The Points of Viewing Theory for Engaged Learning with Digital Media Environments


The paper follows a pattern of research starting with behaviorism, following through Piaget, AI, Eliza, and PARC, and continuing to today on how cognitive science can continue on into the future. It is purposed that digital media can improve education drastically and how.

I had heard of most of this in my EduTech course in my undergrad but it was a good refresher. Many of the ideas in this paper need this research to validate what most technological minded people already know. Medias are so ingrained in everyday life and there is so much that they already teach us without our knowledge about technology. Using these same methods we should be able to teach and modify behavior in the classroom using multimedia and computer aided instruction techniques.

The computer is a great tool for use of scaffolding. In the zone of proximal development (ZPD) a scaffold is something that holds a student up and then is slowly removed, as they are able to stand on they’re own, similar to a building scaffold. The question of whether this is something a computer can do has been tested many times. In the Alice programming environment scaffolds are used to help the learner, code and then they are slowly taken away. But this is an incomplete scaffold, as it does not keep checking, making sure the user is doing ok. What happens if they still need help? The papers examples are as follows: George Landow’s research in hypertext/hypermedia driven English courses teaching Shakespeare. Using hypermedia Landow allowed readers to find context to their reader allowing them to have a better understanding if they needed it. And CSILE project at the Ontario Institute for Studies in Education (OISE) work in developing collaborative knowledge building environments. “Vygotsky’s construct has been picked up by designers of educational software, in particular the CSILE project at the Ontario Institute for Studies in Education (OISE). At OISE, Marlene Scardamalia–lia and Carl Bereiter worked toward developing a collaborative knowledge-building environment and asked how learners (children) could be given relatively more control over the ZPD through directing the kinds of questions that drive educational inquiry (Scardamalia & Bereiter, 1991). The CSILE environment provided a scaffolded conferencing and note-taking environment in which learners themselves could be in charge of the questioning and inquiry of collaborative work-something more traditionally controlled by the teacher in such a way that kept the endeavor from degenerating into chaos.”

The section of STEM research I found also to be very true. Computing education seems almost universally designed to be taught by what the teacher deems important.

A computer is more of a tool then something that someone writes with because sometimes it writes back. This gives the computer the ability to be a cognitive partner in the educational process. Media studies done by XEROX PARC helped change the way we see the computer as a learning tool.

The computer is a great tool for displaying information but that does not mean the same thing as transferring knowledge. It is important that there are many different forms of learning styles and in design it is important to address these educational differences. We can learn from prior educational designs so we can see what has worked and what has not. An example from the computer science world, Small Talk was a tremendous mistake in the sense that children cannot comprehend object oriented programming, but on the other hand it was a success because it taught us what not to do and lead to Squeak toys and variations from their