

Teaching Aids: Non-conventional and Modern

Module Details

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Introduction

Man's eternal thirst for knowing about new thing has enabled him to accumulate, through ages, a vast sea of knowledge. Knowledge seeking is basically a pleasurable phenomenon for him. If it is not there, there must be something wrong with the knowledge imparting process or the milieu in which he is put to learn. Hence, it is for the teacher to impart knowledge in such a way that it becomes a pleasure-giving phenomenon rather than a burden. In the case of adult learners this question attains greater significance. Adult learner is a mature student who is acquiring new knowledge and skills, developing new attitudes after having reached mature intellectual, physical and social development (Kapur, 2015). Adult learners shoulder many difficulties unlike

the younger student learners. Being part of the learning can be actually challenging for them. Under these circumstances, teaching-learning should be carried out in an effortless manner. The teaching learning environment has to be lively and cuts out the use of monotonous techniques and instructional devices.

At the end of every teaching- learning process there are certain learning objectives that have to be achieved. To accomplish this well the teacher or the facilitator uses different types of teaching techniques and methods, materials, devices and strategies. If the teacher uses only verbalism as in lecture method, it will not lead to effective learning. Moreover research done by Cobun (1968) shows that while learning, we remember 10 % of what we read, 20 % of what we hear, 30 % of what we see, 50 % of what we hear and see, 70 % of what we say, 90 % of what we say and do. Therefore it is essential that for effective teaching learning the learning experiences have to filter in through multiple sensory avenues or sensory gateways viz. through – eyes (see), ears (hear), nose (smell), tongue (taste), skin (touch). Messages coming in through multiple sensory channels are understood and retained better. Teaching Aids are the tools available to the teachers to provide multiple sensory experiences and to carry out teaching- learning process effectively and efficiently. Carmona and Fransisco (2006) confirm that it is necessary to integrate teaching aids in order to facilitate the teaching process.

There are a large number of teaching aids available to the teacher/facilitator. This module will focus on what is the need and importance Teaching Aids and closely examine various types of Non-conventional and Modern Teaching Aids.

Objectives of the Module

- i) The student will be able to explain the concept and need of Teaching Aids in the teaching- learning process
- ii) The student will be able to categorize different various types of Teaching Aids especially the Non-conventional and Modern.
- iii) The student will be able to examine the characteristic and utility of each of the Non-conventional and Modern Teaching Aids

What are Teaching Aids?

A Teaching Aid is an instructional aid (book, chalk board, picture), an object (such as a globe, or map or a specimen) or device (such as a DVD or computer) used by a teacher to enhance or enliven classroom instruction. Teaching Aids are instructional materials and devices that help the teacher in carrying out teaching-learning process. According to The Random House Dictionary (2017) 'Teaching Aid is the

material used by a teacher to supplement classroom instruction or to stimulate the interest of students'. Teaching aids are aids available to the teacher. They cannot replace the teacher by any means.

Making the learning process effortless as well as pleasurable is a difficult task. A lot depends on the creative and innovative abilities of the teacher /facilitator. Use of teaching aids with adult learners can facilitate the learning process by making it interesting and less time consuming (Kapur, 2015). For instance, if on a particular day, the importance of clean water has to be taken up in the class then instead of just giving a lecture on the topic, the whole issue can be discussed using a picture book or a cartoon book or even by showing a film. This method is likely to be more effective and evoke lively responses from the learners. If the learners are further asked to illustrate or draw out the sources of clean drinking water, or even demonstrate ways of keeping water clean and safe, or the health hazards that can arise by the use of unclean water – this would further go on to reinforce the concept. The use of teaching aids enables learners to not only use their hearing or seeing abilities but to actively perform something as well while learning. This leads to the reinforcement of learning.

What we hear we forget
What we see we remember
What we do we understand

- Confucius

Need of Teaching Aids for the Learners

1. Teaching aids elicit the learners' attention, create an urge to learn and sustain their interest in learning.
2. Teaching Aids make teaching learning process interesting.
3. Its use facilitates learning.
4. Use of Teaching Aids brings affectivity in learning.
5. Their use enriches the teaching learning process by bringing variety, diversity and newness in it.
6. Teaching aids keeps the learners driven and motivated to learn.
7. Teaching aids concretize learning experiences for the learners. They enable them to understand the most difficult and abstract concepts.
8. They provide direct purposeful experiences to the learners.

