Design and Production of Instructional Materials for the Library

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Abstract

It is necessary and important for librarians to be able to design and produce some kinds of visual media to enhance effective dissemination of information. The kinds of design principles and production techniques described in this paper are those that librarians and teachers can carry out themselves. Seminars or workshops should be organized by medial specialists to train them to master well the techniques and skills.

Keywords : *Instructional materials; Educational technology; Librarian; Visual media design; User aids*

Introduction

Education is perceived in developing countries as the main instrument of mobilizing their resources. In a bid to tackle the country's educational problems, Nigeria's National Policy on Education, for an example, states that products of the technological age are to be used for the development and improvement of education as well as for the expansion of instructional techniques. In pursuance of this policy and in response to the government's call for self-reliance in Nigeria, the National Educational Technology Centre (NETC) in collaboration with the states Ministries of Education and the country's Universities have been organising National Festivals of instructional materials. The annual Festivals mark milestones in the development of educational technology in Nigeria.

The objective of this paper is to put into focus the designing and production of instructional materials for optimum utilisation in all agents of education, be it in classrooms, libraries, laboratories etc.

Instructional Materials

Instructional materials/aids which could be classified into five significant groups viz: realia, still visual, recorded auditory, motion visual and electronically transmitted resources are measures to make the subject matter more meaningful, concrete and practical. They are aids to relate the concepts and principles learnt to day-to-day activities.

Planning and Designing of Instructional Materials

This paper is concerned with the guidelines for simple design and production of instructional materials to give the librarians necessary direction to embark on designing and producing some of their own visual and audio media for library use. Aina in his paper, "The Librarian's Role in the use of Educational Technology" discussed how instructional materials facilitate and activise teaching in classroom as well as in libraries.[1]

In graphic design, the first objective is to attract attention and interest to picture, symbol, colour, shape etc. and they must be of sufficiently large size to be readable at a distance. For this reason, a lead visual or caption must be used to introduce the concept being used. When both a lead caption and a lead visual are used, they are referred to as lead elements and they dominate the presentation. The designer must remember that he is trying to help the learner think creatively so pictures produced must help the learner recall experiences, aid detailed studies, correct misconception, build new experiments, give meaning to word symbols, demonstrate a process and help form value judgement.

Visual media incorporate any or all the following elements: words, abstract symbols, colours and pictorials. It is vital to determine how the elements would be placed so that the message would be arranged in a pleasing manner. This is necessary because "well-designed visuals ..... not only help **assure** learning of the subject matter but also provide good models for students' own creative project", according to Heinich et al.[2] Anyone who has got an idea of what visual media to produce would make various sketches (thumbnail sketches) of what the layout of the visual should look like and chooses one of them for development. The appropriate position of words, illustrations, pictorials are determined on the design. Various design principles such as simplicity, harmony, colour and emphasis should be considered.

1.Simplicity: There is no need to crowd visuals with too much information. Visuals are used only to highlight key points.

2.Harmony: Ideas incorporated into the design should provide for continuity. The visual should appear to hold together as a unity as also asserted by Sleeman et al.[3]

3.Colours: Colours are used to evoke emotional feelings and to bring about realistic description of our message. For an example when one tries to depict vegetation, green colour would come to mind. However many colours should not be used on the same visual. How can the librarian use colour judiciously? Heinich et al. provide the following colour combination as a guide.[4]

Back Ground Colour	Lettering Colour
White	Red, Green, Blue, Black, Brown
Yellow	Red, Blue, Black, Brown, Green
Light Blue	Yellow, Brown, Purple, Black, Red
Dark Blue	Red, Green, Yellow, White
Light Green	Brown, Red, Black
Dark Green	Black, White, Yellow

Other things to consider during design stage is legibility. For example, simple block letters should be used for captions instead of decorative styles.

