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Introduction

Hello and welcome to yet another module on physical education and today we will be discussing about the audio-visual aids in physical education training. The physical education training is a traditional process but the but the input given by the digital and the multimedia tools can certainly play a very positive role in in the process of imparting physical education training, let's have a look.

Audiovisual education or multimedia-based education (MBE) is instruction where particular attention is paid to the audio and visual presentation of the material with the goal of improving comprehension and retention.

After the use of training films and other visual aids during World War II, audiovisual technology gradually developed in sophistication and its use became more widespread in educational establishments such as schools, colleges, universities, museums and galleries, as well as at tourist destinations, such as the purpose-built circular cinema, Arromanches 360, at arromanches-les-Bains, which shows a 360 film presentation of the Normandy landings.

Children learn best by observing and copying the behaviors of adults. It is therefore evident that learning is more effective when sensory experiences are stimulated. These include pictures, slides, radios, videos and other audiovisual tools. According to the Webster dictionary, audio-visual aids is defined as training or educational materials directed at both the senses of hearing and the sense of

sight, films, recordings, photographs, etc. used in classroom instructions, library collections or the likes. The concept of audiovisual aids is not new and can be traced back to seventeenth century when John Amos Comenius (1592-1670), a Bohemian educator, introduced pictures as teaching aids in his book Orbis Sensualium Pictus (picture of the Sensual World) that was illustrated with 150 drawings of everyday life. Similarly, Jean Rousseau (1712-1788) and JH Pestalozzi (1756-1827) advocated the use of visual and play materials in teaching. More recently, audiovisual aids were also widely used during and after World War II by the armed service. The successful use of picture and other visual aids in U.S armed forces during World War II proved the effectiveness of instructional tools. There are various types of audiovisual materials ranging from filmstrips, microforms, slides, projected opaque materials, tape recording and flashcards. In the current digital world, audiovisual aids have grown exponentially with several multimedia such as educational DVDs, PowerPoint, television educational series, youtube, and other online materials. The goal of audio-visual aids is to enhance teacher's ability to present the lesson in simple, effective and easy to understand for the students. Audiovisual material make learning more permanent since students use more than one sense. It is important to create awareness for the state and federal ministry of education as policy makers in secondary schools of the need to inculcate audiovisual resource as main teaching pedagogy in curricula. The outcome is to promote the audiovisual material in secondary schools because they lack the resource to produce them. The visual instruction makes abstract idea more concrete to the learners. This is to provide a basis for schools to understand the important roles in encouraging and supporting the use of audiovisual resource. In addition, studies have shown that there is significant difference between the use and non-use of audiovisual material in teaching and learning.

Objectives, Advantages and Disadvantages

- To strengthen teachers skills in making teaching-learning process more effective
- To attract and retain learners' attention
- To generate interest across different levels of students
- To develop lesson plans that are simple and easy to follow
- To make class more interactive and interesting
- To focus on student-centered approach

Advantages

In this modern world we use digital tools to improve the teaching-learning process. The most common tool we use in classroom these days is PowerPoint slides, which makes the class more interesting, dynamic and effective. Moreover it also helps to introduce new topics in easy way. The use of audiovisual aids makes the students to remember the concept for longer period of time. They convey the same meaning as words but it gives clear concepts thus help to bring effectiveness in learning.

Integrating technology into the classroom help students to experience things virtually or vicariously. For example, if the teacher wants to give a lesson on Taj Mahal, it is possible that not all the students in India have visited the place but you can show it through a video thereby allowing the students to see the monument with their own eyes. Although the first hand experience is the best way of educative experience but such an experience cannot always be done in a practical manner so in some case we need to have substitution.

Use of audio-visual aids help in maintaining discipline in the class since all the students attention are focused in learning. This interactive session also develops critical thinking and reasoning that are important components of the teaching-learning process.

Audiovisual provides opportunities for effective communication between teacher and students in learning. For example, in a study on English as Foreign Language (EFL) classroom, the difficulties faced by EFL learner are lack of motivation, lack of exposure to the target language and lack of pronunciation by teacher, and such difficulties can be overcome by Audio as purpose of communication and Visual as more exposure. Students learn when they are motivated and curious about something. Traditional verbal instructions can be boring and painful for students. However, use of audio-visual provides intrinsic motivation to students by peaking their curiosity and stimulating their interests in the subjects.

