A Window which lets in Light: The Importance of Selecting and Preparing Instructional Media in Tertiary Education

Itayi Mariko
Midlands State University
Private Bag 9055
Gweru
Zimbabwe

Abstract

Using instructional media without prior thinking of the implications to learning is like shooting in the dark. Effective teaching and learning requires consideration of various factors among which there is class size, composition and learners' backgrounds. This paper discusses these issues and how the lecturer should cautiously consider these in selecting and preparing instructional media in a tertiary institution set up. Selection and preparation of instructional media should facilitate teaching and learning, help the lecturer to clarify and emphasise taught concepts and to motivate learners through arousing their interest in the content among other issues.

Keywords: Instruction, Instructional media, curriculum, content

1. Introduction

Media selection and preparation is a crucial component of teaching in any educational setup. Consideration of instructional media is important even when it comes to tertiary institutions if the teaching process is to be fruitful. This paper seeks to identify and discuss the various factors that come into play in instructional media selection and preparation.

According to Petty (2009:375) "instructional media encompasses all the materials and physical means an instructor might use to implement teaching to facilitate students' achievement of instructional objectives." This definition goes hand in hand with Reiser and Dick (1996) who define instructional media as "materials and resources which a classroom practitioner may choose from in order to facilitate teaching and learning and to achieve set instructional goals." Both definitions emphasise the idea that a lecturer might choose to use physical and material means that might help them deliver curriculum content in a better way or which might enhance students' understanding of concepts taught during the teaching- learning process. This goes to show that when making instructional media decisions, there are several considerations to make.

2. The Importance of Selecting and Preparation of Instructional Media

The age-old dictum that says a picture is worth a thousand words is a valid assertion when considering instructional media as it is meant to enhance understanding and interest in the teaching- learning process through use of various materials rather than presenting abstract ideas. It makes curriculum content more real, more 'tangible' and easy to grasp. Instructional media has been classified into two categories namely the traditional forms like the teacher, chalkboard, textbook, handouts, charts, audio and video as well as new forms like the computer, internet resources, conferencing, e-learning etcetera. From these resources, lecturer should select media with the aim to gain students' attention, develop their interest in the subject, accommodate different learning styles, modifying the learning environment so that it does not become monotonous, enhance students' understanding of taught concepts as well as help the lecturer to explain content more clear. Also, the lecturer needs to develop essential abilities or skills to deliver content to learners of different intellectual performance and this needs careful consideration of media to use to ensure effective teaching and learning. However, selection of media cannot be haphazardly done   but the instructor should ensure that the selected media suits the curriculum materials, that is, subject matter. No one medium is meant for a particular subject but the lecturer can use media to complement each other when delivering course content.

The most important issue is the task to be done, learner traits, content and teaching/ learning environment/ setting so that media becomes appropriate for the learning situation (Clark and Salomon1986).

The most traditional instructional medium is the lecturer and according to Sabtu (2010) remains the primary learning resource. However regarding the teacher or lecturer as a medium is a contentious issue as some believe that instructional media is what the teacher uses not the teacher herself/ himself. All the same, each medium should be selected and prepared if learning is to be effective. Taking the lecturer as a medium implies that she/ he should prepare herself/ himself if she/ he decides to deliver a lecture. She/ he should consider class size so that her/his voice is well projected to reach everyone in her/his audience. If the class is too big then the lecturer might consider using a microphone. In some tertiary institutions, for instance, there are big classes, especially in common modules where one class can have two hundred or more students. Such a class would need the lecturer to use devices that project her/his voice so that every student benefits from the lecture through hearing what is said. Also, the lecturer should be self prepared by being well read. The lecturer/ teacher should be well versed with the content she/ he is delivering so that she/he is able to relay the information in a meaningful and organised manner so as to cater for every learner type. Some learners are slow to grasp new information so the lecturer should be prepared to help but this can only happen if she/he knows the content of the subject well enough to reduce it to "digestible chunks" of knowledge, giving adequate background detail that leads to a better understanding of the subject. Smith and Ragan (1999) assert that "choice of media requires one to examine the demands of the instructional situation first and then decide which medium or combination of media will best meet the needs of the situation." The lecturer as a medium is best in most situations because it allows interaction where the student can ask for clarifications and the lecturer in turn can modify content in relation to the learner needs. This goes to show what Smith and Ragan (1999) and Laurillard (2000) say, that the lecturer is an indispensable medium but should not be used in isolation. Though the medium has several merits like the lecturer having background knowledge of individual learners' capabilities and prior knowledge as well as the availability of room for the lecturer to refine their descriptions and explanations, combining the lecturer with other forms of media will yield better outcomes in the teaching- learning situation (Laurillard, 2000).

