Empirical Taxonomies of Gameplay Enjoyment: Personality and Video Game Preference

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ABSTRACT

A survey study was conducted to better understand how gameplay enjoyment relates to players’ personality traits and video game preferences. This study demonstrated that the core design elements of games that lead to enjoyment can be empirically identified. Similarly, it showed that considering personality, an individual characteristic, can produce informative insights about how players perceive gaming experiences. Whereas video game research has historically emphasized either games or players in isolation (Juul, 2010), this study is an initial effort towards a holistic approach that considers how design features and player characteristics combine to generate enjoyable video game experiences. Two empirical taxonomies for creating more enjoyable game experiences are presented.

Keywords: Enjoyment, Game Design, Individual Characteristics, Personality, Player Types, Taxonomy, Video Games

INTRODUCTION

Over the past decade, the use of video games for learning, health intervention, social awareness, and other beneficent ends has emerged as a prime interest in research and practice alike (Bergeron, 2006; Bogost, 2007; Gee, 2003, 2007; McGonigal, 2011; Prensky, 2007; Salen & Zimmerman, 2003). However, detailed empirical examinations into the characteristics of games and their players that generate enjoyable experiences are scarce. The core design elements that make video games enjoyable are believed to be empirically identifiable (Quick & Atkinson, 2011). Likewise, the personal characteristics that affect players’ perceptions of games can be empirically determined. Whereas studies have historically emphasized either games or players in isolation (Juul, 2010), this research examines game design and player characteristics in unison. It is important to consider game design and player perceptions in tandem, because both are integral parts of game experiences. A combined empirical understanding of game design and players will enable designers, educators, and other stakeholders to systematically create more effective video game experiences.

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Past Game Design and Player Taxonomies

Several past taxonomies have attempted to describe game design and players. These were primarily born out of professional experience, observation, and theory. A popular classification of gamers comes from designer Richard Bartle (1996). He described the players of text-based Multi-User Dungeons (MUDs) as being achievers preoccupied with gaining points and levels, explorers seeking to understand the mechanisms that operate the game world, socializers interested in person-to-person interaction, or killers imposing their ill will upon others. Similarly, after observing the users of one massively multiplayer online roleplaying game (MMORPG), Squire and Steinkuehler (2006) suggested that players could be categorized as power levelers obsessed with gaining levels through mechanical gameplay or role players interested in maintaining the fiction of the game world. Furthermore, Bateman and Boon (2006) categorized players as being conquerors, managers, wanderers, or participants, while Klug and Schell (2006) grouped players into competitors, explorers, collectors, achievers, jokers, directors, storytellers, performers, and craftsmen. After crossing the works of Bartle (1996), Squire and Steinkuehler (2006), and Klug and Schell (2006) with learning style theory, Heeter (2008) presented an integrated model of play styles and learning styles that featured an expanded taxonomy of 13 player types. While each of these classifications offers intuitive player types, all have yet to be sufficiently validated empirically.

A framework that attempts to comprehensively describe video game design is LeBlanc’s Mechanics, Dynamics, and Affects (MDA). MDA offers a taxonomy of eight terms to describe what makes games fun to players. These are sensation, fantasy, narrative, challenge, fellowship, discovery, expression, and submission (Hunicke, LeBlanc, & Zubek, 2004). While MDA offers a compelling framework for game design and an attractive vocabulary for how fun can be defined, it remains empirically unverified.

Building from MDA, Winn (2008) created the Design, Play, and Experience (DPE) framework to describe the design of serious games, which are games created for primary purposes other than entertainment. DPE expands upon MDA by offering several additional ways that fun can be achieved in games, such as through competition, physical activity, altruism, and learning. Yet, as with MDA, DPE offers a lucid and relevant framework for game design, but is empirically unproven.

In contrast, a few past pursuits have produced empirical game design taxonomies that are relevant in very specific contexts. In a survey of 3,000 MMORPG players, Yee (2006) factor analyzed a set of 40 items inspired by Bartle’s (1996) taxonomy. As a result, he concluded that the components of achievement, social, and immersion represent MMORPG players’ underlying motivations for play. While Yee’s motivation components are insightful and potentially applicable to research specifically on MMORPG players, they may not hold true for or fully explain the motivations of other players.

Wood, Griffiths, Chappell, and Davies (2004) sought to identify the characteristics of games that attract players and motivate them to continue playing. They asked self-identified gamers to report how important a series of game design features were to their enjoyment of video games. Each design feature belonged to one of several categories, such as sound, graphics, or character development. The researchers reported their results on a feature by feature basis, rather than forming a taxonomy. However, King, Delfabbro, and Griffiths (2010) later expanded upon the concept of structural characteristics and provided a five-element taxonomy of video game design features. Their taxonomy included social, manipulation and control, narrative and identity, reward and punishment, and presentation features. Subsequently, Westwood and Griffiths (2010) employed this taxonomy in a study of 40 avid gamers who averaged 11.5 hours of play per week. This pursuit resulted in the definition of six player types: story-driven.

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