

Dimensionalism: Knowledge construction for the 21st Century

Constructivism has been the dominant theory describing how individuals learn for fifty years. Pioneered by theoretical giants like Piaget and Vygotsky, it has been the central paradigm of learning and was compatible to the thinking processes of educators who grew up in a linear thinking world. Constructivism as we know it has entered a metamorphic stage.

Affirming that individuals “construct” their own understandings based upon prior knowledge and experiences, constructivism seems tailor-made for the generation of individuals who are used to thinking from point A to point B. But, like the theory of behaviorism which was dominant before it, constructivism no longer adequately describes the processes by which today’s individuals acquire and use knowledge. The way individuals learn today is different. Perhaps they don’t even learn as individuals anymore! Learning is now a socially-constructed paradigm. Only within the last 20 years has this type of knowledge construction become possible.

Many Americans grew up in a world without instant communication, computers, cell phones, or the Internet. To know something they had to learn it, meaning they had to acquire it and store it in the only place available: the brain. Baby-boomers are quite comfortable with moving from point A to point B, can amass huge quantities of information and “construct” knowledge based upon experiences.

The children of linear thinkers have never lived in a world without computers, cell phones and the Internet. They do not feel the need to hoard information the way baby-boomers did. If today’s learners don’t know something they Google the

information, instant message (IM) a friend, or call someone on their cell phone.

Information, to this generation, is on an as-needed basis.

Non-linear thinkers begin with the need to find information on a particular subject, they Google it, and, in the process of Googling their original subject, they find a related subject. This related subject causes them to look at what they needed in the first place in a completely different context, sending their quest for information on a different tangent. After awhile today's information seeker makes associations they never intended to when they began looking for information on the original subject.

Today's students conduct a web-search for information. This leads them to a particular website, but while there they click on a link that interests them, then another and another, until they are 25 web pages away from where they originally started, and have seen their thinking morph from the original desire to something unique.

Instead of linear thinking they employ non-linear (global or dimensional) thinking featuring knowledge construction far different than what baby-boomers would. People previously had to go to libraries or universities where knowledge was located. Today, people can sit at home and information comes to them. Even in isolation people can build knowledge.

The true power of the new paradigm is seen in the social nature of creating knowledge. Even those declining to participate socially, and can do so because of the Internet, still seek to validate their knowledge through dissemination, either through the Internet or other communication avenues. And, for those individuals who do relate socially with others, the power of the new paradigm is profound. Interacting socially

leads to more knowledge being constructed and shared, which leads to more topics and more construction.

The sheer amount of opportunities for dimensional thinking is astounding. In recent years new ways to collaborate have proliferated. What began as blogs have progressed to programs such as Face Book and MySpace. These avenues provide today's students with seemingly limitless opportunities for collaboration and knowledge construction.