
84.

Towards an Understanding of Player Decisions and Learning During Video Gameplay

The Gamer Response and Decision Framework

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Abstract

This paper presents the Gamer Response and Decision (GRAD) Framework as an approach to examining video gameplay experiences with an emphasis on gamer interpretation, decision-making, and learning processes during gameplay. The GRAD Framework draws from Rosenblatt's Reader Response Theory and concepts from new literacies, psychology, and game studies. This framework posits each gamer has a unique experience during video gameplay, as all gamers have unique knowledge, experiences, skills, goals, and sense of agency and self-efficacy that influence their interpretations, decisions, and learning during gameplay. The gamer's decisions affect how the game unfolds, which feed back to the gamer in the form of unique experiences and perceptions. Gamers learn about the video games and strategies for success through this recursive process of interpretation and decision making.

Introduction

Scholars have developed a deep interest and appreciation for video games in learning and teaching in recent years (Gee, 2007; Squire, 2011). Gee (2007) illustrates that video games incorporate learning principles, which engage gamers and help them progress during gameplay. Steinkuehler (2007) notes that gamers regularly communicate and interpret a variety of symbols during video gameplay, representing a "constellation of literacy practices." The recognition that people learn and engage in valuable personal and social processes during gameplay is valuable, particularly given the immense popularity of video games.

The Gamer Response and Decision (GRAD) Framework

The GRAD Framework (see Figure 1) was inspired by Reader Response Theory (Rosenblatt, 1995) in conjunction with the recognition of the critical importance of gamers' decisions during video gameplay. It also draws from a variety of ideas from new literacies, psychology, and game design, all to help illustrate the complex processes players experience during video gameplay. (Note: see von Gillern, in press for an in-depth examination of the GRAD Framework and its background.)

Playing and progressing in video games is a learning experience. The GRAD Framework posits this learning process is influenced by the gamer, his or her decisions, and the game. The gamer interprets

the game's multimodal symbols, and makes decisions based on those symbols. The game responds by providing multimodal feedback, which the gamer learns from and uses to make further decisions. This is a cyclical process and a learning experience. Ultimately, the gamer's decisions have a profound impact on how the game unfolds and their overall gameplay experience.

Gamer

Every person, every gamer is unique. Everyone has their own background, their own knowledge, experiences, skills, goals and sense of agency and self-efficacy. These features influence people's perceptions and decisions in life, whether they are at school, the workplace, or even playing video games. Furthermore, these features impact how people learn, as, for example, one's knowledge, skills, and goals influence how they interpret their environment and which opportunities they pursue. Thus, these are all important features that have significant implications for perceptions, decision-making, and learning processes both in everyday life and video gameplay.

Decisions

A gamer's ability to make decisions that truly impact the game sets video games apart from more traditional media, such as movies, books, and music. These types of media are created and authored by individuals and groups, and the audience cannot change the outcome. Video games are different. Decisions are a critical part of video gameplay in which a gamer's decisions (e.g., deciding to take a particular path, upgrading some avatar attributes instead of others, and choosing character dialogue) truly affect how the game unfolds. Furthermore, a gamer's decisions influence which multimodal

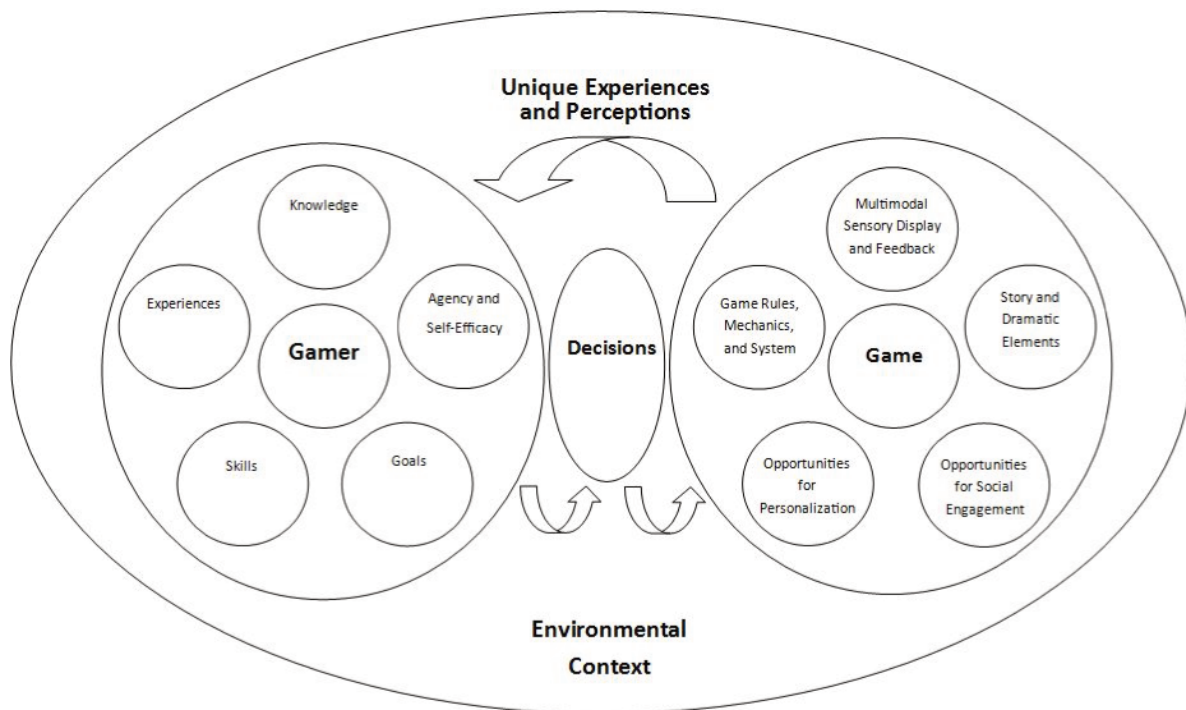


Figure 1. The Gamer Response and Decision Framework (von Gillern, in Press). Reprinted with permission from Simulation & Gaming.

Game

Each game has its own unique combination of features that facilitate gamers' interpretations, interactions, decisions, and learning. Gamers interpret these features through the game's multimodal sensory display and feedback. This information conveys game mechanics, story and dramatic elements, opportunities for personalization, and opportunities for social engagement. In combination, these features can be interpreted as the game's profile. As each game has a distinct profile and each gamer has a unique background that influences his or her gameplay decisions, every one's video gameplay experiences are different.

Conclusion

The Gamer Response and Decision (GRAD) Framework illuminates complex features and processes of video gameplay experiences, including decision-making, multimodality, and learning. Given this, researchers from a variety of fields including education, game studies, and game design may find this framework useful in their investigations of how people play, make decisions, and learn while playing video games (see von Gillern, in press for potential GRAD Framework applications).

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