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One Game – One Effect?

What Playing “World of Warcraft” Means for Adolescents and Their Development

Florian Flueggen

Victoria University of Wellington,
School of Education,
New Zealand

Dr. Stephanie Doyle

Victoria University of Wellington,
School of Education,
New Zealand

Dr. Hermann Veith

Georg-August-Universität, Institut für
Erziehungswissenschaften,
Germany

Abstract

Playing online computer games is a common leisure activity for adolescents. The aim of this study was to contribute to the understanding of how playing these games influences adolescents' development.

The method used was interviews with six participants who had played the Massive-Multiplayer-Online-Role-Playing-Game “World of Warcraft” when they were adolescents. The transcripts of the interviews were analyzed drawing on grounded theory methods and on factors identified from developmental psychology.

From the analysis it appeared that: (1) all six players had played the game differently and found individual ways to express themselves in the game; (2) these individual playstyles seemed to be related to the players' personalities; and (3) in contrast to common claims in the popular media, playing the game probably supported a healthy development by providing social and personal aspects that their normal lives lacked.

The main implication of these findings is that it cannot be assumed that all players use the same game in the same way, or that one game has the same effect on all players. While it makes research on the effect of games more complex, this observation is essential in understanding the diverse influences of computer games.

1. Introduction

Adolescence is a crucial time in human development (e.g., Berk, 2005; Erikson, 1971) and therefore important to investigate and understand. A new and growing influence on adolescence is that of computer games. The German Institute for Confidence and Trust in the Internet (DIVSI, 2015) found that over 50% of children in Germany had come into contact with and used computer games by the age of 8 years, and Lenhart et al. (2008) have reported that as many as 97% of adolescents (12-17 years) in the USA used computer games.

Especially interesting in this context is the category of *Massively-Multiplayer-Online-Role-Playing-Games* (MMORPGs), as they provide giant virtual environments used by thousands of other players simultaneously and allow, or almost force, users to interact with each other virtually in a multitude of ways. The most widely known and most played game in this category is “*World of Warcraft*” (WoW) with over 7 million active players (Blizzard, 2015; Bradley, 2012).

To date, most studies in this field involve quantitative, questionnaire-based approaches, investigating relationships between player in-game behavior and some form of personal characteristic (Bean & Groth-Marnat, 2014; Graham & Gosling, 2013; Larios & Lang, 2014; Longman et al., 2009). Such studies focus on variables that are assumed to be important and out of necessity predetermine, and limit participants’ response- options. Many studies have been prompted by concern about the violence in video games and the influence this may have on behavior (e.g., Larios & Lang, 2014).

The current study instead employs a qualitative exploratory approach. In a developing area of research, this design has the possibility of uncovering different insights by letting the data lead the researcher (Strauss & Corbin, 1990). The aim and purpose of the current study are to investigate how playing computer games influences the development of adolescents by analyzing when and how they used the game, how they acted and thought outside of the game, what their life-situation was at that time, and what playing the game meant for them. It focused on WoW because of its popularity, because it has many features that make it a good representative for modern MMORPGs, and because of the first author’s familiarity with the game.

2. Background

2.1. World of Warcraft

As of December 20, 2016, WoW has been cited as one of the most popular and successful computer games since it was published in 2004 (SuperData Arcade, 2016). The general design of the game is simple. When starting the game players choose a customizable character with a race and class. By completing *quests* (tasks) and killing monsters - often this is part of the quests - the players’ characters gain experience points, which allow them to increase in character level. As characters’ levels increase they get more status values, abilities, can use better equipment and get access to more content. Only once characters reach the maximum level do they have access to the full content of the game, which is why many players consider the game to really start at that point.

The main activities in the game, besides quests, are

- Player vs player (PvP) activities;
- Dungeons - challenges that usually take about 20-45 minutes and are undertaken as a group of 5 players;
- Raids - challenges that are meant for groups of 10-25 players and often take several hours.

WoW has considerable potential for online social interactions. To support the players playing and working together the game offers real-time chat enabling players to be in touch with each other during the game and a guild-function - making it easy to organize and communicate with larger numbers of players who want to undertake activities together. A “friend”-function enables those who want to play with each other again to easily stay in touch.

When considering all of the details that go into playing a character effectively, and all of the options that players have to interact with other players and the world in the game, it quickly turns out to be rather complex and not many players manage to beat all of the content available.