9. Learners have a tendency to forget. If used properly teaching aids can help retain concepts permanently.
10. Teaching aids can reinforce learning.
11. Teaching Aids can reach the learners irrespective of their level of literacy and language.
12. The teaching aids when used in groups, helps promote increased group interaction.

Need of Teaching Aids for the Teacher/Facilitator

1. Use of Teaching Aids helps teachers/facilitators create a lively and interesting teaching- learning environment.
2. By their use teachers can break the monotony in teaching caused by the rampant use of verbalism (Lecture method).
3. Their use leads to an interactive learning environment and hence brings affectivity in teaching.
4. Helps teacher use innovative materials and methods to clarify concepts and hence become more effective and efficient teachers
5. It enables the facilitators to determine learners pace of learning.
6. Their use helps in monitoring the progress of the learners.
7. They help minimize the efforts of teachers and facilitators too in the process of teaching
8. Save time and energy expended both by the teachers in transacting concepts and learners in understanding them.
9. By use of Teaching Aids the teachers can cater to the needs of diverse groups of learners, diverse learning styles by use of variety of materials, aids and devices intertwined in the teaching- learning process.
10. Help the facilitators in the skilful achievement of teaching objectives and goals.
11. Can help the teachers/facilitators in spread of awareness and education on a mass scale.

Types of Teaching Aids

After having grasped the concepts and need of Teaching Aids, we will now examine their various types. Teaching Aids can be broadly classified as follows:

I. On the Basis of Time-period of use of Teaching Aids

1. Conventional or Traditional Teaching Aids
2. Non-conventional and Modern Teaching Aids

Traditionally when technology had not yet appeared in the form as it is available today- there was no electricity, no computers or internet and even telephones. The teacher made use of chalk and blackboard as a standard teaching aid. Another popular teaching aid was the 'dust and mud sketching' used rampantly by the teacher. Even the elements of nature, actual objects and specimens presented themselves as teaching aids. Everything was written. Books formed the traditional or conventional resource available to both the teachers and learners.

With the gradual technological progress, modern and non-conventional teaching aids and resources became available to both the teachers and students like Computers, Personal computers, Laptops, **Interactive Whiteboard**, LCD projector, Television, Tablets, Android phones, accessories like U.S.B cable, etc. The modern teaching aids present themselves in a variety of forms and utility. A world of opportunities like teaching aids, games, activities and media are available to the students today. They have made the teachers/facilitators task both enjoyable as well as challenging. The use of Non-conventional or modern teaching aids plays an important role in the teaching learning process today.

II. On the Basis of the Sense Organs Involved

Teaching Aids are also called as Audio- Visual Aid. Traditionally used teaching aids stimulated only one sense organ that is either the eyes or ears. However the contemporary teaching aids provide stimulation to ears and eyes together. The emerging teaching aids involve other sense organs too.

- A. Audio Aids
- B. Visual Aids
- C. Audio Visual Aids
- D. Emergent Aids

III. Projected and Non-Projected Aids

Projected: Projected Aids include Power point presentations, slides, film-strips, filmstrip projector, films, transparencies, overhead projector, TV/VCR as they can be projected on screen or even against white-washed wall to give an enlarged image of the material. They can be used suitably for both large groups as well as small groups. The large, bright and colourful larger than life images make them more effective than a non-projected aid.

Non-Projected: Those aids which do not require projector electricity or projection screen. Such materials can be simply shown, can be hung or touched e.g: Chalkboard, Whiteboard, Flannel board, Magnet board, Charts, Posters, Pictorial Materials, and

Models etc. They can hence be used with good results. They provide first hand experiences and also make the learners actively participate. They add an interest and involvement of the learner and ensure better results and longer retention.

