a distance
- Organizing instructional materials in a format suitable for independent study.
- Training and practice in the use of telecommunications systems.
- Becoming involved in organizations, collaborative planning and decision – making.
- Evaluating students' achievement, attitudes, and perceptions at distant sites.

Suggestions

For more appropriate and effective selection and utilization of instructional materials, the distance educator teacher must observe the following rules:

1. He must use words that are simple
2. The instructional materials must be neat and presentation must be interesting.
3. He should test the instructional materials before the actual presentation during the learning encounter
4. During presentation, the teaching materials should be placed appropriately to the advantage of every member of the class.
5. Always use attention-calling devices like pointer, arrows, diagrams, key etc. where necessary.

6. Present the instructional materials at the right time.
7. Avoid distractions while using the materials
8. Instruction materials should be suitable for the target audience and cater for individual differences.
9. Use varieties of ideas to hold students' attention; they should be specific and clear.
10. Use adequate colours, pictures, letter contracts, and adequate spacing
11. Do not present too many materials at a time.

Finally, always evaluate the achievement of the objectives for which the instructional materials are meant for.

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