



RESEARCH ARTICLE

**ROLE OF MULTIMEDIA IN ENGLISH CLASSROOM**

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With the changing times, Chalk and Talk teaching method is not enough to teach English effectively. Technology's efficacy in a language classroom is the need of the hour or else we remain disconnected from the modern trends of language development and language use. This paper is a humble attempt to demonstrate the efficacy of multimedia in English language instructional classes.

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INTRODUCTION

Multimedia is in essence a presentation of information that incorporates multiple media such as text, audio, graphics and animation. Multimedia need not be computerized but computers offer some of the most seamless multimedia presentations. Moreover, digital media such as CD ROM, can offer teachers great ease of presentation. . This article provides the basic introduction to multimedia and describes how it can be used to support student learning.

MULTIMEDIA APPLICATIONS FOR THE CLASSROOM

Integration of multimedia into instruction can help reduce curriculum barriers and improve learning of all students. Today's modern classroom is much different from the traditional classrooms. With new technology that is now being implemented, students and teachers have better resources than ever before to help them learn to their fullest potential. Online websites provide full of information, as well as interactive lesson plans. With new software, reference applications and e-classroom learning techniques, modern multimedia



has become an important tool for teachers at all grade levels. Online learning has even made college education possible without having to be on campus or attend real lectures. The E-classroom is simply becoming a staple in the education world, with more classes and resources going strictly online.

There are several different applications that are now being implemented in classrooms across the country. One of these is called 'students monitoring'. This application allows teachers to see the students' progress both in real time. Student monitoring keeps a virtual eye on students on how they are doing. It allows teachers to better gauge their students' individual success based on test scores and other results. Multimedia applications have become an absolute must in the most modern day classrooms. These applications utilize video, audio, photographs and graphics to help supplement traditional curriculum. Through the use of multimedia applications, the classroom can become a much more exciting place that also enlists more student involvement. It helps to keep students engaged and better remember the material they are studying.

Teleconferencing is quickly becoming an integral way to speak to two groups of people all at once without having to travel or be at the same place. Through teleconferencing, teachers can give lectures or speak to students via telephone or webcams. Students can call into a teleconference line and sit in on a class without actually being there, helping them to be able to learn and study from home. Virtual classrooms are similar to teleconferencing. Web chats, online forums and pre-recorded class lessons are all part of virtual classroom. The student simply signs into the classroom when they are able, and they can catch up on their own computer. This form of learning has made online degrees and remote learning possible to millions of people.

All students have had to use reference materials at some point in their education career. While Encyclopedias and dictionaries were widely used in the past, today reference applications and web sites are visited and utilized much more frequently. Here, students can do searches for exactly what they need and browse through hundreds of resources on one topic at any given

time. It makes the studying process much quicker and much easier for them and help them to find what they need easily. Teachers can also use modern applications such as assessment software to help see how well their students are doing and in what areas they might need to improve. This type of software is a good way to analyze each student on an individual basis and find out their strong and weak points. It is also a good way to get snapshot of the class as a whole so teachers can determine what areas of curriculum they need to focus more strongly and on what areas they can change.

New technology and internet are making education more interesting and more accessible to more people. Through the use of a wide array of software and multimedia applications, students and teachers alike can learn more and explain more. E-classrooms are becoming more prevalent, and remote education has opened horizons for millions of people. Today anyone can get the College Degree through the virtual classroom, saving them valuable time and money. It is because of new education technology that educators can expand their horizons and teach more people with better resources. Online learning makes education fun, exciting and easier to use for just about anyone.

TYPES OF MULTIMEDIA AND THEIR CLASSROOM APPLICATIONS:

Talking books and speech synthesis:

Digital texts can be read aloud using recorded human voice or synthetic text-to-speech programs. Read aloud is an intrinsic feature of so called talking books but with text-to-speech software, virtually any digital content including web-based text can be read aloud with or without synchronous highlighting of the printed text. Speech synthesis can be segmented at a variety of levels providing feedback at the level of the passage sentence, word, onset rhyme, syllable or sub syllable. Read aloud offers potential benefits to many students, including students with visual deficits, students with decoding problems and reluctant readers. In addition to providing access to curriculum content for those who cannot see or decode printed text, read aloud can support the development of key literary skills such as fluency and reading



comprehension and increase engagement and motivation.

CD ROM STORY BOOKS

CD ROM story books offer digital text in combination with features such as animations, illustrations, speech and sound. For example, a CD-ROM story book might offer the story text together with animations, vocabulary definitions and sound effects. Some story books offer great potential for engaging students, some incorporate valuable literary supports. Thus they can benefit reluctant readers and students with defects in basic literary skills. However their multimedia features are not always instructionally germane. Some story books feature entertaining animations and sound effects that while entertaining do not directly support access or learning. In fact they may be distracting for some students. Thus, teachers are advised to select CD-ROM story books carefully and with consideration of individual student characteristics.