IV. On the Basis of the Experience Provided by an Aid

Some teaching aids are concrete in nature. While there are other teaching aids which are more abstract. Prof. Edgar Dale (1959) has given the Cone of Experience wherein the type of experience provided by various teaching aids has been arranged in a pictorial form



The Cone is a pictorial device, a visual model that presents various bands of experience arranged according to degree of abstraction and not degree of difficulty. The farther you go from the bottom of the cone, the more abstract the experience becomes.

Fig. 1. Edgar Dale Cone of Experience

Source: <http://dctedtech1sy20162017.blogspot.in/2016/08/lesson-5-cone-of-experience-cone-is.html>
<http://dctedtech1sv20162017.blogspot.in/2016/08/lesson-5-cone-of-experience-cone-is.html>

In the following section we now will elaborate Non-conventional and Modern Teaching Aids.

Non-conventional and Modern Teaching Aids

1. Interactive Whiteboard (IWB):

The **Interactive Whiteboard** has replaced the chalkboard that enables the teachers to save their notes as a page on the board instead of wiping it out completely due to paucity of space. Using a digital projector this also allows computer images to be displayed onto a board. The instructor can even manipulate the elements on the board by using her/his finger as a mouse or even a stylus pen, directly on to the screen. Items can be dragged, clicked and copied and teacher's handwritten notes can be transformed into text and saved. The **Interactive Whiteboard allows for** printing, recording, editing, cut/copying, pasting etc from the board. It comes with a software and teaching

resources that aids the teacher and effectively enhance learning and increase understanding among student. It is a powerful tool in the classroom, leading to interactivity and collaborative learning. It allows for group work amongst students replacing paper/poster presentations. It integrates a variety of media content into the lecture. IWB is an extremely flexible tool which is now commonplace in Private schools in Metros. However the Indian Universities have been relatively slower in adopting this technology.

2. Computers and Internet:

Computers and the internet form a very important electronic resource that plays a central role in teaching-learning process. Whether one is a teacher or a learner, young or old everyone is completely immersed in the digital revolution. Computers and the Internet are a great teaching as well as learning resource for both the classroom teachers and the learners! Teachers can find suggestions, lesson plans, practical support, information, and materials through the Internet (Brinkley, et al, 1999). In fact, using a computer can make a teacher's life easier and more efficient. The learners simply Google out what they want to find.

Computer in conjunction with internet is a useful non-conventional and modern teaching aid as:

1. Books, materials, resources, researches are available online for both teachers and learners. This saves time in locating books in bookshops, libraries, etc. and money spent on purchasing books.
2. Useful Websites can be integrated in the lessons, presentations.
3. Learners can even continue project discussions outside their class too.
4. Provide opportunities for Online discussion forums. Subject Experts, specialists can join discussions online.
5. Electronic mails or emails can keep learners informed and updated.
6. Webinars or web seminars and web conferences can make the entire teaching process lively.
7. Especially designed online course materials can be accessed on UGC ePathshala or MOOCs.

Use of computers requires a lot of skill. Even the creation of computer based teaching learning materials for class requires a lot of time on part of the teachers. If the teacher/facilitator is hosting online websites then maintaining it is a time consuming.

Computer is a good resource but over reliance can compromise effectiveness of teaching.

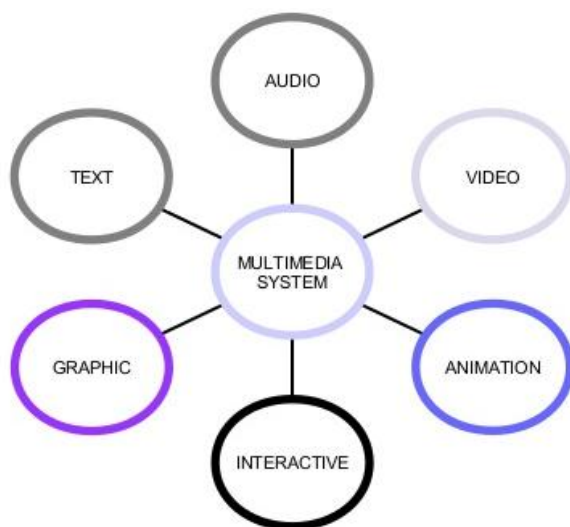
3. Live-Stream Multimedia:

