Improving learning through video games



Abstract

For a long time video games have been considered harmful especially to children and teenagers because they do not give anything productive to the one who is playing. But nowadays everything has change including these stereotypes and myths about playing video games, conversely these video games now are used in different aspects of learning, to stimulate defined areas of our brain. Moreover video games are used as a rehabilitation method for persons with learning problems.

The three most important fields that video games improve are the followings: First of all improve mental agility causing an increase of creativity on the subjects who play, also make them able to take decision faster and process more information with many tasks at the same time. Secondly are very useful to improve memory on students what is essential for our daily life and much more when we apply it to studies because a great memory allows us to process and keep more information. And finally reducing academic stress among students avoiding serious psychological problems like depression, anxiety and low self-esteem.

Video games prove us that they are not so useless after all. And now what do you think about video games?

How Can Video Games Improve Student's Creativity and Learning?

"To be creative means to be in love with life. You can be creative only if you love life enough that you want to enhance its beauty, you want to bring a little more music to it, a little more poetry to it, a little more dance to it."

(Osho, n. d.). Since the creation of video games there has been a big

problem, if they really are beneficial for the people who play them. Most of the population thinks that video games are harmful for the development of children and teenagers, both in social and personal ambits, making them more violent and unsociable. But everything has changed; nowadays videogames are seen like a new method to boost the IQ in different ways. Now there is a wealth of research which shows that video games can be put to educational and therapeutic uses.

Since we were child games encourage us to be more creative and solve problems, is the same with video games, they have a lot of troubles that need to be solve in various situations if we want to keep playing, and this is where creativity has been involved. Furthermore make us take decisions more quickly working with many tasks at the same time without losing concentration.

It is a very efficient method in rehabilitation therapies, with children who present learning problems; these video games introduce some ideas of different aspects that help to capture information in an easier form and help to solve problems of laterality and dyslexia. In the educational area are useful because they teach fast, engaging and proficient ways of learning, making studies more enjoyable to students. Moreover they improve the ability to learn and analyze visual information, help with the learning of a new language and also some video games improve reading skills. In few words, video games can improve students' creativity and learning by stimulating their mental agility, improving their memory, and decreasing their stress level.

Stimulating mental agility with video games

Mental agility is a fundamental aspect at learning time, it helps us to analyze information faster and make us able to work with many tasks at the same time.

Hand-eye coordination

Firstly hand-eye coordination is defined as the use of the eyes to direct muscles towards a task, such as eating or brushing our hair. The vision system coordinates input and sends signals to muscles to make our hands move. This is one of the first aspects that we start to develop in our childhood and also is one of the most important parts of a creative learning. Is essential on children for reading and handwriting because kids also uses their visual system with hand-eye coordination, it can greatly impact their writing skills and handwriting as they use their eyes to guide, direct and control their hand movements across the page as they write letters and words.

Useful videogames to improve mental agility

Mental agility can be improved with different kinds of video games that also increase creativity levels among gamers. According to the article "Scientist Are More Creative Than You Might Imagine" (Ossola, 2014) creativity is innate in humans, but it needs to be cultivated, and is here when video games can help. Games that feature quickly moving targets that come in and out of view, include large amounts of disorder, and that requires the user to make rapid and accurate decisions.

Action video games have been linked to improving attention skills, brain processing, and cognitive functions including low-level vision through high-level cognitive abilities, moreover this kind of video games are beneficial to develop creativity because they requires spontaneous actions.

Video games improve student's memory

Memory is essential for our daily life and much more when we apply it to studies, a great memory allow us to process and keep more information.

Playing video games stimulates memory

Our brain as a muscle needs to be exercised to stay fit, and memory only can be enhanced by exercising it, the constantly exercising of our brain help to develop our processing capacity. Games with a little more problem solving and a few more spatially complex tasks may help train the hippocampus that is the brain area that controls the memory.

How can video games be introduced in classrooms for educational purposes?

We have seen that video games are useful to improve some of our brain areas but, how we can introduce those benefits to educational system? It is simple; in agreement with the video "The Finland Phenomenon" students need new methods to improve their performance in classrooms and throughout all their learning process. Video games can be used as a teaching material to facilitate learning among students, with funny games about different subjects, by this way they can feel involved with games but at the same time they would learn of what they are playing. In the article "The Case for Disruption in Latin America's Classrooms" shows a clear example of

learning through games, with the app of Duolingo Latin-American students learn different languages by gaming.

Additionally "brain games" can be used to train students' memory giving them more facilities at the time of studying; brain games are an advantageous tool to improve our memory and processing capacity.

Less stress, more learning

Stress is a common factor between students; it can be caused by many reasons such as too much homework with short deadlines, difficult subjects or midterms. Therefore is very common for stress to generate psychological disorders such as depression, anxiety and low self-esteem. Consequently academic stress is the cause of all these mental problems, which not allow us to use all our intellectual capacities, causing serious academic problems. If students decrease these high stress levels they would be able to give their full potential on classes.

How can video can video games decrease stress levels?

Playing video games can relieve stress, reduce depression, and make you feel better. Studies reveal that playing violent video games long-term make us able to adopt mental skills to handle stress, be less depressed and get less hostile during stressful tasks. This is provoked because violent games require being more patient than other kind of games. Video games are useful in cases of high rates of stress, helping gamers to have more control during stressful tasks.

Conclusion

Our brain like our body needs exercise to remain fit and video games are useful to train it because they potentially enhance our mental skills, giving us the possibility of be more creative at the same time that we improve our mental skills.

It is vital that we continue to develop the positive potential of videogames while remaining aware of possible unintended negative effects when game content is not prosocial. At the present time, the most popular games are usually violent. Given current findings, it is reasonable to be concerned about the impact of violent games on some children and adolescents.

In addition according to the video "A Young Tinkerer Builds a Windmill" you don't need to be a scientist or an excellent student to innovate or be creative, the only thing that you must have is the desire to succeed and learn everyday a little more.

In conclusion this topic is important because can improve learning process among students in diverse forms making them more creative by stimulating different parts of their brain such as mental agility, boosting our memory and process information capacity and finally reducing stress caused by the academic pressure.