2.2. Personal Characteristics in Current Computer Game Research

Since 2010 researchers have become increasingly interested in how different personal characteristics correlate with player-related behaviors such as game choice (e.g., Braun, 2016), in-game behavior (e.g., Bean & Groth-Marnat, 2014) or gaming addiction (e.g., Vollmer et al., 2014). The most common personal characteristics investigated are the Big Five (e.g., Braun et al., 2016; Graham & Gosling, 2013; Vollmer, 2014; Witt et al., 2011), probably due to their general acceptance in the research community and especially the feasibility in quantitative studies. The Big Five personality traits are five psychological variables that have been found to describe a person's personality well and to be more or less stable over time for each person. The five variables are *Extraversion* = emotional expressiveness, *Agreeableness* = cooperative and emotional openness, *Conscientiousness* = dutiful, enduring with completing tasks, *Neuroticism* = anxiety, emotional instability, tendency to experience negative emotions and *Openness to experience* = exploring, creative, curious (Oerter & Montada, 2008). All of the before mentioned studies did find correlations between the Big Five and their observed player variables, but most of the reported correlations are - while significant - weak. Due to the chosen research approaches the results tend to not be useful for predictions or for understanding and explaining the dynamics of how the games interact with personal characteristics and why the players behave as they do.

A number of studies provide evidence that links between in-game variables and personal characteristics exist (Graham & Gosling, 2013), that players' personalities do not differ significantly from non-players' (Bean & Groth-Marnat, 2014), and that social interactions in games seem to be able to provide social support or aid with mood repair (Visser et al., 2013). There also is evidence suggesting this influence goes beyond the game and impacts the players' normal lives (e.g., Longman et al., 2009; Rieger et al., 2014).

Such studies raise questions as to how far the influence of playing computer games transfers into the normal lives of players and what aspects of their lives are influenced. It also is not clear whether the personal characteristics cause the differences observed in the in-game variables, or if both, the in-game variables and the personal characteristics have a common predictor, or if it is playing the game that causes certain real-life behaviors.

The main purpose of the current study was to investigate how playing WoW influences adolescent players and to determine if this influence is related to players' normal lives or their in-game behavior. Understanding what affects the effect of computer games or other interactive software on users is crucial for designing meaningful research on virtual worlds.

3. Methods

3.1. Participants

The sampling approach was purposive with the sample being convenient in nature (Babbie, 2007). Participants were university students recruited through notices posted on multiple

noticeboards on a university campus in Germany. To be eligible to participate, the participants had to have played WoW for a minimum of about five hours a week over a one-year period when they were between 11 and 19 years old. Due to time constraints, only six participants from nine volunteers who met the criteria were selected for the study. The three males and three females were chosen on the basis that they were available to meet with the researcher during the time frame allocated for data collection. All participants were over 18 years old at that time, were informed about the study's details, the use of their data, and contacts in case they had questions about ethics in written form before the interview, and consent was confirmed by e-mail. Confidentiality was guaranteed.

3.2. Interviews

The data gathered for this study came from interviews with six participants. Interviews were conducted in slightly secluded areas of public places – e.g., a quiet corner in a cafeteria or a rented room in the library – and lasted between 45 minutes and 90 minutes each. If the participant made a suggestion – which two of the male and one of the female participants did – that location was chosen, while otherwise the researcher's suggestion of a room in the library was accepted.

The interviews were conducted in German and followed an approach described by Kaufmann (1999). Kaufmann (1999) called his approach *L'entretien compréhensif*, French for *The understanding interview*. Their defining feature is that the researcher actively interacts with the participant in an effort to create a situation similar to that of a normal conversation, while staying aware of the interview situation themselves so that they don't force their own opinions onto the participant. Kaufmann's main assumption is that the more personal the atmosphere is, the more personal the answers will be. The aim of this interview style is to understand the participant's statements and see the research object from the participant's point of view. Whatever the researcher says and does should be aimed at keeping the participant talking and revealing more about themselves and their perceptions. This interview technique was chosen for its strength in and focus on understanding participants' experiences.

3.3. Grounded Theory Approach

Drawing on grounded theory, the transcripts were analyzed using a constant comparative method (Glaser & Strauss, 1967), since the main purpose of this approach is to develop a theory directly out of the data (Strauss & Corbin, 1990). This is compatible with the aim of this study, which seeks to understand what gaming meant for the participants and how it influenced them based on their representations of themselves and their pasts.

