

Free argumentative essay about technology in the classroom: using digital game ba...

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" Anyone who makes a distinction between education and entertainment does not know the first thing about either one." - attributed to Marshal McLuhan (Felicia. 1)

Technology is a ubiquitous entity, existing and interacting within the daily lives of billions of people globally. Technology is constantly outdoing itself, with new versions of the latest gadget appearing every few months or less. The latest tablet or phone grabs the attention of the public sphere, enrapturing the masses with the latest capabilities and capacities of the hottest device. As a society we are constantly connected to our technology, as it touches most aspects of our daily lives. With so many different tools at our fingertips to make our lives easier, there are still certain areas that remain behind when it comes to the valuable and advantageous aspects of a technological interface. Schools often still lag behind when it comes to the integration of technology and learning. Recently, over the last decade, the study of digital game based learning through video games has become a hot topic. Studies show that with proper integration into the school curriculum, the use of digital video games as an educational tool can prove beneficial to the learning process of high school students and students identified as having a learning disability. Many schools and studies are just beginning to understand the potential benefits digital game based learning offers for students. Luddites, however, continue to resist the implementation into the educational curriculum. But when properly introduced and the proper knowledge instilled in its users, this technology will provide the basis for the skills students and teachers need to survive in our complex, multi-faceted, technology driven economy, as well as allow educators to connect with

students at a more familiar level and encourage stimulus learning in students who are otherwise losing their traditional education enthusiasm. Digital Game Based Learning (DGBL) is a promising, newly effective method that integrates the use of video game technology with traditional teaching and learning methods. Though we informally learn how to use the technology, it is important to understand how it can be integrated into a curriculum to achieve educational goals. Over the last two decades, studies of how technology can be used within an educational curriculum have appeared with increasing regularity. Studies in distance education, effective military training methods and learning assessments have shown that the use of digital games can be a beneficial tool to educators in teaching the curriculum. (Felicia. 1) The development of DGBL as an educational tool has multiple benefits to both the teacher and the student. This method of digital learning has proven effective in stimulating students' interest, and sustaining that interest for an extended period of time. DGBL also supports the development of cognitive and social skills by taking advantage of the technologies natural stimuli. Since the 2000's, video game studies have been employed to teach students in varying subjects like science, literature, engineering, language, history and geography. (Felicia. 2. 2) Critics of the implementation of digital based learning within the curriculum do however provoke valid counter-arguments. How do we utilize the beneficial aspects of video games without compromising an intellectually based educational system? There are different steps and procedures involved in the proper integration of DGBL into a proper educational plan, which when used properly can be of great benefit to students and educators alike.

One of the most prevalent concerns of video game critics is that of addiction leading to violent behaviours in youths. With the newspapers (which are often digital now) providing continuous and almost instantaneous updates on horrific incidents of school shootings and their depressive perpetrators, blame often falls on their violent video game habits. In order to combat the critics of DGBL, proper education as well as best practices in implementing the technology is a must. The support of proper gaming habits helps students develop a safe and non-addictive relationship with this technology. In order to promote healthy gaming habits, educators and parents alike should monitor and limit use. With the proper education on game ratings and quality, and supervision ensuring that gamers maintain a healthy relationship with this technology, the beneficial aspects of digital game use can be used both inside and outside of the school curriculum. Game ratings by governing boards such as ESB (Entertainment Software Board) and PEGI (Pan-European Game Information) should be implemented to ensure that appropriate video games are being chosen for proper age groups or individuals potentially at-risk of developing an unhealthy addiction to the digital software. Though studies have shown that there is no direct causality link between video game addiction and violent, destructive behaviour, ensuring the regulating of game time, exercising, taking regular breaks, playing in well-lit rooms, staying at an appropriate distance away from the screen, playing with peers of the same age, and following game manufacturers' recommendations are all best practices that should be implemented. (Felicia. 2. 2) The ability to properly balance a healthy and social lifestyle is important when using any form/type of digital video game

to prevent addiction or unhealthy behaviours. Being aware of the advantages and the limitations of DGBL is the first step to understanding and implementing it successfully.