Disadvantages

One should have an idea that too much audio-visual material used at one time can result in boredom. It is useful only if it is implemented effectively. Considering that each teaching learning situation varies, so it is important to know that all concepts may not be learned effectively through audiovisual. Most of the time the equipment like projector, speakers and headphone are bit costly hence some of school cannot afford it. It needs a lot of time for teacher to prepare lesson to have interactive classroom session. Also teacher’s valuable time may be lost in gaining familiarity with new equipment. Some students may feel reluctant to ask questions

while film is playing and in small rooms can be a physical barrier. In country like India where electricity is not available in rural areas, it is not feasible to use audio-visual aids that requires electricity.
The current, popular understanding of the term "diorama" denotes a partially three-dimensional, full-size replica or scale model of a landscape typically showing historical events, nature scenes or cityscapes, for purposes of education or entertainment.

Types

One of the first uses of dioramas in a museum was in Stockholm, Sweden, where the Biological Museum opened in 1893. It had several dioramas, over three floors. They were also implemented by the National Museum Grigore Antipa from Bucharest Romania and constituted a source of inspiration for many important museums in the world (such as the Museum of Natural History of New York and the Great Oceanographic Museum in Berlin).Modern museum dioramas may be seen in most major natural history museums. Typically, these displays use a tilted plane to represent what would otherwise be a level surface, incorporate a painted background of distant objects, and often employ false perspective, carefully modifying the scale of objects placed on the plane to reinforce the illusion through depth perception in which objects of identical real-world size placed farther from the observer appear smaller than those closer.

Digital Light Processing (DLP) is a display device based on optical micro-electro-mechanical technology that uses a digital micromirror device. It was originally developed in 1987 by Dr. Larry Hornbeck of Texas Instruments. While the DLP imaging device was invented by Texas Instruments, the first DLP-based projector was introduced by Digital Projection Ltd in 1997. Digital Projection and Texas Instruments were both awarded Emmy Awards in 1998 for the DLP projector technology. DLP is used in a variety of display applications from traditional static displays to interactive displays and also non-traditional embedded applications including medical, security, and industrial uses.

DLP technology is used in DLP front projectors (standalone projection units for classrooms and business primarily), DLP rear projection television sets, and digital signs. It is also used in about 85% of digital cinema projection, and in additive manufacturing as a power source in some printers to cure resins into solid 3D objects.

Smaller "pico" chipsets are used in mobile devices including cell phone accessories and projection display functions embedded directly into phones.

A slide projector is an opto-mechanical device for showing photographic slides. 35 mm slide projectors, direct descendants of the larger-format magic lantern, first came into widespread use during the 1950s as a form of occasional home entertainment; family members and friends would gather to view slide shows, which typically consisted of slides snapped during vacations and at family events. Slide projectors were also widely used in educational and other institutional settings.

Photographic film slides and projectors have mostly been replaced by image files on digital storage media shown on a projection screen by using a video projector or simply displayed on a large-screen video monitor.

An overhead projector works on the same principle as a 35mm slide projector, in which a focusing lens projects light from an illuminated slide onto a projection screen where a real image is formed. However some differences are necessitated by the much larger size of the transparencies used (generally the size of a printed page), and the requirement that the transparency be placed face up (and readable to the presenter). For the latter purpose, the projector includes a mirror just before or after the focusing lens to fold the optical system toward the horizontal. That mirror also accomplishes a reversal of the image in order that the image projected onto the screen corresponds to that of the slide as seen by the presenter looking down at it, rather than a mirror image thereof. Therefore, the transparency is placed face up (toward the mirror and focusing lens), in contrast with a 35mm slide projector or film projector (which lack such a mirror) where the slide's image is non-reversed on the side opposite the focusing lens.

Functions of Audio Visual Teaching Aids - I

1. Facilitate and develop a community of learners through online ice-breaker activities. These activities offer fun and easy ways to get to know each other while also providing outlets for student creativity. A neat tool that works well for this is VoiceThread. Students can use a computer webcam to record a video of themselves and view other students videos, all on one page.

