Bye, Bye Verbal-only Method of Learning: Welcome Interactive Multimedia.

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Abstract:

Today, our verbal-only paradigm of teaching is on its way out. Interactive multimedia instructions have enabled learners to go forward smiling. Learners are motivated and encouraged by the evolving interactive multimedia to learn cooperatively and above all to learn meaningfully. Integration of interactive multimedia and technology in our classrooms help learners to acquire significant skills and to be productive. This literature review discusses some reimbursement of interactive multimedia through the lens of constructivist teachings in the classroom. Constructivist methodology is a way of life for learners. Learners gain respect in a constructivist environment. There is a bond between students and teachers in the constructivist classroom. They all have one common purpose, to be engaged in meaningful dialogue with each other. This review aims at merging state of the art technology to our poorly and methodologically unsound traditional classrooms for the benefit of all knowledge lovers. As such, this review may help traditional teachers to plan the implementation of technology into their settings.

The promise of multimedia is simple; learners enjoy learning by using computer assisted multimedia instructions. Multimedia instruction assists students to learn more deeply and above all to enjoy such a learning environment. Students learn because the instruction is presented to them in a meaningful way using sounds, pictures and animations. Undoubtedly, these little animations and pictures foster deep learning (Richard E. Mayer 2003). *Copyright: Qais Faryadi*(2006).

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Mayer defines deep learning as: "learning that leads to problem solving transfer" (Richard E. Mayer 2003). So the objective of multimedia message is clear, it encourages learners to learn with meaning. This happens when the users use the presented materials differently and in a new ways i.e. discovery learning. More over, meaningful learning happens when student's understandings are promoted using cognitive methods followed by mixture of words and pictures. (Richard E. Mayer 2003).

According to (Richard E. Mayer 1999). one of the most important promise of multimedia is that learners appreciate multimedia explanations better than just a word alone. Learners can comprehend pictures and sound more easily than words. If words alone are presented to the learners, they try to form their own mental images and this may cause them to miss the actual points of learning.

"When students pair up or work in small groups with the computer, they learn much more than the subject matter. They learn to work collaboratively, a skill that today's employers are looking for" (Susan Mandell, Dennis H Sorge, James D Russe 2002). By integrating multimedia technology in our curriculum, our teachers and instructors will have more flexibility and autonomy over verbal only methodology of teaching in the classroom (Ken Neo Tse-Kian 2003).

Study indicates that teachers who integrate technology in their classrooms, not only motivate their students to learn, but it helps their students to acquire significant skills in the process (Glenda C Rakes. 2006). "Teachers are beginning to use technology as a tool to promote students' ability to reason and solve authentic problems. Teachers use existing technology to transform classrooms into dynamic centers of professional learning that intuitively move students from awareness to authentic action" (Glenda C. Rakes, Valerie S. Fields and Karee E. Cox. 2006). In another words, if the instructors use technology in the classroom properly, no doubt, it will reinforce higher cognitive skills among the learners. Copyright: Qais Faryadi(2006).

When instructors implement technology in their classrooms, constructivist learning environments evolves. According to constructivism, learning is fun and learners learn to learn together and support each other. In constructivism environment instructor will utilize variety of tolls to enhance his teaching. According to constructivism, such atmosphere creates a classroom which is active and productive. "Education is in transformation period. Technology use in the classroom is a major part of this transformation" (Yates, Robert, Rhett Coleman. 2005).

Technology alone does not improve students' achievements; trained teachers, school settings, smaller class size, proper content materials, cooperative learning and authentic instructions are an equally contributory factor in achievement. (Johnson Dennis, Jennifer Jo. 2005). Further more, research shows that for effective learning among the learners, interpersonal relationship and cooperative learning are highly accountable. (Kai-Wen Cheng. 2006).

Research concludes that, learning happens constructively. The most effective way a person learns is by constructing knowledge through the world he/she lives in. Clare Stenger, (2003) defines constructive learning as: "learning in an important way depends on what we already know; new ideas occur as we adapt and change our old ideas; learning involving ideas rather than mechanically accumulating facts; meaningful learning occurs through re-thinking old ideas and coming to new conclusions about new ideas that conflict with our old ideas. Constructivist teaching fosters critical thinking and creates motivated and independent learners".

As such, there is a democratic environment in constructivism classroom. (Clare Stenger, 2003). The activities in the classroom are student-centered and the teacher is a facilitator. Constructivism paradigm is changing our traditional methodology of teaching. Constructivist encourages students to be actively involved in the knowledge process. This theory encourages learners and teachers to take advantage of technological advances and utilize it in the classroom for more knowledge gain. *Copyright: Qais Faryadi*(2006).

In fact, multimedia when it is combined with proper teaching materials can be an excellent substitute to the present traditional methods. "Multimedia can be an effective instructional medium of delivering information because it enables the teacher to represent the information in various media via sound, text, animations, video and images" (Tse-Kian Neo (Ken) & Mai Meo 2004).

Thus, learning with multimedia is promising and evolving. It has introduced an important methodology of learning to our very teacher-centered environment with a great force. It has changed teacher's perception as well as learner's about learning. Study indicates that (Mai Neo 2005) web-based multimedia mediated instruction based with constructivist paradigm motivates learners to work in a pair and construct their own solutions to problems. (Mai Neo 2005). Multimedia motivates learners to continue learning and obtain knowledge faster and above all sustain the knowledge gained.

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Reference:

Clare Stenger, Bernadette Garfinkel.(2003). How the Constructivist Approach to Learning Can Be Used to Attain academic Standards? Glen Forest Elementary School. Fairfax Country.

Glenda C. Rekes, Valerie S. Fields, Karee E. Cox. (2006). *The Influence of Teachers' Technology Use on Instructional Practices*. Journal of Research on Technology in Education. V.38, Iss 4: pg. 409.

Johnson Dennis, Jennifer Jo. (2005). *Authentic Instruction: A Comparative Case Study of Three Urban High Schools*. DAI-A 66/02, p 474.

Kai-Wen Cheng. (2006). Does Cooperative Learning Enhance the Residual Effects of Student Interpersonal Relationship Skills? A Case Study at a Taiwan Technical College. Journal of American Academy of Business, Cambridge. Vol.10, Iss. 1, pg. 312.

Ken Neo Tse-Kian. (2003). Using Multimedia in a Constructivist Learning Environment

in the Malaysian Classroom. Australian Journal of Educational Technology. Multimedia

University Malaysia.

Mai Neo. (2005). Web-enhanced Learning: engaging Students in Constructivist

Learning. Campus-wide Information Systems, V.22, n1, pp 4-14.

Richard E. Mayer. (1999). Multimedia aids to Problem-solving transfer. International

Journal of Educational Research, 31. 611-623.

Richard E. Mayer. (2003). The Promise of Multimedia Learning: Using the Same

Instruction Design Methods Across Different Media. Learning and Instruction 13, pg

125-139.

Susan Mandell, Dennis H Sorge, James D Russe. (2002). TIPs for technology

integration. Tech Trends. Washington: Vol. 46, Iss. 5; pg. 39.

Tse-Kian Neo (Ken) & Mai Meo 2004). Classroom Innovation: Engaging Students in

Interactive Multimedia Learning. Campus-wide Information Systems, v. 21, n3, pp. 118-

124.

Yates, Robert, Rhett Coleman. (2005). Analyzing Traditional-based teaching methods

versus technology-based teaching methods in Collegiate Aviation Classroom. DAI-A

66/04, p 1268.

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