

Use of Multimedia - As A Tool for Effective Learning



Education

KEYWORDS :

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ABSTRACT

In the present era, teaching- learning process in classroom is not limited to chalk and talk method, now a day, teaching method that lead to learning experiences through which learners try to obtain the specific objectives. In this effort a teacher uses various media like, audio, visual, single or multimedia package. Multimedia can be a powerful tool in exploring the nature of the world around us, including its technological systems. Multimedia access to knowledge is one of the possibilities of information and communication technology that has tremendous impact on learning. The instructional media have emerged in a variety of resources, and equipment, which can be used to supplement or complement the teachers' efforts in ensuring effective learning by students. The power of multimedia lies in the fact that it is multi-sensory, stimulating the many senses of the audience. It is also interactive, enabling the end users of the application to control the content and flow of information. This has introduced important changes in the educational system and impact the way we communicate information to the learners. Today's students are much more media-centric than previous a generation, that's why the use of multimedia in classroom cannot be denied anymore. Using multimedia as a resource for teaching learning process is in more demand. Thus, the main purpose of this paper is to discuss the process and use of multimedia as a tool in effective teaching and learning process.

INTRODUCTION

Technology is an increasingly influential factor in education. Computers and mobile phones are used in developing and developed countries both to complement established education practices and develop new ways of learning such as online education. This gives students the opportunity to choose what they are interested in learning. Technology offers powerful learning tools that demand new skills and understandings of students, including Multimedia, and provides new ways to engage students, such as Virtual learning environments. Technology is being used more not only in administrative duties in education but also in the instruction of students. Multimedia access to knowledge is one of the possibilities of information and communication technology that has tremendous impact on learning. The instructional media have emerged in a variety of resources, and equipment, which can be used to supplement or complement the teachers' efforts in ensuring effective learning by students.

MULTIMEDIA

The term multimedia by definition means 'more than one media'. According to Hofstetter (2001), multimedia is the use of computer to present and combine text, graphics, audio and video with links and tools that let the user navigate, interact, create and communicate. In other words, multimedia is the combination of various digital media, into an integrated multi-sensory interactive application or presentation to convey information to an audience (Damodharan and Rengarajan, 2007; Butcher-Powell, 2005). Other than that, interactivity is also part of the elements that are required in order to complete interactive communication process through the use of multimedia.

Multimedia is the exciting combination of computer hardware and software that allows you to integrate video, animation, audio, graphics, and text resources to develop effective presentations on an affordable desktop computer. (Fenrich, 1997).

"Multimedia" (without a hyphen) is now defined as organized elements of symbols (text—words and numbers), aural (sound effects, music, and speech) and visual (still images, video and animation) integrated in a single presentation system controlled by a computer.

Advances in information and communications technologies have brought about exciting opportunities for fundamental changes in education. Instructors increasingly leverage available

technologies to enhance their students' learning experiences, such as by creating vivid, playful, interactive learning environments that support multimedia presentations, adaptive online exercises, and virtual discussions with greater student control of learning and pacing.

Fetterman (1997) also viewed multimedia as those resources used for instruction that include one or more media such as graphics, video, animation, image and sound in addition to textual information. He identified four important characteristics of multimedia as:

Multimedia systems are computer controlled
 Multimedia systems are integrated
 The information content must be represented digitally
 The interface to the final presentation of media.

MULTIMEDIA LEARNING PRINCIPLES

Multimedia learning contains the following characteristics as the important principles.

Multimedia Content Characteristics

1. Words and pictures are better than words alone.
2. Multimedia learning is more effective when learner attention is focused, not split.
3. The presentation of multimedia content should exclude extraneous and redundant information.

Multimedia Delivery Characteristics

1. Multimedia learning is more effective when it is interactive and under the control of the learner.
2. Multimedia learning is most effective when the learner is engaged with the presentation.

Multimedia Context Characteristics

1. Multimedia learning is more effective when learner knowledge structures are activated prior to exposure to multimedia content.
2. Multimedia learning is most effective when the learner can apply their newly acquired knowledge and receive feedback.