Not all digital video games are suitable for educational learning. There are multiple factors that should be taken into consideration when using this technology in the curriculum. Games like Call of Duty, The Evil Within or Grand Theft Auto 5 would probably not accomplish much in the educational realm of DGBL. There are many ways educators can integrate digital gaming into the classroom though, without relying solely on popular store bought games. When deciding on a particular game to use, educators need to understand that DGBL occurs at different levels for different individuals. Studies show that learning does not always occur during play, and that different types of games promote different types of cognitive skills. For example, Role Playing Games (RPGs) and Real Time Strategy games (RTS) have been successfully used in methods of collaborative activities and the promotion of strategical and critical thinking skills. (Felicia. 2. 2) On the flip-side, action games help develop skills in declarative and procedural knowledge. Other gaming formats like 3D multi-user virtual environments (MUVE) have been utilized effectively in promoting scientific enquiry skills. (Felicia. 4. 1) When choosing a game for DGBL, an educator should take into consideration usability considerations like connection speeds and graphic interfaces, and whether it includes valuable educational content like help mechanisms, clear objectives, progression and feedback, and a link to the topic of the learning objective predefined by the educator. (Felicia. 4. 5) This will ensure that the digital video games are appropriate for the educational

level and age for the curriculum that it is needed for.

The use of technology in the classroom also drastically alters the way that teachers teach. DGBL offers educators highly effective ways to reach different types of learners and assess student understanding through multiple means. The IEAB puts it very succinctly in their paper “ Learning in the 21st Century.” We need to develop ways to teach students on their own terms. (International Education Advisory Board. 1) As we are so ingrained in a technology based culture, it is futile to presume that old-fashioned methods would continue to be effective in an otherwise ever-evolving society. Utilizing new and effective teaching methods like DGBL eliminates the logic of cookie-cutter teaching, an out-dated mantra that one method of education should work for every student. Traditional methods of classroom education, where students merely sit and take notes while the professor lectures at them are quickly losing their effectiveness on campuses across North America. It is time for a new way of learning that stimulates students’ critical thinking skills and offers them interactive ways to become more interested in their subjects. Technology is a constantly evolving practice, and the integration of this technology into the classroom goes above and beyond teaching basic computer skills. Studies show that the ability to properly ingratiate technology into the classroom will encourage and support four key components of effective learning for students. (Edutopia, Why Integrate Technology?) Its use teaches active engagement, participation in groups, frequent interaction and feedback, and connection to real-world experts. By using hardware and software that youth can relate to on a more personal level, it becomes easy and a more enjoyable experience for them to engage

in active learning.

Society is entirely dependent on technology, and having practices initiated in schools allow students to not only be intellectually stimulated, but also to mimic what a traditional office workday would often entail. The online world offers students countless resources for stimulating learning materials. With technology in the classroom, students have more opportunities to learn through methods outside of what would be considered traditional educational means; using images, sound, text, and other creative means in order to grasp concepts in a way that may be unique and individualized to them. (Edutopia, Why Integrate Technology?) New tools also offer students new ways to experiment and to view their results in ways that aid in their unique understanding. As well, because of the level of stimuli in using this method of learning, students are more likely to stay engaged in their work, reducing behavioural problems in the classroom and increasing grades. (Edutopia, Why Integrate Technology?) By stimulating otherwise dulled enthusiasm in a student, DGBL encourages students to learn of their own volition.

In his paper defining how digital games can be used within an educational curriculum, noted author Patrick Felicia cites an experiment conducted on the subject of urban planning. In a 1998 study, the avatar based game SimCity 2000 was used to help students to understand the complexities involved in urban planning:

“ Students were asked to play SimCity 2000 and observe the consequences of good and bad urban planning. Students were then asked to discuss their experience of using SimCity 2000. After playing, most students became

more respectful of urban planners and leaders; they also thought that the game helped them to appreciate the complexity involved in urban planning. They acknowledged that the factual basis of the game helped them understand some principles linked to urban planning.” - (Felicia. 5. 6)

Millennials, the current generation of students born between 1980 and 2000, are hard-wired to their electronics. Whether it is to their phones, music players or computers, this generation of wireless users is evolving every day. Using different methods of technology to stimulate students creates a better overall learning environment. Many teachers of the Millennials however, see a different type of scenario surrounding the integration of technology into the classroom and resist learning about new technology. (International Education Advisory Board. 7) Coming from the Baby Boom generation, many of these individuals are reluctant to adopt any technology too quickly, often resisting these new methods solely because their students are more digitally literate than they are.

