



New Chalk Talk

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Learning and Teaching and then, Learning all over again** (Part I)

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"...there is no teaching anything to wise men...They know everything, --oh, to be sure! -- everything that has been, and everything that is, and everything that, by any future possibility, can be. And, should some phenomenon of nature or providence transcend their system, they will not recognize it, even if it comes to pass under their very noses." (Hawthorne 1852)

I don't think my experience is too unusual in that I started to teach at the tertiary level while in the midst of finishing my thesis and completing the Ph.D. I had never had a course in education or psychology, and was effectively told on the first day, what my teaching schedule was and how to get to the classroom. Of course, it's getting better now, but I remain convinced that most of us taught ourselves to teach - and the quality of that learning experience was (and remains) continually diluted by all the other pressures of academic life.

Of course an academic has to do what an academic has to do – so I concerned myself from the beginning with learning about teaching, again mainly from talking and listening and trying things out in the classroom on my own. I came to enjoy teaching very much so probably spent more time working on it than was healthy career-wise. Finally, after about 25 years I figured I had worked it out and then in 1995 I was confronted with the joy, excitement, horror, fear, and so onof computer-mediated learning. I accept the unalterable fact that to be relevant right now – the computer is essential to the mediation of teaching and learning. What I was finally comfortable with in 1995 must now be re-thought, re-examined, and revised, if not thoroughly re-invented.

I share these thoughts.

Firstly within a decade, my memory bank has been extended with digital media from a basic unit of portable dissemination of 100,000 words (an average book), to a 5.3-gigabyte digital

videodisc (equivalent to 5,300 books) (Murray, 1997). This alone suggests that entering today's workforce or an institute of higher learning requires fluency with both software and computer hardware. Word processors, spreadsheets, databases, search engines and computer-aided design programs are the tools of contemporary workplaces, soon to become ubiquitous.

The effects of new educational technologies, with particular reference to the past decade, have already profoundly altered the experience of higher education. Students now have to learn how "to manage their own learning processes to an unprecedented degree...to swim in a sea of information..." (MacFarlane, 1995). Yet, educators still give lectures that are almost entirely spoken, last too long, show little understanding of how we learn, take place in inappropriate environments, and are rarely differentiated or targeted to a particular group of learners. Producing knowledge is not a matter of stuffing one's head with information. It is complex and subtle, with a variety of characteristics including imagination, hypothesis testing, discrimination, estimation, purpose, and reflection. None of these is a separate stage or skill that can be taught in isolation (Smith 1988: 99).

As part of my "re-tooling experience" new evidence has come to my attention about the nature of intelligence and the range of learning styles. As a result of Howard Gardner's work (Gardner, 1999; Gardner, 2001; Gardner, et.al. 1996); I have come to accept, in principle, the notion of multiple intelligences as a working hypothesis in the classroom. Gardner's multiple intelligences are:

1. *Linguistic: People with this kind of intelligence enjoy writing, reading, telling stories or doing crossword puzzles. Micro-processing and accessing libraries and datasets come easy for this group.*
2. *Logical-Mathematical: People with primary logical intelligence are interested in patterns, categories and relationships. They are drawn to arithmetic problems, strategy games and experiments.*
3. *Bodily-kinesthetic: These people process knowledge through bodily sensations. They are often athletic, dancers or good at crafts such as gardening, metalworking  woodworking and computer programming.*
4. *Spatial: These individuals construct ideas in images and pictures. They may be fascinated with mazes or jigsaw puzzles, or spend free time drawing, painting, building, or daydreaming.*
5. *Musical: The musically inclined are extremely sound, melodic and rhythmic oriented; usually picking up sounds others may miss. This often provides for discriminating listeners.*
6. *Interpersonal: Individuals who are leaders among their peers, who are good at communicating and who seem to understand the feelings and motives of others and are excellent at collaborative effort.*
7. *Intrapersonal: While they may appear shy or withdrawn, they are very conscious of their own feelings, and are self-motivated. Their abilities are largely independent with a preference to participate without confronting face-to-face environments.*
8. *Naturalist: This group is very adept at discovering patterns in nature's immense diversity, making connections, synthesizing and envisualising the "large picture", setting up expectations and raising questions. Darwin's evolutionary theory, Mendeleev's periodic table, Fibonacci numbers, and the familiar nighttime constellations all provide examples of this ability.*

Intelligence quotient tests (and our examining processes) largely deal with verbal-linguistic and mathematical-logical intelligence. The point at issue is that a basic understanding of multiple intelligence theory should modify lecturer behavior and utilization of computer-mediation. Time spent appealing to, or at least considering, at least two intelligences not associated with

normally perceived intelligence quotients in every presentation given may dramatically improve the necessary connection with learners, whether face-to-face or virtually. **(To be continued)**

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**This is a short synopsis of an earlier piece:

Herb Thompson 2002 "Cyberspace and Learning", *Electronic Journal of Sociology*, <<http://www.sociology.org/content/vol006.001/thompson.html>>

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