2. Help students visualize difficult concepts or procedures more easily by using static or dynamic multimedia.
Very simple and efficient software called ScreenSteps, which allows you to quickly create visual handouts for learners. Teachers and students can use softwares like jing to record a screenshot or video, which produces a video tutorial or information about a website, embedding the video on their website or sending it to the student as an email attachment. These types of software provide a great way for teachers to make the most out of their multimedia and online resources.

3. Scaffold learning through activities enhanced by videos and online games.
When assigning reading about an obscure historical event, you might want to create pre-reading activities by having students watch and comment on videos that fill in needed background knowledge. Searching for videos about events can provide needed support and add to a student's gap in knowledge. Then you could embed these videos on your class website, blog, or wiki. Or, have students add to a playlist as they locate more videos on the topic.

4. Make language and culture come alive through the viewing and creation of audio and video instruction.
Students could view videos and television programs available online and stay up-to-date on current events in that country. They could also create their own videos and share them with another class, comparing cultural norms and addressing other questions through a group blog or wiki.

5. Provide a menu of authentic assignment options for students to complete, allowing them to explore and identify their passions and talents.
Encourage them to create and publish an original digital story. Have them produce a weekly podcast show for the classroom, highlighting events of the week, using blogs. They might also want to film their developing skills in a sport or record their progress in learning a musical instrument.

Functions of Audio Visual Teaching Aids - II

6. Enhance accessibility through the use of powerful multimedia software tools.
Encourage students to use a speech-to-text tool to write their next essay or short story. This is especially helpful for students who have fine motor challenges or students who have trouble with keyboarding. Use auto-captioning features to create accessible multimedia for students with hearing challenges.

7. Enable visualization of concepts and their connections through collaborative

construction and discussion of concept maps.
One of my all-time favourites is CMap tools, a free, multi-platform software tool that can be downloaded to your computer. Students could work in groups, constructing a concept map and even recording within CMap tools this construction.

8. Encourage collaboration and feedback by integrating assignments with tools that support conversations and comments.
For instance, have students post their slideshows and have them view their classmates presentations, and post comments. Or, have students create video comments on video sharing sites, such as TeacherTube. Use collaborative software, such as blogs and wikis, for students to easily create, edit, and publish their work. And, make sure you provide information for parents to access these social media sites to see what their children are doing.

9. Make learning situated and personal with easy to access information from you and the rest of the world.
Have students subscribe to your class Twitter and blog feeds and enable them on their mobile devices, if possible. Or, have them use a Twitter aggregator, such as Tweetdeck, to stay on top of news announcements. Show them how to subscribe to dynamic sites using RSS Readers and how to read and track updated content. Have them subscribe to podcasts and rate those podcasts. Allow students to contact you using SMS or other multimedia tools.

10. Help students document and present their learning through authentic assessments.
Instead of taking an end of term test, have students collect their work and detail their progress on their Learning Log, using any number of free blogging tools. Show them how to tag their posts, how to create categories (which could be the course objectives or standards), how to link to artifacts, how to write reflections, and then set aside time at the end of each week for reflection and documentation of their work. At the end of the term or semester, students could then refine their Learning Log, turning it into a showcase Portfolio, presenting it to the class and parents, discussing their work, what they learned, and where they want to go from there. Not only would this individualize their learning experience, but it would make students more responsible for their work and enable them to experience learning as being lifelong and active.

Conclusion

Audiovisual education or multimedia-based education (MBE) is instruction where particular attention is paid to the audio and visual presentation of the material with the goal of improving comprehension and retention. Children learn best by observing and copying the behaviors of adults. It is therefore evident that learning is more effective when sensory experiences are stimulated. These include pictures, slides, radios, videos and other audiovisual tools. According to the Webster dictionary, audio-visual aids is defined as training or educational materials directed at both the senses of hearing and the sense of sight, films, recordings, photographs, etc. used in classroom instructions, library collections or the likes.

So in this episode we have discussed a lot about different types of audio-visual aids which can be used for imparting physical education training and which can add a lot of cutting edge to the training and the education process. I hope the information provided was of some use to you all of you, thank you so much for watching.