Live-Stream refers to online streaming media that is simultaneously recording and broadcasting in real time to the viewer. It is also called **streaming**. This is a multimedia and which enables a person the live broadcast of events on the internet as it happens. Lectures, presentations and programs can be broadcast live as they take place. Students and parents can also connect to any program that is going on at any given time. It's a boon for the Distance learning students who can easily hook up with lecture online irrespective of their location. The services include hosting both social media sites to video games. Apps such as Facebook Live, Periscope and [17](#) include the streaming between users, streaming of scheduled celebrity events and promotions. For the past sometime, Twitch Plays *Pokémon* (TPP) video game live streaming has taken the world by surprise. The *Pokémon Go* a free-to-play, location-based augmented reality game was developed for iOS and Android devices by Niantic. The game uses the player's mobile device's GPS ability to locate, capture, battle, and train virtual creatures, called *Pokémon*, which appear on the screen as if they were present at the same real-world location as the player. Sites such as Twitch.tv are popular for playing/watching video games, such as eSports, speedrunning. Let's Play-style gaming.

4. PowerPoint/ Slide Presentations

PowerPoint Presentations are very popular instructional material comprising of a series of slides using software as PowerPoint. They have replaced the transparencies and the Over Head Transparency Projectors- the Episcopes today. The PowerPoint presentations have even replaced the use of videos in classrooms. PowerPoint Presentations comprise of slide-based presentations. They have become an integral part of many teaching learning situations used with ease and comfort by teachers and students alike. The PowerPoint Presentations can be projected using the LCD Projectors. When the PowerPoint presentation includes audio-commentary it is possible for the teacher/facilitator to deliver the entire lecture electronically. In such situations Teachers have to be cautious and keep their students interested and engaged. Discussions should flow freely and feedback taken continuously. These Presentations are of an immense use when information has to be passed on, concepts transacted and skills developed. PowerPoint presentations help in focussing student's attention & the visual impact of the slides enrich curriculum and also increase interactivity.

5. Multimedia:



Multimedia Elements

Multimedia is both an evolution and a convergence of technology. The use of live-action video, feedback, questions and answers keep the learners attentive, interested and motivated, helping them enhance their skills.

6. Multimedia Projector:

People learn in a variety of ways. The teaching learning process today incorporates a way variety of media as still and moving pictures, sounds, audio-video clips, and even live streaming in their presentations. In such presentations Multimedia projectors are utilized in educational institutes, classrooms, within Board rooms, at offices, home. The teacher prepares the lecture or presentation on a storage device a computer Disc or even a flash drive and then connects the projector to a PC and projects it on the screen or white board using the Multimedia projectors. Projects, pictures, images, Power point presentations, graphics can all be used for presentations. This modern teaching aid facilitates teaching and enhances learning.

7. WhatsApp:

WhatsApp is meant for communication. Education too is communication. WhatsApp allows free unlimited messaging. Realizing the speed and instantaneous seamless transfer of messages between the sender and user, the Teachers and Facilitators are forming WhatsApp groups as an alternate tool for teaching and learning. WhatsApp uses a technology students are most familiar with: their mobile phones WhatsApp is being used by teachers:

1. To stay connected with learners outside the classroom
2. Use the Group Chats feature to create learning and study groups
3. Send assignment submission, presentation and test reminders
4. Answer questions and queries as when posed by learners.
5. Assign problems and allocate assignments to learners when they are not in class
6. Share relevant video and audio links, videos and audios with students
7. Its very cost effective

8. Radio:

Radio waves to carry information from the source to the receiver/audience in radio transmission. Amongst all the available means of communication radio has the maximum reach in India covering 97 per cent of India's population can access radio stations. Radio is the most sought after medium of entertainment and education. The educational use of radio in schools, universities and farmers led to the development of Interactive Radio Instruction (IRI), Radio Rural Forums (RRF) and community radios.

In 1990 Project in Radio Education for Adult Literacy (PREAL) was launched in 1990 by NLM and the All India Radio (AIR) primarily for the women beneficiaries in 17 technology demonstration districts of four low literacy States of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh (Kapur, 2016).

