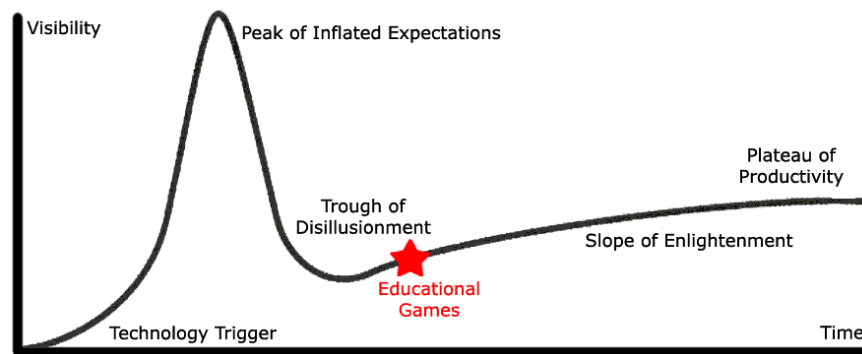


Educational Games: Jumping out of the ‘Trough of Disillusionment’

Searching the terms “video games” and “learning” on Google brings up hundreds of results. Articles with titles such as “Video games ‘stimulate learning’, or “What video games have to teach us about literacy and learning” pop up, and what all have in common is that they all highly praise using games to teach. The educational games industry is a fairly new field, but using games to teach is slowly starting to become a normal occurrence as computer and video game technology becomes cheaper and more integrated into mainstream society. While the field is quickly growing, these games have also always faced a number of setbacks, as people questioned the true value and the need of using games to teach. My view is that there is no question on their usefulness. Educational games are a perfect example of a type of technology that has hit the ‘Trough of Disillusionment’¹ on the hype curve.



When I attended the Serious Games Summit at GDC this year, I noticed a lot of complaining going on about the direction of educational games² by educational game makers. It seemed as if all of the games being created were stuck in this vicious cycle, where the funding of educational games was decreasing because the quality of the games wasn't as high as other commercial games, but the reason for that was because they didn't have more money to make them better. These developers knew that educational games were still an untapped market, but they were still working to figure out what the next big step was. Another step adding to the disillusionment just recently occurred with a study conducted by the U.S. Department of Education. They just published results saying that they felt educational software had “no significant impact on student performance³”. These are crucial findings, because the Department of Education is one of the primary decision makers in deciding what and how to teach American children.

¹ As based on Gartner's Hype Cycle – <http://www.gartner.com/pages/story.php.id.8795.s.8.jsp>

² In this paper, I define the term ‘educational game’ as any game that is or was used as a learning tool, whether it was or was not an intentional part of the game design.

³ Paley, Amit R. *Software fails as student aid, report finds: Technology had no major impact on performance federal agency says*. The Washington Post. April 5, 2007. Retrieved from Indystar.com

Educational games began to become more mainstream during the mid eighties, with the development of games such as 'Oregon Trail' and 'Where in the World is Carmen Sandiego.' Their popularity soared because not only were they educational, they were extremely fun too. As technology improved, so did the graphics, game mechanics, and accessibility. By the mid nineties, computers were being used at school and in many peoples' homes, and these were the games that teachers and parents bought for their children. During this time, 'point and click' adventure games on the PC were enormously popular as well, and the developers of 'Oregon Trail' or 'Carmen Sandiego' were able to maximize on this popularity by using the same type of game play. At the same time, more and more families began buying console and computer games for their homes, and children started playing these games for hours, many times ignoring schoolwork. Educators began to realize that combining computer games and educational content would be a great way to teach. This finding caused a 'Peak of Inflated Expectations.' During the next decade, hundreds of games started to show up as educators and game makers began to experiment with different genres and mediums to teach. Games were based on everything from television shows to books to popular computer games.

Unfortunately, as technology advanced even more, educational games did not. Looking online today, many of the educational games are still 'point and click' adventure games on the PC. This is fine for younger kids, but more and more children today are playing with their PlayStation or Xbox, not their computers. Moreover, more children are becoming hardcore gamers, and they are a special group that requires much more complexity in the types of games they play to keep their interest level up.

These issues caused the hype curve to drop, creating the 'Trough of Disillusionment'. People began to realize that not all games could be educational, and that all educational games were not necessarily fun. Consequently, some began to generalize these views to all educational games. While 'Carmen Sandiego' and 'Oregon Trail' were games that were 'foundational' in both game play and educational content, most games have not been made in the same way. The ones that have managed to use both educational content and good game mechanics as the foundations of the game are the ones that have become the classic games. These were the games that kept coming out every few years with a new edition, and are still used in schools and homes all over the country today. Others have received fame, such as ETC's own Peacemaker, but most of these types of games have been so low budget, they weren't able to market themselves for a mass appeal.

Today, many educational games are being guised as foundational, but are actually decorative. I believe that there are two main types of educational games being created today. The first is where the content of the game is decorative. These types of games are the 'commercial off the shelf games' being used in schools to teach. These games weren't designed to teach anything, but accidentally did. Some of these games have worked very well, such as teaching architecture through a game like 'Sim City' or using 'Civilization III' to teach history, while others did not, such as using Unreal Tournament to teach teamwork. The second type is where the game play is decorative. They are

the programs that many people mistakenly call “games”, but actually are in fact interactive learning experiences. Examples of these types of games are ‘Math Blaster’ or ‘Reader Rabbit’, where kids get the opportunity to answer math problems or vocabulary questions in an interactive way, but no deep level of game play is occurring.

I feel today, the path of educational games is still slightly in the ‘Trough of Disillusionment’, but is inching its way towards the ‘Plateau of Productivity’. More and more schools are starting to use games as part of their curriculum, and are trying to figure out what the right balance is in using games to teach. They are also beginning to realize that not all games are meant to teach things. All educators and game developers need to realize this so that instead of worrying about if they are doing the right thing, they can instead figure out which methods are the best, thus creating a quicker track to get back on the ‘Plateau of Productivity’, or a place that is a good balance of using games to teach.

A good way to get out of the ‘Trough of Disillusionment’ can be to incorporate the idea of transmedia worlds to increase popularity of an educational game. ‘Carmen Sandiego’ is a good example of a transmedia world, because it has morphed into television shows and books as well. Creating a good foundational educational game with transmedia worlds can be very powerful in keeping children interested and engaged. Creating product lines and having good marketing strategies may be a good way to get more funding when making games as well. Additionally, game designers need to get more innovative when making an educational game. Exploring new game mechanics hand in hand with the content of the game may help make the educational aspect more foundational rather than decorative. Finally, game designers should explore new mediums to find ways to present educational content better. As the technology gets better, the games should too. Console games are much more popular than computer games today. The game ‘Brain Age’ for the Nintendo DS was a big hit and they did not spend much time developing any sort of interesting game play. Parents are always looking for ways to make their kids smarter, and are willing to spend money on it too. Many large gaming companies are not willing to take the risk to make educational games, but perhaps spending a little more time developing it to be good may boost their sales to a new level.