

## Chapter 4

# The Role of Emotions in Game-Based Learning

### ABSTRACT

*There is an important relationship between learning (academic achievement) and emotions. Students engagement in classroom activities are usually described as a function of factors such as human needs, affect, intention, motivation, interest, and identity. Research studies suggest that students have a better learning experience when they like the teacher and the curriculum. Several articles have suggested the importance of linking situational and dispositional negative or positive emotions to academic achievement, which suggests that researchers have learned much about emotions and achievement by considering the potential moderating role of effortful control (EC) and the mediating role that cognitive processes, motivational mechanisms, and classroom relationships seem to play in linking emotions with achievement.*

### INTRODUCTION

It is generally agreed that cognition, motivation, and emotion are three fundamental classes of human mental operations (Mayer, Salovey, & Caruso, 2002). Although emotions are considered an integral part of educational settings, existing among both students and teachers, researchers and theorists in current higher education tend to focus mainly on cognition and motivation, leaving emotional experience largely unacknowledged. Most studies of emotions have their “origins” in test anxiety or attributional research on

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achievement (Weiner, 1985) and address a small range of emotions, such as anxiety and shame (Pekrun, Elliot, & Maier, 2006).

Based on these studies, researchers developed a self-report instrument, the Academic Emotions Questionnaire, which measures students' emotions, including enjoyment, hope, pride, relief, anger, anxiety, shame, hopelessness, and boredom. The study found that emotions were related to students' motivation, learning strategies, cognitive resources, self-regulation and academic achievement, and suggested that exert effects on cognitive processing, such as storage and retrieval of information; as well as on motivational mechanisms of intrinsic and extrinsic academic task motivation. However, the relationship between emotions and task performance "is by no means a simple one" (Pekrun, 1992), as positive emotions may have a positive influence on learning achievement, whereas negative emotions may have either negative or positive effects on learning achievement (Govaerts & Grégoire, 2008).

## **MINORITY STUDENTS**

The research discussed above clearly suggests that there is no simple relationship, despite various testing instruments, when we examine the correlation between emotions and learning (or academic achievement). When we interject race / minority students in this inquiry the matter is a little more complex. For example, there has been a great deal of discussion, over the past forty years, about the educational disparities between African Americans and the larger population. Studies indicate that African American students often feel isolated and alienated in predominately white institutions and often do not feel included in the college environment and college community. A previous study examined the relationship between the emotions that students experience in a first-year university course, their approaches to learning in that course, and their academic performance in that course. Both students' approaches to learning and their emotions experienced in relation to their studies are known from previous research to be related to the quality of their learning outcomes. A wide range of variables are also known to be related to the approaches students take to their learning.

Several factors can assist in explaining part of this educational disparity. Most minority students in college come from socially and economically impoverished families and communities. Many of these students are often

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