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**Using Gaming to Motivate Today's
Technology-Dependent Students**

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Abstract

In the past several decades, technology has become a big part of American society. It has changed the way people interact with one another as well as how they proceed with everyday life. However, K-12 educational systems have been resistive to change, with most American schools still using traditional instruction in the classroom, consisting mainly of lectures and textbook readings. Lectures are focused on the teacher with minimal student interaction in the discussions. Research has shown that outdated traditional instruction does poorly in motivating the students. However, motivation is a very important factor in academic success. This paper will talk about the use of games in the classroom to increase the students' motivation.

Introduction

Technology such as cell phones, computers, and the Internet, which once were considered luxuries, are now an essential part of society (Adada & Styron, 2008). According to

Escobar-Chaves and Anderson (2008), American youth spend an average of six to eight hours a day using these types of technologies. Technology has changed the way people interact with one another as well as how they proceed with everyday life. The world is changing to accommodate the new way of life but K-12 educational systems have been very resistive to change and still use traditional instructional methods in the classroom (Pannese & Carlesi, 2007).

As noted by Heck, Poindexter, and Garcia (2000) traditional instructional methods consisted of teachers providing lectures and students completing textbook readings. The authors go on to explain that these lectures are heavily focused on the teacher and there is minimal student interaction in the discussions. Prensky (2004) noted that traditional instruction methods lack the motivational incentives needed to keep today's students engaged in the instructional content. Today's world and today's students are vastly different than the way they were a few decades ago. Educational methods that have worked on past generations of students are not as effective for today's technology-dependent generation (Pannese & Carlesi, 2007).

If the way students interact with the world has changed, why is the educational system not changing? K-12 educational systems need to incorporate the use of technology to accommodate the technology-dependent students of today. The use of video games in the classroom may be a method to motivate today's students. These types of games are known as "serious games" whose primary goal is not entertainment, but instead to educate the user (Michael & Chen, 2005).

Video Games as Motivation Tools in the Classroom

Linnenbrink and Pintrich (2002) indicated that motivation is the enabler for learning and academic success.

Learning that takes place is attributed to how well the students are motivated. Based on this theory, if students are motivated they will be successful in school. So what is motivation and how does it work? As defined by Wlodkowski (1999), motivation explains the behavior which is targeted towards a specific goal. It is the driving force behind and explains someone's actions. According to Grolnick and Ryan (1990) the classroom climate and teacher interaction is one of the most crucial roles in how well students are motivated. Students need to be motivated for the students to want to learn in school.

How can a teacher motivate technology-dependent students in a classroom? How can the teachers make the material relate so that the students will want to learn? All of these questions do not have one right or wrong answer. However, the fact is that traditional instructional methods are not motivating today's technology-dependent students (Prensky, 2004). Banathy (1994) indicated that traditional instructional methods are a major reason why the educational systems are obsolete. According to Annetta, Murray, Gull-Laird, Bohr, and Park (2006) K-12 schools are lacking the instructional technology in their curricula which students have grown accustomed to using in everyday life. Educators need to embrace and use technology in the classroom.

So what type of technology is needed in the classroom instruction to increase the students' motivation? To be able to answer this question, it is important to look at what technology-dependent students like to do when they are not in school. According to Lenhart, Kahne, Middaugh, Macgill, Evans, and Vitak (2008), the number one source for entrainment of 12-17 year old students was video games. Their study on American teenagers showed that 97% of teens play video games, with 50% of them playing at least once a day. Increasing technology improvements have made video games highly realistic and engaging which appeals to the technology-

dependent generation. K-12 students do not want to read books or do homework assignments; they just want to play their video games. The fun, challenging, and competitive nature of video games motivate students to want to play them every day (Prensky, 2004). Educators should be taking advantage of the desire of students to engage with video games. If video games are popular among students, why not introduce serious gaming as part of the classroom instructional methodology?

As indicated by Westera, Nadolski, Hummel, and Wopereis (2008), if done correctly, serious games have the capability of presenting the educational material in a way that is more engaging than traditional classroom instruction. Rankin and Vargas (2008) found that students find boredom in the traditional classroom and that serious gaming can offer a fun and engaging environment. Serious gaming offered the motivational boost that students have been looking for (Rankin & Vargas). The ability to relate to video games makes the students excited about the topic (Rankin & Vargas). The positive results of serious gaming were noted by Mayo (2009). Mayo's research indicated that instruction with video games yielded up to a 40% increase in student learning over traditional lecture instruction.

However, the current push on serious games focuses mainly on the educational content of the game while overlooking the engaging parts which make the video games fun for students (McMahon & Ojeda, 2008). Educators are focusing on shoving the educational content in a game by sacrificing the gameplay and engagement. The idea behind this way of thinking is that if the educational content is in the form of a game, this means that it will be appealing to the students. Serious games created with this mindset are unappealing to the students (McMahon & Ojeda, 2008). Instead of using the serious games as the main form of instruction, the games

should be used as an educational aid with pre-existing traditional instruction to engage and motivate today's students. The serious games should be developed to align with the content of the traditional instruction. The serious games need to be integrated with the existing curriculum, instead of being just an addition. Traditional instructional methodology will need to focus on the learning aspects and the serious game on the engagement factor which will motivate the students. For a serious game to be appealing, the fun and engagement needs to be in the forefront with the education aspect well integrated with the gameplay and narrative (McMahon & Ojeda, 2008). This balanced instructional method will ensure that the topic is both educational and engaging enough to motivate the students to learn in class.

Conclusion

Based on the discussions in this article, there is a problem with the current instructional methods that are used in the K-12 educational system. Traditional instruction is outdated and does not provide the motivation incentives for the technology-dependent generation to achieve academic success. The current generation of students spends a third of their day using some kind of electronic medium (Chaves and Anderson, 2008). Mediums like television, the Internet, and video games have become the main source of information and entertainment for today's youth. This dependency on technology has made traditional classroom instructional activities such as one-way teacher lectures, textbook readings, and written homework assignments less effective. A different instruction approach in the K-12 school is needed to accommodate the technology-dependent generation. A possible solution proposed by this paper is to use video games, which have become a popular source of entertainment for today's youth, into the classroom as

instructional aides. These serious games have the capability of providing the needed motivation boost with their fun and engaging gameplay. However, it is not as simple as merely inserting a video game into the curriculum and hoping that it will increase the students' motivation and academic success. For a serious game to work, the video game needs to be developed with content that matches the traditional instruction that is being used in the curriculum. The video game needs to be well integrated the same way PowerPoint slides are integrated with a lecture. Serious gaming will give a well-balanced instruction which contains the desired educational material as well as the motivational boost that is needed for the technology-dependent students.

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