

Chapter 5

How Game-Based Learning Can Effectively Engage Minority Students

ABSTRACT

One of the important questions for teachers and education policymakers is how to engage new age learners, especially minority students, in a meaningful way. Game-based learning provides a platform where minority students can be intrinsically motivated to stay focused. The incorporation of multimedia design and instructional design principles in educational games would potentially help learners comprehend the information and engage in deeper learning. The decision-making process in a game-based learning environment is tied to the neural system of information processing. As research studies point out, the reward that the learner gets is, in fact, the stimulus that with desirable properties that drives behavior. Other than that, the effective feedback in the game-based learning environment has a powerful influence on learning.

INTRODUCTION

Learning using modern technologies is quite different from the traditional educational model. Twenty-first-century learners and, more specifically, minority students are adept at using emerging technologies to access information, collaborate, and share their ideas. They are growing up in a new world where information is no longer restricted to an educational institution's

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libraries, teachers, and books. In fact, modern learners obtain more information outside classrooms than in classrooms. The idea that the “teacher should teach and the student should listen” does not work with digital natives. With smart phones in almost every pocket, access to information and strict pedagogical practices are not what students are looking for. There seems to be a disconnect between what learners want to learn and how they want to learn than what is dictated by the educational system. This disconnect can potentially lead to resistance.

Though modern computer- and Internet-based technologies can potentially help in project-based learning, collaboration, sharing, and authentic focus; it can also be a huge distraction.

The question becomes how do we meaningfully involve the new-age learners immerse and actively participate in their learning activities. It is only when learners meaningfully engage and take keen interest in their learning activities that they can retain the information and able to apply that knowledge in other contexts. Activities that emphasize collaboration and social skills can potentially motivate learners to stay focused.

Learners can be engaged in two different ways: extrinsic and intrinsic (D. Pink, 2009). Extrinsic motivation refers to the learners’ behavior driven by external rewards such as good grades, fame, praise, or assessment practices. Intrinsic motivation originates within the learner. It is the personal interest that the learner takes in engaging the content. This intrinsic motivation has been successfully used in schools for a long time. Research studies provide evidence that intrinsic motivation helps learners learn deeper and be more effective in examination results.

One of the great things about a game-based environment is that the user is free to act. The user determines his or her own actions, but the user also consciously learns to recognize his or her own actions, and action has a meaning (Vygotsky, 1967). At the same time, digital games have great potential for human development, and there is no reason to equate games with just “fun” or being “serious”; at their best, games engage players at a deeper level (Gee, 2009).

Players in games can take advantage of role play. Virtual role play provides an exploratory environment where the player can overcome real-world social restrictions such as playing the role of a doctor or thief which may not be socially acceptable (Lim et al., 2010). From that aspect, games such as Paranoia Syndrome or ORIENT may allow minority students from different cultural backgrounds to collaborate and interact with the mainstream (Lim et al., 2010).

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