DUAL CODING: TRADITIONAL AND MULTI-MEDIA TEACHING METHODS

by:

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Teaching methods employed by various educational levels and institutions rely on the learning systems and comprehension of students. In 1960s, Allan Urho Paivio, a psychology professor at the University of Western Ontario in Canada, introduced the system of Dual Coding Theory (DCT), explaining the relation between cognition and the mind (Mark Sadoski, 2009).

Sadoski (2009) noted that DCT or the theory of visual imagery learning has answered with certitude the problems of educational institutions on how to design proper teaching methods, especially for students who have comprehension issues and problems. In his theory, Paivio (1986) explained that learning and/or comprehension depends on two cognitive subsystems: “one specialized for the representation and processing of nonverbal objects/events (i.e., imagery), and the other specialized for dealing with language.” He further postulated that the representations can be verbal and non-verbal. Verbal representations are called logogen, or the language, while the non-verbal representations are known as imagens or the images that demonstrate clearly the information. The logogens and imagens are processed together by the mind, to pave the way for easier understanding and comprehension.

The DCT and further studies become guide to the traditional teaching method, so that educators would know how to help students easily understand the topics. Most educators have been using the traditional teaching method, which includes the use of chalk-board, flash card
technique, picture parade, visual aids using Manila papers and brain storming questions. Throughout the years, the teaching method evolve, incorporating the use of multi-media equipment like power point presentation, projector, projector Screen, netbook, computer, Internet and also brainstorming and learning modules. Most of the teachers now include the new design of teaching methods in their classes, observing how this help students in better understanding the topics discussed. The use of the multi-media method in addition to the traditional design of teaching makes the learning process easier for the students.

As stipulated by Richard E. Clark and Terrance G. Craig (1992), the multi-media learning effects is both additive and multiplicative. Clark and Craig (1992) cited that the additive assumption is that the instructional multi-media, if used properly, make valuable contributions to learning than just purely instruction and verbal discussion. The multiplicative assumption on the other hand is that the benefits of multi-media are greater than the sum of the benefits of individual media. (Craig and Clark, 1992).

Studies and practical applications have proven that traditional teaching methods is still essential as support to the modern teaching designs, including the use of Information Technology (ICT). With the redevelopment of the Philippine education system, it is highly recommended for educational institutions and teachers to employ both methods of teaching. Millions of students in the country belong to the Net Generation. This type of learning stresses the innovative approach. Discovery learning, student-oriented, materials are manipulated, videotapes, slides, computer aided instruction, Internet – these are all parts of the innovative approach. Students prefer to use On-line services to search a topic instead of laborious leafing through the pages of a book. With
this, teachers should shift from a linear type of learning to hypermedia learning, and because of the rapid advances in information communication technology, teachers should realize that education is not exempted to these advances. This ICT urges teachers to bring down the classroom walls and libraries.