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Investigating the use of digital games by undergraduate students with competitive tendencies and receptive to new digital experiences

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Abstract

Digital media are one of the most important activities among children and young people. Their relationship of players of games to digital technology is becoming more and more prevalent within the school and thus the University. There is a group of young people who are very familiar with games and prefer to use them for learning. Digital games provide players with interactive environments and players are confronted with new competitive experiences. The purpose of this study is to investigate the relationship of a group of 150 undergraduate students (M: 35, F: 115) with digital games. A questionnaire was used to investigate how receptive are undergraduate students to new experiences and competitive tendency using digital games. This research is in progress, so the following results may change. The sample of this research will be increased soon, in order to generalize conclusions. According to the results so far, undergraduate students seem to be very receptive to new experiences offered by the digital world (64,7%). It was also revealed that undergraduate students prefer using digital games guided by their competitive tendencies (61,33%). In addition, a statistically significant difference was reported between genders and competitive tendencies using digital games.

Keywords: digital games, gender, competitive tendencies, receptive to new digital experiences

Introduction

Students nowadays, spend many hours playing digital games and this is a very common habit for them (Hamlen, 2017). The interactivity of the games allows for continuous flow of challenge and competitive situations to be solved by players. The emergence of competitive behavior is seen as an important factor in facilitating strong recognition through new experiences in the digital world (Vorderer, Hartmann & Klimmt, 2003). Recognition is due to the change in players' self-perception during games. When they assume a character or role offered by the game, players are changing their self-esteem by adopting the relevant features. For example, they perceive themselves as more courageous, heroic and powerful when identifying themselves with a soldier, so they are receptive to new experiences (Hefner, Klimmt & Vorderer, 2007). The high level of interactivity that digital games now offer with the use of various electronic media (x-box, wii, etc.) creates a more plausible environment where players are challenged to face difficult situations and make quick decisions about their next moves.

This enhances the feeling of competition, especially when it is possible to participate in group digital games in which there is a direct interaction with the teammates. It would therefore be logical to see competitiveness as a key factor that increases the enjoyment of individuals when playing with these games. The competitive behavior that may occur when people play digital games is related to their social skills and socialization. Data from 98 studies with a total of 36, 965 participants showed that violent digital games increase the chances of aggressive behavior, unlike other types of digital games that promote positive social behavior (Greitemeyer & Mügge, 2014).

Interestingly, in Ewoldsen et al. (2012) survey, participants played a "violent" game in a competitive and competitive environment - cooperatively in the first case and individually in the second. Then, their social behavior was evaluated through a test and the results of that survey showed that the social context is the competitive or competitive spirit, played a more important role than the content of the game. Precisely, in the case of collaborative violent play the actions of "revenge" increased compared to when the players competed with each other (Ewoldsen et al., 2012).

According to Ho-Da Kim & Jong-Deok Kim (2009), who investigated the gender difference, found that using violent digital games increases the competitive tendencies. However, both males and females choose to play digital games as they allow them to change their individual characteristics, making their virtual sex different from the real one by enhancing their self-image.

The exploration of the bibliography gives us contradictory data about the role of gender in online communities, especially in digital games. This field is constantly changing at a rapid pace, following the steps of swift technological developments. In addition, social stereotypes are obvious in digital games, with males being in a position of power. According to Elena Bertozzi's (2012) study, although digital games are mostly designed based on males' world, they nevertheless reinforce females' self-confidence and make them feel more strong and competitive.

The purpose of this study was to investigate the relationship of undergraduate students with digital games and specifically, to investigate how receptive are undergraduate students to new experiences and competitive tendency using digital games.

Materials and Method

Our research questions that have been arisen are the following:

- How receptive are undergraduate students to new experiences to digital world of game offer?
- How frequently do undergraduate students use digital games guided by their competitive tendencies?
- Female undergraduate students or male undergraduate students use more digital games driven by competitive tendencies?

Our sample (sample of convenience) consisted of a group of 150 undergraduate students from the University of Ioannina, (Male: 35, Female: 115). Their age was from 19 (minimum) to 47(maximum) (20±5) years old. The questionnaire was used as the survey method. The questionnaire was in plain language, the questions were formulated clearly and weighted on the Likert scale (1-7). The first part included questions of personal information (age-gender) and questions about the frequency of using digital games. The second part included questions

about the psychological characteristics of players of digital games. SPSS Statistic Software was used to analyze data after coding answers. We defined the number 4 as the average and we called it moderate preference, the values below four minimum preference, and the values above four high preference.

Results - Discussion

The results of this study revealed that undergraduate students are very receptive to new experiences offered by digital world of games (64,7%) as shown in Fig.1. Specifically, females are more receptive to new experiences (67,82%) than males (32,18%). The seven steps of the Likert scale were defined as following: 1-3 little, 4 medium, 5-7 very (Table 1.).

Table 1. Being receptive to new experiences

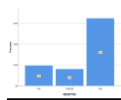| N	Low	Medium	Very
Female undergraduate students	20	17	78
Male undergraduate students	9	7	19

Fig.1: How receptive are undergraduate students to new experiences offered by the digital world of games?
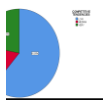

Fig.2: How frequently do undergraduate students use digital games guided by their competitive tendencies?

As it can be observed in Fig.2., 22% of the undergraduate students were found to use very frequently digital games guided by their competitive tendencies, 16,67% medium frequently, and 61, 33% do not use digital games driven by competitive tendencies frequently.

According to chi square test, it was found that there is a statistically significant difference between genders and competitive tendencies using digital games (p=0.000). It was noticed that male undergraduate students do not particularly choose their digital games on the basis of competition. In addition, most female undergraduate students do not choose to play digital games on a competitive basis (82 out of the 115, 71,30%).

A limitation of this research is that here is a big range in the age of the sample, from 19 (minimum) to 47 (maximum) (20±5). This research is in progress, so the following results may change.

Conclusion

In conclusion, it was found that there is a relationship between students who are receptive to new experiences and use of digital games. Specifically, females are more receptive than males to new experiences. The findings of the current study are similar to the literature (Brown, 2006; Kim & Kim, 2009; Bertozzi, 2012; Hamlen, 2017) as it was pointed that digital games enable players to experience new life environments, make decisions and take on new roles. In a society in which females seem to be weaker than males, females choose to feel the gap with their preferences in digital world. Here females seem to be equal heroes as males as it was also noted in the current literature (Gao & Shih, 2018). A statistically significant difference between undergraduate students who use digital games guided by their competitive tendencies and those who don't was noted. Finally, a part of undergraduate students, tended to prefer to use frequently digital games for competition. The sample of this study seemed not to be interested for the competitive environments of digital games, although our references argued that competition in digital games is an important motivation for the players of digital games.

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