Gyan Vani was launched in March 2000. The radio station operating on 105.6 FM frequency. Gyan Vani operates in several cities of India. Each station covers an entire city including the adjoining rural areas as it has a range of about 60 km. It is functional as a media cooperative with programmes contributed by different educational institutions, NGOs, government, semi-government organizations, UN agencies, ministries of Agriculture, Environment, Health, Women and Child Welfare, Science & Technology, etc. on a day-to-day basis. National level institutions such as NCERT, NIOS and state open universities also contribute their programs to it.

Jamia Community Radio run by Jamia Millia Islamia had its first trial live transmission for 60 minutes on 15th March 2005. It was formally inaugurated on 6th March 2006. It serves to create an informed, educated and a confident community. The members of the community, who frequently take part in the production of shows, fulfill the objective of improving lives and thoughts of target audience and cater to their specific interests and demands.

Radio is a one time and one-way broadcast medium but with high degree of immediacy, realism and emotional impact. Since it is a cheap medium it is ideal for information, education and communication for the masses.

9. Television:

Television means to see over a distance. Television is a powerful telecast medium and has an advantage over radio as it provides both visual as well as auditory experiences. It can hook up viewers and mesmerize them across the limits of time and space. Television entered India on 15th September 1959 as a UNESCO sponsored pilot project with education as its sole aim. It was much later that entertainment was included in its mandate. Educational experiments in Television in adult education include ***Khilti Kaliyan* (Translation: Blooming Buds)**. ***Khilti Kaliyan* was a** 24-episodes TV serial telecast on Delhi Doordarshan for a period of 24-weeks. Intended for women between the age group of 15-35 years, it was based on the literacy primer ***Khilti Kaliyan* and hence the name**. The serial focussed on social, economic, political issues related to oppression, deprivation and marginalization faced by women so that the need for literacy could be kindled in them.

Chauraha (Translation: *The Cross Roads*) was a 40-episodes tele-serial of 15-minutes duration each was telecast on Doordarshan for adult literacy in 1992 for a period of 6-months. The Directorate of Adult Education (DAE) and the State resource Centre, Jamia Millia Islamia, New Delhi conducted this UNICEF sponsored experiment. The idea was to teach reading and writing of Devanagari (Hindi) to illiterate learners. The episode had a narrative storyline, high on emotions, incorporating awareness on development issues. Everyday images were superimposed with the Hindi letters to be taught, in a way following learning by association (Ghosh, 2006).

Since its advent a large number of educational TV programs have been running for schools, universities and farmers in India- SITE, UGC School Program, NIOS Educational TV, IGNOU Country wide classroom.

Television not only diffuses requisite information, but can also change attitudes and impart skills to the learners. Its mesmerizing qualities, visual impact and far & wide coverage further enhance its mass appeal. But when Television is used by the Teachers they have to keep in mind that program can only be beneficial if it makes connect with the concept that has been transacted to the learners. While the developed countries are taking full advantage of television in education there is a greater scope of its use in developing countries also.

Conclusion

There are a large number of teaching aids available to the teacher/facilitator. Teaching Aid is the material used by a teacher to supplement classroom instruction and stimulate

the interest of learners. With technological progress and advancement, modern and non-conventional teaching aids are available to both the teachers and students like the Computers, **Interactive Whiteboard**, Projectors, Television, Radio, Tablets, Android phones etc. The **Interactive Whiteboard** has replaced the chalkboard and is a powerful tool in the classroom. Computers and the internet form a very important electronic resource. Books, materials, resources, researches Websites, project discussions, Online discussion forums are all possible through the computer. The elements of text, graphic, video, sound and animation in Multimedia can lead to interactive learning. Multimedia projectors are utilized to project them. The Teachers and Facilitators are forming WhatsApp groups as an alternate tool for teaching and learning. WhatsApp uses a technology students are most familiar with: their mobile phones. Radio is the most sought after medium of entertainment and education. Being a cheap medium its ideal for information, education and communication for the masses. Television not only diffuses requisite information, but can also change attitudes and impart skills to the learners. The Non-conventional and Modern Teaching Aids are the present and future in the teaching learning process. They are an evolution and a convergence of technology and of immense utility to both the teachers and learners.