HYPERMEDIA

Hypermedia refers to hyperlinked multimedia- the linkage of text, audio, graphics, animation or video through hyperlinks. For example, A hypermedia study guide might offer illustrated text book content hyperlinked to web based video and other content, glossary entries and comprehension questions. Other hypermedia applications for the classroom include supported digital reading environment and lessons.

Hypermedia offers a powerful means to integrate curriculum content with instructional supports and address varied students needs. Digital texts can be enriched with a wide range of instructional support such as vocabulary definitions, glossaries, translations, explanatory notes, background information might be presented as a map, video, annotated bibliography with text and audio or illustrated timeline. Using hypermedia, teachers can help a variety of learners including English language learners, language teachers, and students with comprehensive problems to work on important barriers posed by printed texts. Moreover, because the various supports are present as hyperlinks, students can access them individually as needed and on demand.

In addition to offering new means to present curriculum content, hypermedia offers new means for students to demonstrate knowledge and skill. Using hypermedia design software, students can construct multimedia compositions that afford them much greater range of possibilities than text. This is particularly important for students whose difficulty with writing might obscure their mastery of curriculum content.

COMPUTER SIMULATIONS

Computer simulations are computer generated versions of real world objects. Computer simulations are a means to open up the walls of classroom providing students with an opportunity to observe, manipulate and investigate phenomena that are normally inaccessible-an orbiting satellite or foreign culture using tools and materials that are not available in the classroom. In this respect, they provide an advantageous alternative to learning that might otherwise rely on lecture and printed text. Not only do simulations reduce barriers for students who struggle with the convention media, they provide multiple models for skill learning, and can increase the immediacy and authenticity of learning content with which is advantages to many lecturers.

Computer simulations can be used to increase content knowledge. For example, simulated Marine ecosystem can be used to teach Ecology concepts. Simulations are particularly well studied to comfort instruments with their misconceptions about essential learning concepts and helping them to develop skills. For example simulated science experiments can be used to facilitate mastery of Science process skills. Computer simulations are available on the web as well as in software form.

CHARACTERISTICS OF MULTIMEDIA SYSTEM

- ✚ Multimedia system must be computer controlled.
- ✚ Multimedia systems are integrated.
- ✚ The information the handle must be represented digitally.
- ✚ The interface to the final presentation of media is usually interactive.

CHALLENGES FOR MULTIMEDIA SYSTEM

Supporting multimedia applications over computer network renders the applications



disturbed. This will involve any special computing techniques.

Multimedia systems may have to render a variety of multimedia at the same instant – at distinction from normal applications there is a temporal relationship between many forms of media.(example: video and audio) There are two types of problems here-

- Sequencing with in the media playing frames in current order time frame in video.
- Synchronization: Intermedia scheduling, example: Video and audio clip synchronization is clearly important for humans to watch playback of videos and audio and even animation and audio.

The key issues multimedia systems need to deal with here are :

- How to represent and store temporal information.
- How to strictly maintain the temporal relationship and playback retrieval?

DESIRABLE FEATURES FOR A MULTIMEDIA SYSTEM

Very high processing power: Need to deal with large data processing and real-time delivery of media.special hardware commonplace.

Multimedia cable file system: Needed to deliver real-time media.Example: Video /Audio streaming. Special hardware system software needed.example: RAID Technology.

Data representations /file formats that support multimedia : Data representations/ file formats should be easy to handle yet allow for compression / decompression in real time.

Efficient and high I/O: Input and output to the file subsystem needs to be efficient and fast.Needs to allow for real-time recording as well as playback data.example: Direct to disk recording system.

Special operating system:To allow access to file system and process data efficiently and quickly. Needs to support direct transfers to disk, real time scheduling, fast interrupt processing, I/O streaming etc.,

Storage and memory: Large storage units of order of 50-100 GB or more and large memory 50-100 MB or more.

Large caches also required and frequency of Level 2 and 3 hierarchy for efficient management.

Network support: Client server systems common as distributed system common.

Software tools: User friendly tools needed to handle media design and develop applications deliver media

Components of multimedia system:

Caption devices:

Video camera, video recorder, Audio microphone, Keyboards,mic, graphic tablets, 3D input devices, tactile sensors, VR devices,digitizing/ sampling hardware.

Storage devices :Hard disk, CD ROMs, Jaz/zip drivers, DVD etc.,

Communication networks :Ethernet, joker ring, FDDI ,ATM , internets.

Computer systems:Multimedia desktop machines, workstations, mpeg / video / DSP hardware.

