

This week I've focused on "Fluency." In particular, I took inspiration from:

"In the case of constructionist games, the learner is involved in all the design decisions and begins to develop technological fluency. Just as fluency in language means much more than knowing facts about the language, technological fluency involves not only knowing how to use new technological tools but also knowing how to make things of significance with those tools and most important, develop new ways of thinking based on use of those tools. Beyond that, game-making activities offer an entry point for young gamers into the digital culture not just as consumers but also as producers" (Kafai, 2006, p.39)

This idea of fluency struck me as another way for us to discuss multi-literacies. Of particular appeal in this quote, is the emphasis on knowing how to make things "of significance" and "new ways of thinking".

Taking a constructionist approach to creating games sounds intriguing as it would provide students with a STEAM infused opportunity that should appeal to a broad range of students. At a minimum, a game includes design, project management, user requirements, development, testing, deploying, possibly even supporting a creation – all while learning as a team and learning to be a team. Keeping in mind that we bring up design and development it is not just about code, but also story, character, script, art, music and other "softer" skills that are needed to make an interesting game. In such an environment, we build our fluency in one or more domains, with the cross-functional team pulling and stretching the team members. This broad set of skills and the demands of operating as a cross-functional team (ideally building T-shaped individuals) goes a long way to overcome challenges such as:

"One of the worst things we do in our schools is compartmentalize. We cut things in bits. One of the worst cuts we make is dividing the aesthetic from the knowledge, from the science. This is a disaster, because the source of the children's energy is very largely in two areas that we see here: their social relations and their aesthetic drive. This is what produces the energy – and we cut this off" (Papert, 1990).

Which makes for an interesting connection to comments from Don Norman in the webcast from week 2. "People used to say, "Norman's OK, but if you followed what he said, everything would be usable, but it would be ugly." (Norman, 2003). Would we play games if they were "ugly" or didn't have the aesthetics that draw us into the game? Similarly, would we play games that were so poorly built that they crashed all of the time?

And, the world is recognizing that we need diverse skills and backgrounds to succeed with technology. For instance, Brad Smith an executive at Microsoft has recently stated:

"At one level, AI will require that even more people specialize in digital skills and data science. But skilling-up for an AI-powered world involves more than science, technology,

engineering, and math. As computers behave more like humans, the social sciences and humanities will become even more important. Languages, art, history, economics, ethics, philosophy, psychology and human development courses can teach critical, philosophical and ethics-based skills that will be instrumental in the development and management of AI solutions" (Feloni, 2018).

And in wrapping up, I wanted to highlight this guidance from Papert on the relationship between Constructivism and Constructionism:

"Constructivism is the idea that knowledge is something you build in your head. Constructionism reminds us that the best way to do that is to build something tangible – something outside your head – that is also personally meaningful" (Papert, 1990).

References

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