Chapter XXXIV
Character Attachment in Games as Moderator for Learning

Melissa L. Lewis
Michigan State University, USA

René Weber
University of California Santa Barbara, USA

ABSTRACT

The Entertainment Education Paradigm (EEP) offers a new way to think about education by blending entertainment with educational experiences. Video games provide an excellent format for entertainment education because of both the prevalence and enjoyment of playing video games and the ways in which individuals of today learn. Role-playing games are one of the better game genres for entertainment education. They provide both high levels of entertainment and a strong connection between player and game characters (models) which lead to an increase in learning. Based on the theories of parasocial interaction, identification, and social learning, this chapter offers a measurement for character attachment and introduces this new construct as a moderator for learning in role-playing video games.

INTRODUCTION

The attractiveness of the ability to create and manipulate virtual characters (avatars) in a virtual world contributes to the growing fascination with video games, specifically role-playing video games. The impacts of this ability range from simply more time spent playing to greater enjoyment of game playing. There appears to be a "mental link" between a player and his or her virtual representation in role-playing games that makes this game genre so unique, attractive, and enjoyable. Oatley (1999) hints at this phenomenon with his discussion of internalization and psychological merging of fictional characters' and real persons' minds. We refer to this "mental link" as *character attachment* (CA). In this chapter we present a new measurement for character

attachment and suggest character attachment as an important moderating variable for learning in both entertaining and educational video games. The moderating effect of character attachment in video games on learning is framed by theories of identification, parasocial interaction, and social learning as well as the entertainment education paradigm.

ENTERTAINMENT EDUCATION: A NEW WAY TO EDUCATE?

Using games to teach is not a new idea. We learn a great deal through games, both in and out of school. We learn social rules and norms, we learn information, we learn problem solving, and we learn cooperation (cf. Liebermann, 2006; Prensky, 2005). Education using interactive play can result in a number of positive outcomes that can enhance the learning process, such as reducing hierarchies between those involved, encouraging cooperative learning through the acts of questioning and interacting with other students and teachers, and presenting the idea of learning as being fun (Fredericksen, 1999). Reducing hierarchies and fostering an environment of play can reduce students' fear of failure and encourage teamwork rather than competition. We also know that personal experience is important for learning (Vygotsky, 1997). Rather than just passively absorbing knowledge from an external source, being able to take a more hands-on approach (as in the form of a game) results in the active creation of knowledge.

The Entertainment Education Paradigm (EEP) links the enjoyment of being entertained with the learning and processing of education, and is defined as "the intentional placement of educational content in entertainment messages" (Singhal & Rogers, 2002). There are three pathways for learning involved in the EEP: motivation, reinforcement, and blending.

The motivation pathway uses entertainment as a "door opener" for learning. Individuals might be playing a game for entertainment, but at the same time, this necessarily allocates attention to the educational content, which then leads to an interest in the content and finally processing *of* the content (Ritterfeld, Weber, Fernandes, & Vorderer, 2004; Vorderer & Ritterfeld, 2003). While the content itself might not be enough to guarantee learning (processing), putting it in an entertainment frame enriches the experience. Learning within an entertaining frame is not prescribed, but occurs as a surplus from the voluntarily sought entertainment experience. Though individuals voluntarily seek out the pleasurable experience, they may also process material embedded in the entertainment experience that they would *not* normally seek out.

The second pathway uses entertainment for the reinforcement of learning and hereby enhances the motivation to process educational content. Reinforcement is almost always integrated into interactive video games, be it through scores, feedback of progress in the game, adaptation to skill levels, or rewards in the form of obtaining money, new objects, and so forth. The sense of self-efficacy (the ability to achieve the desired outcome through one's own abilities) and the enjoyment of playing reinforce learning and enhance the potential for a person to seek out more of these entertaining and educational experiences, thus leading to more learning opportunities (Ritterfeld et al., 2004). In addition, children are more likely to talk about games and fun experiences rather than information learned, which also has a reinforcing effect (cf. Ritterfeld & Weber, 2006).

Both the motivation and reinforcement pathway use an additive approach, where education is added to an entertainment experience or vice versa. However, entertainment education is not successful (or not necessary) if a person learns or fails to learn a message regardless of the entertaining content. It may even happen that learning