Display devices: CD quality speakers, HDTV ,SVGA, HI -Res monitors, color printers etc.,

Applications:

- World wide web
- Hypermedia courseware
- Video conferencing
- Video-on-demand
- Interactive TV
- Groupware
- Home shopping
- Games
- Virtual reality
- Digital video editing and production systems
- Multimedia database systems.

TRENDS IN MULTIMEDIA

Worldwide web:

Hypermedia system- embrace nearly all multimedia Technologies and application areas.Ever increasing popularity.

MBone:(Multicast back bone)Equivalent of conventional TV and radio on the Internet.

Enabling Technologies:

Developing at a rapid rate to support ever increasing need for multimedia.Carrier, switching, protocol, Application Coding/compression, database, processing and system integration Technologies at the forefront of this.

**Further reading / exploration:**

Web Museum, Paris

Audionet

BBC website

Index of multimedia Information sources

EDUCATION

In Education multimedia is used to produce computer basic training courses popularly called CBTs and reference books like Encyclopedia and almanacs. A CBT lets the user go through a series of presentations, text about a particular topic and associated illustrations in various information formats. Entertainment is a combination of education with entertainment. Especially multimedia entertainment.

Learning theory in the past decade has expanded dramatically because of the introduction of multimedia. Several lines of research has evolved (eg: cognitive load, multimedia learning, and the list goes on) The possibilities of learning and instruction are nearly endless.

The idea of media convergence is also becoming a major factor in education, particularly higher education. Defined as separate Technologies such as voice (and telephone features), data (and productivity applications) and video that now share resources and interact with each other, synergistically creating new efficiencies, media convergence is rapidly changing the curriculum in universities all over the world. Likewise, it is changing the ability or lack thereof, of jobs requiring this Savvy Technological skill

The English education in middle school in China is well invested and associated with various equipments. In contrast, the original object has not been achieved at the desired affect. The government, schools, family and students spend a lot of time working on improving scores but hardly gain potential skills. English education today has gone to a vicious circle. Education needs to consider how to perfect the education system to improve students' practical ability of English. Therefore, an efficient way should be used to make the class vivid.

Multimedia teaching is more destructive than always teaches can simulate simulations in real life. In many circumstances teachers do not have to

be there, students will learn by themselves in the class. More importantly, teachers will have more approaches to simulating students' Passion of learning.

EDUCATIONAL BENEFITS OF MULTIMEDIA TOOLS FROM THE STUDENTS PERSPECTIVE:

- Students indicate they learn the material included in the presentation at a much greater depth than in traditional writing projects.
- Students demonstrated great concern for accuracy in their displays.
- Students quickly assumed the major responsibility for the content and editing decisions despite the fact that the original task of designing the displays had been structured for them by the teacher.
- Student accessed wide range of science materials and source to find the content they desired.
- Their commitment to and enthusiasm for the project remained very high.
- On the negative side, the project failed to integrate its activities into the largest curriculum in the school or to attract the participation of teachers other than the computer coordinator. The bottom line was that the by establishing an environment where creative thinking about content is combined with real world assignments students learn the content enjoyed the learning process and recognize that they had created something worthwhile.

BENEFITS OF MULTIMEDIA FOR ALL

Improves learning: Numerous studies over the years have showed that interactive multimedia learning takes less time and is enjoyable more and increases learning

Interactive: Interactivity is mutual action between the learner, the learning system ,and the learning material.

Flexible : Multimedia courseware on CD-ROM can be used to work on the desktop or at learning centre, at home, at travelling, or to enhance the facilitated Management development programmes.

Multimedia courseware can also be used in networks, intranets or the internet.



Modular: Each topic or section can stand alone, so managers or trainees can delve deeply into the topic areas they need to learn, and skip over the ones they don't. In many cases applications include the option to custom build application for specific users where you can choose modules, and even edit the content in some fields.

Practical: It is capable of presenting true-to-life situations that learners face everyday. Adults are very practical learners- They learn best when faced with real problems that have real consequences. Decision tree simulation, Video simulation or simple animation help slow learners to learn-by-viewing; learn-by-doing, Learn-by-coaching.

Consistent: All learners learn the same principles and skills. Computer Based courseware typically forces instructional designers to better organise and structure learning materials, and this alone can be result in learning advantages.

Timely: Learners can turn to the program when simulations situations arise on the job, or when they are faced within new or increased responsibilities. This is critical since research has shown that learning is enhanced and better retained when the topic is relevant to current needs.

Engaging: Interactive learning with live-action Video, Audio, graphics, feedback, expert advice and questions and answers keep learners interested and reinforces skills.

Cost effective: Multimedia courseware may have higher up-front development costs, but overall studies have shown that it is less expensive and more cost effective than traditional classroom learning.

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