Audio tape recording requires planning. Audio media can be used for vocabulary practice, direct instruction, gathering information from categories of people e.g. old people which is referred to as **oral literature** in library programmes. The librarian can record sound himself on audio tape by carefully making the following preparations:

The location of recording can be indoor or outdoor. If the recording is to take place indoor consideration is given to supply of AC electricity. Where electricity is not available for either indoor or outdoor (in rural areas) he should plan to use DC Current (batteries). Hard doors and walls can be covered with blankets or cardboards to minimize sound reverberations. Recording may be done in the night in urban centres where noise is much. The librarian must be familiar with control knobs such as pause, record, play, rewind etc.

Production of Instructional Materials

Before 1440, when Guttenberg invented the moveable type all books were hand written by scribes, a laborious process and the books were few in number. Production involves all activities that contribute towards the reproduction of instructional materials. It starts with the conception of the idea of an instructional medium and ends with mass reproduction. Reproduction process depends on the type of instructional material to be reproduced.

It is necessary for the librarian to know some basic techniques for production in order to successfully translate design to actual visuals. Skills and techniques that the librarian needs include:

1.Lettering techniques
2.Enlargement of illustrations
3.Mounting of pictures
4.Simple object drawing
5.Match stick drawing
6.Making of perforated outline of drawings

Acquisition of these skills enables the librarian to design and produce

himself many visuals to use in the library. School libraries serve as a means of combating major short comings of mass education by giving recognition to individual differences of the students as explained by Aina.[5] To successfully produce what has been designed the librarian must have practice or try his hands on those techniques that make for economy of effort in disseminating information. Any of the skills and techniques could be used singly or in combination with some others to make a visual medium. Recorded audio tapes could be duplicated using direct method of patch cord method.

Summary

Educational Technology is the development, application and evaluation of systems which is concerned with appropriately designing learning situations which may involve the modification of the learner's environment through techniques of presentation in physical setting. According to Dick and Carey, this type of presentation of learning activities intends reliance on instructional materials which require designing, producing and testing for effectiveness with learners.[6] Instructional materials include: transparencies, slides, tape recordings, displays, posters, turnover charts, television, models, opaque projections, still pictures, electronic boards, bulletin boards, illustrated booklets and computer assisted instructional materials. They combine print and visual media which help them to tap both subjective feelings and objective attractions. When instructional setting demands that visual media be used, basic design principles for layout work must be incorporated.

Conclusion

Since it is an acceptable fact that instructional materials are integrated process which involves librarian and library users no unit part should be regarded as luxury in libraries. A school librarian who has no place such as media centres where to select media to assist his clientele would need to design and produce many of the media he might need especially the visual and audio materials. School librarians do not have to be fine artists in order to make simple audio and visual media. However, media specialists have to organise workshops and seminars to train them to master well the techniques and skills to design and produce various instructional materials. Educational task only looks simple on the surface but the means justify the ends. One may not mind any cost of designing and producing these instructional materials to gain their general and specific advantages in the library. The library is an educational institution and education is a system in which Educational Technology (Instructional Materials) is an integral part. The library has to be a place where various instructional materials must be made available for

the library users since the librarian needs to satisfy the user's demands for information in whatever format — print and non-print materials. It was suggested by Aina that libraries could have the services of a graphic artist-oum-audio-visual-resources man who would be in charge of the audio-visual section of the library where necessary.[7]

Notes

1 J. O. Aina, "The librarian's role in the use of educational technology," *Journal of Educational Media & Library Sciences,* 29 : 1(1991) : 22-27.

2 Rober Heinich et al., "*Instructional Media and the New Technologies of Instruciton* (New York : John Willey & Sons, 1998), p.329.

3 Phillip J. Sleeman et al., *Instructional Media and Technology* (New York : Longman Inc., 1999).

4 *Ibid.,* Heinich.

5 *Ibid.,* Aina.

6 W. Dick & L. Carey, *The Systematic Design of Instruction* (Clen View, Illionois : Scott, Foreman and Company, 1998).

7 *Ibld.,* Aina.