Though we informally learn how to use technology on an everyday basis, (think about the average youth’s capacity to quickly and adeptly use the latest gadget,) it is important to understand how it can be integrated into a curriculum to achieve educational goals. The International Education Advisory Board, an association dedicated to monitoring and improving educational curriculums in America, had this to say: ” On average, Millennials spend 6. 5 hours each day saturated in print, electronic, digital, broadcast and news media. They listen to and record music; view, create and publish Internet content; play video games; watch television; talk on mobile phones and instant message every dayThey are practiced users of digital technology

and naturally gravitate towards it.” (International Education Advisory Board. 4)

Using technology in our everyday lives is not the same as using it for educational means. There are many different aspects that must be taken into consideration when implementing the use of digital game based technology into the learning curriculum at any age. The quality, content and use parameters drastically differ when being used for entertainment purposes and when being used for educational purposes.

Over the last two decades, studies of how technology can be used within an educational curriculum have appeared with increasing regularity. DGBL also offers highly effective methods for teaching students identified as having a learning disability. Students with learning impediments like ADHD who experience difficulty in traditional classrooms have had proven high levels of success learning and attaining information through simulation game environments. These types of games; including augmented reality and avatar based modules, are successful because they are designed to support learner access, autonomy, self-determination and goal attainment. (Simpson. 310) Students labeled with a learning disability often exhibit certain deficits such as a lack of fine motor skills and coordination, reading, writing, or math skills, and a lack of social or emotional skills and understanding. (Simpson. 310) Research has proven that all of these can be treated with greater success with a designated, carefully chosen curriculum of video game based learning rather than the traditional classroom environment that sometimes misrepresents where the learning issue originates from.

Studies show that a curriculum of DGBL responds well to the treatment of

multiple deficits in individuals identified as having learning disabilities. Video games often involve simulating precision, speed and coordination of movements, improving ones motor skills. Many games on the market also involve an intellectual understanding of how things work, promoting skills of problem solving and devising strategies. They increase cognitive capabilities by symbol recognition, reading, literacy development, as well as identifying patterns and data. Effective DGBL strategies also increase social development by promoting the fictitious aspect of story-telling, becoming a member of a group, and make decisions that could affect others.

Relatedness is also an important factor in a DGBL environment. The ability for an otherwise unaccepted child with a disability who struggles in a traditional classroom environment is able to play the same games as their peers and potentially millions of other people globally, without being stigmatized by their learning differences. (Simpson. 310) For many who are otherwise unable to participate in an educational curriculum, this is a huge step forward in creating a positive and effective learning atmosphere.

According to a 2006 study, students with other risk factors such as low socio-economic status or minority have drop-out rates of approximately 50 percent. (Simpson. 308) The majority of students who drop out cite being disengaged in school as the number one reason for leaving. The students report that their classes were neither challenging nor relevant to interests or daily life. The implementation of an engaging digital game based learning curriculum has the potential to lower drop-out rates and increase grades of students who would otherwise suffer with more traditional learning methods. These students are disengaged with the quality of education they have been

a part of for so long. (Van Eck. 2) Motivation is one of the most important and key aspects in the learning process and in quality education. We know when students are motivated because they pay obvious attention, start working on tasks immediately, as well as ask and volunteer questions. (Williams. 2)

Learning cannot occur if a student is not properly motivated to do the work and make the effort required. Thus, it is the task of the educational system to evolve with its students and develop new ways of stimulation.

The field of DGBL is constantly endeavouring to find acceptance within the academic community. Researchers still struggle for academic acceptance and credibility in a subject that has met with scorn and clashes against popular media perpetrated visions of "gamers." The other problem DGBL researchers face is are well defined parameters of study. Because DGBL research exists in multiple areas distributed over a number of disciplines like literature, psychology, media studies, anthropology, ethnography, sociology, history, business studies, military tactics, literary theory, educational, theory, instructional technology and computer games studies, they are often seen as a disjointed and unorganized network of computer game players. (Gros. 24)

Instead of looking at all of these subjects as a disjointed narrative of the history of the study of DGBL, educators, researchers and critics should look at it as a series of advantageous results of implementing DGBL into the classroom.

So why should we even bother using games for learning? Quite simply put, play is the best way for our brains to learn something new. We are the creators of our intellectual, technology driven society. We have started ourselves on a road that cannot, and should not be stopped. As a result of

how our society now functions dependently on all forms of technology, people interact with it, and above all, process information differently.

(Prensky. 2) As the infamous proponent of technological evolution Marshal McLuhan states, " We become what we behold. We shape our tools and then our tools shape us." (Prensky. 2) Combatting the evolution of technology is a valiant but ultimately failed endeavour. For millennium, human beings have needed to adapt to survive in the evolving global society. This is merely a new adaptation that must be learned in order to continue onwards and upwards.

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