

Multimedia presentations:

A powerful education learning tool

Multimedia is one of the biggest buzzword around in education this age of computer technology. But what exactly is it and how does it affect the classroom learning situation? How do students learn? What do they learn? What modus operandi do they adopt?

Multimedia is short for multiple media and simply means using computers to bring together words, photographs, sounds, animations and video. It's a very powerful way for students to learn and for teachers to reinforce and complement traditional studying.

The benefits of multimedia are becoming increasingly apparent: it provides educational material as a living combination of words, sound and pictures and it encourages students' desire to explore and discover knowledge for themselves, making learning a joy not a chore. Studies have found that retention levels are increased when students are allowed to interact with information, rather than only hear or read it. Multimedia software has set new horizons for classroom work. Students now are able to create their own projects with multimedia technology. This is called multimedia authoring.

Students can take their own photographs and video, record their own voices, collect information from the Internet and combine it all in impressive and entertaining computer presentations. The possibilities are endless. As well as learning about their curriculum subjects, students engaged in multimedia projects learn vital computer skills, together with valuable social skills such as teamwork and collective decision-making. Students engaged in creating a multimedia project take responsibility for moment-to-moment decision-making, but the teacher decides how the technology will be applied to the learning goals.

EsseNTial Learning Areas (Curriculum Frameworks Document 2002, DEET) Creative Learner: Cr 1

Uses imagination, vision and a variety of resources for self-expression, enjoyment and interpretation of concepts, ideas and strategies.

Constructive Learner: Con 1

Accesses information and tools from appropriate sources, analyses these and applies the most relevant aspects to optimise results.

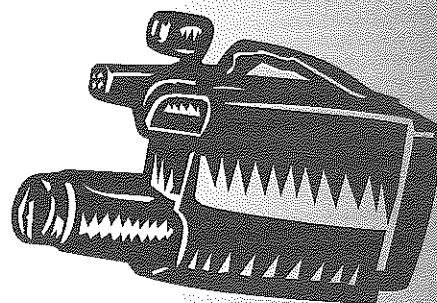
When students create their own effective multimedia presentations several skills are involved:

- Researching
- Creating
- Writing
- Organising
- Critical thinking
- Problem solving
- Relating & applying new ideas
- Understanding of three dimensional concepts

Beyond assembling pieces in an electronic version of cut, copy and paste, multimedia tools can provide tremendous stimulation and resources for development of critical thinking and problem solving skills. Thus using higher order thinking skills.

The term interactive multimedia covers many varieties. Interactive means that this new tool offers multiple choices or scenarios and as the program unfolds, the viewer chooses which sequences or subject/s to explore. The presentation interacts with the viewer by responding to these choices. Multimedia means graphics, music sound effects, voice, video and animation in any combination in the same program or presentation. These various media are the building blocks of a multimedia product or presentation but the cornerstone is the student's ability to interact spontaneously with the information, images or sound by using the computer.

The value of this technology comes when we empower the student to take a more proactive



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MULTI-MEDIA

role in the acquisition and analysis of information. Multimedia can provide a medium to help transform students from passive recipients of information to active participants in their own learning process. The dynamic, media-rich environment provides a potent way to reach students, laying the pathway for truly investigative learning. Therefore, it offers a constructivist approach to learning and strong interactive processes of learning.

In a unit of work on a community event "The Arafura Sports Games" which occurs in Darwin on a biennial basis, the students set about to research about the games which draw on many Asian neighbouring countries. For two hours a week over an eight week period, the students worked on computers using Hyperstudio to create projects that told the history and purpose of the games, specific sports represented, daily results tally and a multitude of other aspects which allowed expression through a multimedia authoring tool and simultaneously learning about the event which they would not otherwise had the opportunity to do so. Before starting the work, students were asked what they already knew about the event. The second phase was about what they wanted to know. Throughout the sessions they searched, reconstructed facts and created a new body of information. When their multimedia activities were completed, students were again asked what they thought they had learned. Above all, as part of their assessment, they had to present an oral presentation to the rest of the class explaining how they went about creating their Hyperstudio multimedia presentation. They were finally asked to do an evaluation on what they had learned during this unit of work.

Some of the responses given:

"I found answers to some of the things we wondered about..."

"I can see a difference in what I knew at the beginning and what I know now."

"How to look for information..."

"Learning to read better...deciding to choose only certain facts...need to be patient as it takes time to find things..."

"Learning about Hyperstudio...placing buttons where people would notice them...placing the sound over until it sounded right..."

"Working together and making right decisions ...sometimes you did not get your way."

