

# Chapter 6

## Wee Wii: Preschoolers and Motion-Based Game Play

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### ABSTRACT

*In this paper, the authors specifically focus on the opportunities and challenges presented by the Nintendo Wii to preschoolers in context to three key objectives in order to facilitate game development: First, to understand the range of physical and cognitive abilities of preschoolers in motion-based game play; Second, to understand how preschoolers interact with the Wii; Third, to understand the expectations of the parents of preschoolers with regard to these new gaming platforms and the purchase and play contexts within which game play occurs. In addition to reporting challenges and advantages of the motion-based play for preschoolers, the authors also discuss how the findings of this research were then implemented by the game producers to develop the first preschool-targeted game on the market in the United States.*

### INTRODUCTION

Both traditional and newer media are an increasingly integral part of daily life for families around the world. For example, in the U.S., the average family home comes fully equipped with innumerable electronic and digital choices including televisions, video game consoles, personal computers and mp3 players (Rideout & Hamel, 2006),

often to the delight of the household's youngest members who are eager to explore novel forms of entertainment and play. Media use is no longer an option; it is an integral part of everyday life for these families. As the media landscape becomes increasingly varied due to the infiltration of innovative technologies, it is crucial to evaluate how new household adoptions affect the lives of those who consume them. Even when new purchases are made for adult family members, the children are often affected – be it via mere exposure or

DOI: 10.4018/978-1-4666-0029-4.ch006

active investigation. Such is particularly true of gaming devices. Given that, over a third (36%) of four to five year-olds in the U.S. have played console video games and almost a quarter have played handheld games (NPD, 2008), it becomes important to assess further the context for preschoolers' play, particularly since the majority of gaming equipment is designed for a much older target audience.

In this article, we examine a specific video game console: Nintendo's Wii. Unlike past systems, this gaming device relies on real-time physical movements to dictate on-screen activity. Released in North and South America in November 2006, the Wii has been extremely successful, outselling competitors like Microsoft's Xbox 360 and Sony's PlayStation 3, prompting its declaration as "the world's best-selling next-generation games console" (Sanchanta, 2007). Since its release, sales have remained relatively constant -- a rare feat in the fast-changing consumer electronics space (SlashGear.com, 2009). The Wii's success has been partly attributed to its ability to attract non-traditional gamers, such as children, mothers, and senior citizens, as opposed to the narrower segment of more traditional or hard-core gamers.

Unlike most traditional academic research, the research reported here grew out of a concrete commercial need. The game and digital product production team for Nick Jr., the preschool arm of Nickelodeon, recognized the possible business opportunity in the preschool space created by the advent of a motion-based gaming platform. They saw the Wii as having special potential for their audience, but also realized that in order to create a game that would both engage their audience and be developmentally appropriate they needed to understand how preschoolers were already interacting with the platform as well as what boundaries would be set on their creative direction due to the developing physical, motor, and cognitive abilities of 3-5 year olds. Moreover, they were also interested in understanding the potential for creating games for preschoolers on

other platforms, particularly the PlayStation 2, Nintendo DS and mobile phones. To better understand this potential consumer group and their needs and motivations for playing games, they turned to the Nickelodeon Kids & Family Group Consumer Insights research team.

In many respects, the investigation that grew out of this business decision turned traditional game creation and research on its head. Most game developers create games first and then test them with the consumer later to see if the user experience is of sufficient quality for release. In this case, however, the game producers started with understanding the consumer (preschoolers and their families) and then created the game around their abilities, interests, and preferences, engaging in both exploratory research before the game was designed and formative research during the design process.

There were three key objectives for this research. The first was to understand the range of physical and cognitive abilities of preschoolers in the context of motion-based game play. Knowing that a 3 year old may differ greatly in his/her game play abilities when compared to a 5 year old suggests that some game functionalities may be better for younger children than others. In addition, extensive previous internal user experience research at Nickelodeon in the area of preschoolers and gaming had shown us that there are other critical factors, such as gender or birth order, that affect preschoolers' adoption of gaming technologies and their subsequent performance with the games. The second objective was to understand how preschoolers interact with the Wii, specifically how they handle the various forms of play and game mechanics offered by the games currently on the market for this platform. The final objective was to understand the expectations of the parents of preschoolers with regard to these new gaming platforms and the purchase and play contexts within which game play occurs. Our goal was to investigate these considerations in an exploratory manner.

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