



# The Development of the Online Player Type Scale: Construct Validity and Reliability Testing

Nazire Burçin Hamutoğlu, Kırşehir Ahi Evran University, Kırşehir, Turkey

 <https://orcid.org/0000-0003-0941-9070>


Murat Topal, Sakarya University, Sakarya, Turkey

Yavuz Samur, Bahçeşehir University, Istanbul, Turkey

 <https://orcid.org/0000-0003-4269-7099>

Deniz Mertkan Gezin, Trakya University, Edirne, Turkey

Mark D. Griffiths, Nottingham Trent University, Nottingham, UK

 <https://orcid.org/0000-0001-8880-6524>

## ABSTRACT

The present study outlines the development of the Online Player Type Scale (OPTS) utilizing a motivational taxonomy developed. This taxonomy was comprehensively reviewed to create scale items, and the conceptual framework of the scale was defined. The study group was comprised of 1,479 students attending grades 5 to 8 of a private school. A purposive sampling method was used to recruit the study group, and playing any videogame frequently was the criterion to be included in the sample. The construct validity and reliability testing showed the OPTS comprised four factors: achievement-oriented (ACH), socialization-oriented (SOC), exploration-oriented (EXP), and competition-oriented (COMP). The Cronbach alpha internal consistency coefficients and composite reliability coefficients were 0.89 and 0.99 for KIL, 0.83 and 0.98 for EXP, 0.83 and 0.98 for SOC, and 0.94 and 0.99 for ACH. It is concluded that the Online Player Type Scale is a valid and reliable instrument for assessing gaming motivation.

## KEYWORDS

Gaming Motivation, Gaming Player Types, Massively Multiplayer Online Games, Online Gaming, Online Player Type Scale, Psychometric Testing, Reliability Testing, Validity Testing

## INTRODUCTION

Videogames are played by millions of individuals all over the world and are types of entertainment digital media which have rules that are independent from the real world (Garris, Ahlers, & Driskell, 2002). With advancements in digital technology, videogames are now more realistic in sound, graphics, and storytelling, and have become increasingly better in simulating reality. Videogames

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can now be distributed and played online via personal computers, mobile devices (such as tablets and smartphones), and dedicated game consoles. One of the most well-known examples of this is the evolution of multi-user dungeon (MUD) games to massively multiplayer online (MMO) games. Although they are similar in gameplay, the main difference between these types of games are that MMOs can support more online players with better graphical interfaces and virtual worlds (Encyclopedia of Science Fiction, 2018).

MMOs are games in which millions of players can assume one of several roles offered by the game simultaneously in virtual worlds. They are games played within a digital environment comprising 2D or 3D virtual worlds where gamers play with others via their avatar (Steinkuehler and Williams, 2006; Yee, 2006b). There are also predefined boundaries and rules within MMOs (Williams, Ducheneaut et al., 2006). MMO games can be complex games that can require thousands of different decisions and making smart choices about character development (Nardi, Ly, & Harris, 2007). A typical MMO player can walk around a virtual world, go hunting, collect plants and mines, go fishing, carry out tasks, fight, beat their competitors, have a job, and/or increase their level to become stronger in the game either alone or with other players (Steinkuehler & Duncan, 2008). Furthermore, players can join several social groups with short-term objectives to more longstanding groups which can extend to real world and where continuous relationships be established (Cole & Griffiths, 2007; Williams, Ducheneaut et al., 2006). MMOs possess multiple types of motivations and actions that can be present in real life but may be realized more easily via gaming in virtual environments.

One of the most important components in gaming behavior is players' motivations and their corresponding actions (Ghuman & Griffiths, 2012). Studies have shown that various types of action and motivations within games are important variables in predicting individuals' levels of having fun while playing games (Bartle, 1996; Lazarro, 2004). Lazarro (2004) claimed there were four motivation types that unlock emotions. These are (i) hard fun (i.e., players having to overcome difficult obstacles to progress in the game in pursuit of winning), easy fun (i.e., players just enjoying the game even if they do not win), altered states (i.e., players engaging in the game because it makes them feel good psychologically and changes their mood for the better), and the people factor (i.e., players wanting to socially interact with others in the game).

Kim and Ross (2006) identified five different gaming motivation types, namely, fantasy, competition, entertainment, social interaction, and diversion in sport video game playing. Yee (2002) conducted research investigating gamers' motivations for playing massively multiplayer online role-playing games (MMORPGs). His research suggested five motivation types; relationship, immersion, grief, achievement, and leadership. Another study by Yee (2006a) on gaming motivations MMORPGs reduced the number of main gaming motivation types for MMORPG players to three; social motivation, achievement motivation, and immersion. Achievement motivation included mechanics, advancement and competition. Social motivation included teamwork, relationships, and socializing. Immersion included escapism, customization, discovery and role-playing.

More recently, Yee, Ducheneaut, and Nelson, (2012) developed the Online Gaming Motivation Scale (OGMS). The scale has a three-factor structure based on Yee's (2006a) research. These factors are (i) social (i.e., players focus on socializing, teamwork while playing), achievement (i.e., players focus on progress completion and competition while playing), immersion (i.e., players focus on spending time exploration and discovery while playing). The OGMS developed based on the self-reports of *World of Warcraft* game players.

Based on SDT, Lafrenière, Verner-Filion and Vallerand (2012) developed the Gaming Motivation Scale (GAMS) to create a standardized tool for assessing gaming motivation. The scale comprised six dimensions including intrinsic motivation (i.e., desire to perform play activity), integrated regulation (i.e., behavior regulated through external means such as rewards), identified regulation (behavior is emitted out of choice), introjected regulation (i.e., the regulation of behavior through internal pressures such as anxiety and guilt), external regulation (i.e., behavior regulated through external means such as rewards) and amotivation (i.e., relative absence of motivation either intrinsic or extrinsic). The GAMS

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