MULTIMEDIA LEARNING ENVIRONMENT

Multimedia provides a technology based constructivist learning environment where students are able to solve a problem by

means of self explorations, collaboration and active participation. Simulations, models and media rich study materials like still and animated graphics, video and audio integrated in a structured manner facilitate the learning of new knowledge much more effectively. The interactive nature of multimedia provides the room to enhance traditional "chalk-and-talk" method of teaching with more flexibility to learners to adapt to individual learning strategy. It enables both the educators and learners to work together in an informal setting. The role of educators and learners are extended. Furthermore, it encourages and enhances peer learning as well as individual creativity and innovation.

MULTIMEDIA AND ITS PEDAGOGICAL STRENGTHS

Multimedia facilitates mastering basic skills of a student by means of drill and practice. It helps in problem solving by means of learning by doing, understanding abstract concepts, provide enhanced access for teachers and students in remote locations, facilitate individualized and cooperative learning, helps in management and administration of classroom activities and learning content, and simulate real life problem handling environments.

MULTIMEDIA IN EDUCATION: INSTITUTIONS APPROACH

There are two ways, multimedia education is imparted to the students by various universities / institutions: a) Teaching methodologies of multimedia content creation, which include imparting hands-on skills of software packages used for creation and authoring of multimedia content, and b) Employing interactive multimedia content and technology for effective teaching, which include the various methods of engaged learning like multimodal interactive information delivery, personalized and enhanced anytime-anywhere access of the content.

BENEFITS OF MULTIMEDIA TECHNOLOGY

Multimedia technology is intended to improve education over what it would be without technology. Some of the claimed benefits are listed below:

Easy-to-access course materials

Instructors can post the course material or important information on a course website, which means students, can study at a time and location they prefer and can obtain the study material very quickly.

Student motivation

Computer-based instruction can give instant feedback to students and explain correct answers. Moreover, a computer is patient and nonjudgmental, which can give the student motivation to continue learning. Students usually learn more in less time when receiving computer-based instruction and they like classes more and develop more positive attitudes toward computers in computer-based classes.

Wide participation

Learning material can be used for long distance learning and are accessible to a wider audience.

Improved student writing

It is convenient for students to edit their written work on word processors, which can, in turn, improve the quality of their writing. According to some studies, the students are better at critiquing and editing written work that is exchanged over a computer network with students they know.

Subjects made easier to learn

Many different types of educational software are designed and developed to help children or teenagers to learn specific subjects. Examples include pre-school software, computer simulators, and graphics software.

Benefits to Learners

- Work at own pace and control their learning path
- Learn from an infinitely patient tutor
- Actively pursue learning and receive feedback

Benefits to Teachers

- Allows for creative work
- Saves time for more challenging topics
- Replaces ineffective learning activities
- Increases student contact time for discussion

USE MULTIMEDIA IN THE CLASSROOM

Multimedia activities encourage students to work in groups, express their knowledge in multiple ways, solve problems, revise their own work, and construct knowledge. The advantages of integrating multimedia in the classroom are many. Through participation in multimedia activities, students can learn:

- Real-world skills related to technology
- The value of teamwork
- Effective collaboration techniques
- The impact and importance of different media
- The challenges of communicating to different audiences
- How to present information in compelling ways
- Techniques for synthesizing and analyzing complex content
- The significance of presentation and speaking skills
- How to accept and provide constructive feedback
- How to express their ideas creatively

Specific uses of multimedia include:

- drill and practice to master basic skills
- problem solving
- understanding abstract mathematics and science concepts
- simulation in science and mathematics
- access for teachers and students in remote locations
- individualized and cooperative learning
- management and administration of classroom activities

There are, however, some constraints to using multimedia in the classroom, including:

- Technological resources, both hardware and software
- Technological skills, for both the students and teacher
- Time required to plan, design, develop, and evaluate multimedia activities

CONCLUSION

It is recognized that conventional media technologies can no longer meet the needs of our teaching and learning processes; as a result they are being replaced by multimedia technology. This technology provides a learning environment that is self-paced, learner-controlled and individualized. Multimedia is now permeating the educational system as a tool for effective teaching and learning. With multimedia, the communication of information can be done in a more effective manner and it can be an effective instructional medium for delivering information.

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