Many aspects of learning could be assessed in this project. The learning process was evident in every step from the initial researching the focus to the completion culminating in the oral presentations. All learners experienced growth - some more or less according to the readiness of each student. Hyperstudio offers interaction - the ability to create a screen with buttons that will lead to many other screens in a non-linear way. When children create slide shows, the slide show's viewers are offered a choice of skipping to another part or just seeing all the information on one subject. A slide show is what the author had made it to be, create stories with many possible endings. They give the author the ability to create a multimedia experience that another person can shape when using their stack or project. Multimedia is therefore a dynamic flexible tool - promoting dynamic, interactive learning in a dynamic, interactive world.

Environmental multimedia can mirror the way we learn and the way the world works. KidsPix Studio Deluxe is another multimedia presentation tool which offers a very unique painting, animation and slide show product. It has all the typical paint tools e.g. brushes, geometric shapes, silly sounds, animated erasers and more. The paint drips or the eraser blows up or the letters talk to you. If you ask the students if they are drawing or playing music, many times they can't decide. It's all part of the same experience. As well as the sounds, there are animated effects that blend into the movie or crack your page in a million pieces. Kids Pix also offers Moopies, Stampinators and Digital Puppets. Not only can students create a multimedia presentation but using these tools is a multimedia experience in itself.

In Professor Howard Gardner's words, "A child's play has its purposes: greater mastery of the world, more adequate coping with problems and fears, and superior understanding of oneself and one's relationship to the world..., the child is free to experiment, to order, and to reorder objects, to try new combinations, to practice, refine and ultimately master his actions..." (Gardner 1992) Multimedia tools offer students this opportunity to learn through designing.

Multimedia authoring tools give young designers the opportunity to create their own multimedia presentations and interactive experiences. Video,

animation, sound, pictures and text can be combined using these authoring tools created specifically for children. With these tools, they can create such multimedia projects as slide shows that feature the growth of a plant, music videos that animate the parts of the body and interactive simulations that take you to a specific setting in time and place. With multimedia authoring tools, children are not limited to pre-packaged multimedia experiences that someone else designs, they can create their own. The best learning outcome takes place when the learner takes charge.

Multimedia authoring tools offer more than one method of communication. They engage students in searching for evaluating and synthesising information which interests them or meets some compelling purpose they have. Teachers should engage kids in the need for producing a variety of products designed to communicate information to different types of audiences in different settings. Then there is no doubt there will be a place for technology tools to be creatively and efficiently used in the current education settings and produce effective multimedia presentations.

Multimedia can be used with student groups for collaborative learning. Used as a learning station in a classroom interactive multimedia enables small groups to share their expertise and to explore in the learning process. Thus specialised training is not limited by the knowledge of instructors, the availability of scarce or valuable teaching materials, or the availability of teachers.

In assessment:

Using these tools in the classroom, certain activities become more common:

- More project-oriented work
- More group work and cooperative learning
- More interdisciplinary activities
- Giving students choices
- Create less structured classrooms – students become more self-reliant and independent.
- At the front of the classroom to enhance the report presentation.
- Allows healthy challenges amongst the students or group of students.
- Create compelling classroom audio visual demonstrations, the student can pause and instruct others on how that particular effect was achieved; show the whole demonstration etc...
- To entertain
- Creating Reports or presentations
- Students enjoy developing their own multimedia products.

- They offer teachers a valuable tool to enhance and change classroom activities.
- They enable children to express what they know about the world and the chance to create something new. Preparation for problem solving in the real-world context requires more than formulaic listing of actions. Strategic implementation requires adjustment and finesse. The *SCAMPER approach which has been described by Dr Jamie McKenzie the above author allows the student to arrange, blend, combine, integrate, test and adjunct the thought fragments until new pictures emerge. Multimedia authoring tools offer students just that.
(McKenzie Vol. 11 No 1 September 2001)

Conclusion:

The impact of multimedia authoring is profound. They can be a catalyst for change within our classrooms for learning within our children. They can promote active, creative, meaningful use of information by children. Young designers can learn diverse subject matter. Ideas can be presented visually, verbally or interactively. At the same time children can become expert technology developers and users. These are the most important strengths of multimedia authoring tools.

- *Scamper
- *Combine
- *Adapt
- *Modify, magnify, unify
- *Put to other uses
- *Eliminate
- *Reverse

Bibliography:

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Young Children and Learning Technologies

An International Open Conference of IFIP
Working Group 3.5 on Informatics and Elementary Education

JULY 13 - JULY 17 2003
SYDNEY AUSTRALIA

This conference will focus on young children's formal and informal learning with digital information and communication technologies in homes, early childhood settings and the early years of school.

The aim is to promote discussion and share research, policy and practices related to developing appropriate pedagogy for effective learning that incorporates young children's use of information and communication technologies for play, learning and development.

THEMES

- Effective pedagogy
- Learning processes
- Teacher education
- Project-based learning
- Distance learning
- Learning environments
- New literacies
- Access and equity
- National policy frameworks
- Programme evaluation

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