

## Chapter 63

# Measuring User Experience in Board Games

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### ABSTRACT

*Measuring user experience in board games is broadly unexplored with research mainly focused on digital games. This paper assesses the suitability of using a questionnaire, developed for digital games, for use on board games - thus providing a common measure of user experience between board and digital games. The study involved play testing a themed board game with undergraduate computing students and alumni, measuring user experience via the Games Experience Questionnaire whilst testing for reliability and validity. Findings obtained high scores in both criteria, suggesting that the GEQ is a suitable tool to measure user experience in board games and thus a valid candidate for comparing game design across varied game media such as digital and board games.*

### INTRODUCTION

In the last decade, the convergence of media has seen storytelling evolve from a cross-media approach, which adapts the same story to different media, to a transmedia one that uses the varied media to tell different, but consistent, stories within the same fictional universe (Jenkins, 2003, p. 3). Games may become one of the principal media in the transmedia storytelling toolset (Van Lierop & Kadison, 2012, pp. 7–9) but their interactive nature – so diverse in comparison with traditional narrative media such as film, novel, and theatre – provides a challenge in keeping their design co-

hesive to the rest of the story, prompting Beddows to suggest the need for more research on the role of game-play as an alternative to other narrative forms, as well as the audience's level of engagement with it (Beddows, 2012, p. 48).

Games in themselves are also transmedial (Juul, 2005, p. 7) in that game-playing may employ different media: dice games, card games, board games, table top games, digital games, etc. Indeed different media may be used to provide play within the same transmedia game world. Unlike Transmedial Access to Games, which is the ability to enter the same game world through multiple devices (Bardzell, Wu, Bardzell, & Quagliara, 2007, p. 307),

the interest here is to provide disconnected game experiences across different game media within the same game world which however provide a cohesive and consistent user experience.

This study aims to suggest an instrument that can reliably and validly measure user experience that can transcend game formats in order to assist in the design of transmedial games that fit within the target user experience. The research work disclosed in this publication is partially funded by the Malta Government Scholarship Scheme grant.

## **LITERATURE REVIEW**

Facilitating a target user experience is the main responsibility of game design (Costikyan, 2002, pp. 32–33), and provision of meaningful play experience is a measure of success for game design (Salen & Zimmerman, 2004, pp. 33–35).

Meaningful play has value, is logical, and worthwhile (Breum & Midtgaard, 2013, p. 14) which is achieved through:

- Immersion and suspension of disbelief by being coherent and continuous;
- Mental catharsis and relief of suspense by puzzle-solving and answering mysteries;
- Empathy, admiration and other emotional feelings through character constancy across platforms (Breum & Midtgaard, 2013, pp. 83–84).

In the context of digital games, measurement of user experience has been broadly explored since interest in the area began in 2004 (Ye, 2004); particularly through the use of heuristics (Desurvire, Caplan, & Toth, 2004) and questionnaires such as the Games Experience Questionnaire (IJsselstein et al., 2008) and the recent adoption of the User Engagement Scale (O'Brien & Toms, 2010) in games (Wiebe, Lamb, Hardy, & Sharek, 2014).

Research expanded into augmented table top games (Magerkurth, Memisoglu, Engelke, &

Streitz, 2004, pp. 7–8) and their user experience (Al Mahmud, Mubin, Shahid, & Martens, 2008), where the taking over of the operational aspects of the game sometimes led to frustration in the players (Pape, 2012, p. 6). Meanwhile, traditional format board games are attracting new fans from video game players ((Freeman, 2012, para. 5), (Martens, 2012, para. 8)) especially games that employ strategy in preference to chance, such as *Space Alert* (Chvatil, 2008) and *Mage Knight* (Chvatil, 2011). Such games are very complex and demand deeper engagement of the player with the game's story.

However, there is no apparent work on the measurement of user experience in traditional board games. I argue that consideration of user experience in board games is necessary in order to quantify and compare the suitability of specific board game mechanics to transmedial game design that are expected to provide a meaningful user experience, and this study aims to cover such a gap in the literature by finding a cross-media method of user experience measurement that can provide a consistent means of comparing game design between digital games and board games.

## **User Experience**

User experience is a subjective interpretation of one's interaction with a product (Geven, Schrammel, & Tscheligi, 2006, p. 79). Various attempts have tried to decompose a game's user experience into psychological aspects of the player (Komulainen, Takatalo, Lehtonen, & Nyman, 2008, p. 489) such as flow (Csikszentmihalyi, 1991), (Sweetser & Wyeth, 2005) and immersion (Mäyrä & Ermi, 2005), which was further sub-divided into three levels: engagement, engrossment, and total immersion (Brown & Cairns, 2004, pp. 1298–1299).

Meanwhile, Calleja hints at a spectrum that is larger than just immersion. His Digital Games Experience Model measures the level of involvement of the player with the digital game across six frames at both motivational and involvement levels. These six frames cover tactical (goal

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