When selecting and preparing instructional media, there is need to consider class size. This is of paramount importance because if a lecturer decides to use the chalkboard or projector, for example, the number of students should be reflected on. Visibility of the medium is important and thus it should be placed where all can see. This means that media like charts, pictures, graphs, video clips etcetera, should be chosen with relation to class size as each student should have the opportunity to see and analyse the medium. When it comes to students' learning styles, the above example caters for learners who understand better through their sense of sight. They visualise the phenomena under study and they feel they have direct experience with an event so effective learning occurs to them if visual aids are used. However, in a tertiary institution, the lecturer should not select such forms of media (visual) without consideration of the class composition. The class may have visually challenged students who might not benefit from the visual material used. This means that other forms, like the lecturer describing and explaining, would have to be used in combination. Visuals should be clear, interesting and in good condition. They should also be of a suitable size for the class, must be relevant to the topic under discussion and illustrate the specific point being taught (Petty, 2009). Analysing class composition when selecting media for instruction is also important so that the media used does not conflict with the students' interests, meaning to say in tertiary institutions, students come from various cultural and religious backgrounds so this has to be taken into consideration to avoid insulting or offending students. Also, institutions have their own values and norms so the lecturer has to make sure that the media she/ he uses does not go against the institutional norms and values.

Also, with regards to class composition, the lecturer needs to assess learners' backgrounds and experiences. Media selection can help the lecturer to bring the learners to the same level of experience through exposure to what is being taught as media affords an opportunity to make things known in abstract form to become concrete or more real. The lecturer should thus help learners to move from a low degree of abstraction to a higher degree of abstraction through use of instructional media, for example motor skills to intellectual and cognitive skills.

Some students understand concepts better when they learn through experiencing, touching or doing (tactile learners). These need practical activities and role play so that content is grasped.

Again like in the above example, considering class composition is vital, for example, if the class has some physically challenged students who cannot carry out the practical tasks, the lecturer can make sure to place them where they can observe what is being done for them to benefit as well. This implies that selection of media should not segregate portion of the class but if it does so, an alternative to cover for the weaknesses should be used in conjunction.

Some learners need to listen for them to learn so audio media like tape recorders can be used. However, audio-visual media is a better option because it provides students with the visual channel to focus their attention on. Hodgson (1984:110) says visual aids/ media "enables the student to see the subject from a particular point of view... to see how it makes sense of the world." Popert (1980: 124) in support of this assertion says, "The student needs the means to conceptualise and 'capture' the world... media provides a formalism in which we capture our otherwise too fleeting thoughts." This therefore means that visual media is significant in the teaching- learning process. However the audio form is equally important especially with the visually challenged students, but for those who can see well the audio complemented with the visual becomes a bonus.

Another important factor to consider in selecting and preparing instructional media is the availability of resources. Lecturers or teachers should select media that is readily available so that they do not get stranded when they fail to get access to the resources they need. A lecturer should have an alternative in place so that if the selected medium fails to work or is not readily available, then the alternative form should immediately come to the rescue. Also it is important to use time profitably and thus media used should fit into the available time of the lecture/ lesson. Time is especially saved when the lecturer has the technical know-how, that is, have knowledge to operate the medium. Failure to operate the media leads to frustration of the lecturer and time wastage. If the lecturer spends most of the time trying to make the chosen media work then time is lost. In relation to this concern, students should be notified in advance of the intention to use a certain form of media so that they are prepared. This might help the lecturer when they encounter problems with the media (especially new technology) as some students can even assist. Also preparing students is important so that they in turn prepare for that media type considering the fact that students come from different backgrounds, for example, when using video conferencing, the lecturer has to explain what is expected of the learner so that they can be fully involved and participate. Even as the lecturer is using the media she/he should give constant explanatory information so that students follow the procedures. This is supported by Arguilla (1999) when she says there is need for mediation to ensure understanding.

3. Conclusion

All in all it can be concluded that when selecting and preparing instructional media it is important to ensure that the media leads to a better understanding of concepts and relates to students' experiences and is at their level of comprehension. Selected media should also be accurate and give up to date information. In summation, instructional media should shed more light to curriculum content and increase understanding of content. The whole point of instructional media is to improve the quality of teaching and learning and therefore there is need to select and prepare media that meet this goal.

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