For this approach all interviews were audio-recorded, transcribed and then analyzed. First, statements and categories were identified in an open-coding phase and then explored for relationships during axial coding. Next, the coded statements, categories, and assumed connections were reassembled in an attempt to create a coherent story for each participant that portrayed the meaning playing WoW had had in their lives. Lastly, all individual stories were compared and analyzed closely in order to find common patterns and trends that could hint at general influences of playing WoW. A diagrammatic sketch illustrating the method used for the analysis was created by the researchers and can be found in Figure 1.

The final conclusions are based on the statements of the participants and the general observed relationships between their stories.

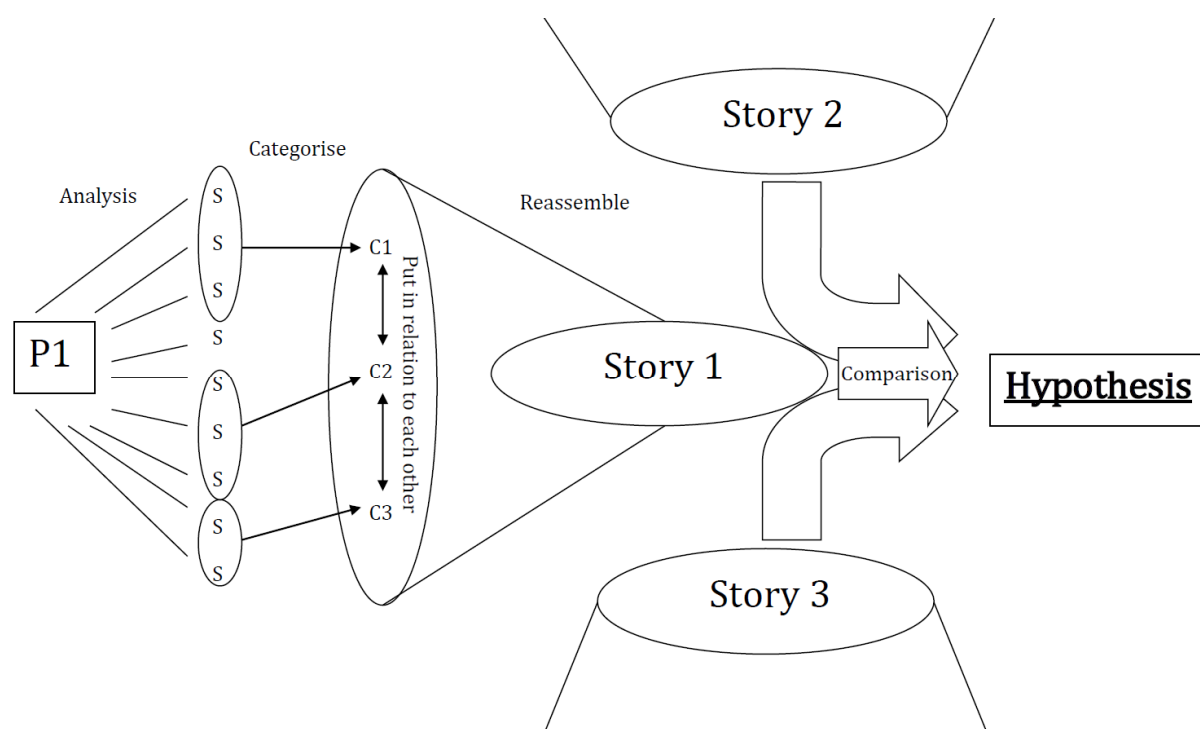


Figure 1: Diagrammatic sketch of the method of analysis. “P1” stands for the interview with the first participant, “S” indicates statements perceived to be relevant, and “C” refers to the categories identified in each interview.

4. Results and Discussion

4.1. Analysis

Each participant was given an identifier - M1, M2, M3 and F1, F2, F3 - which the observations in the following sections will be linked to.

In total 12 different categories were identified during the coding of the interviews, six of which were found to be evident in all of the interviews (*Meaning, Role, and Influence of WoW; Social Interactions; Playstyle; Motivation; Values and Norms; and Interests*), while three were found in four of the interviews (*School; Friends; and Family*). However, since these categories and the reconstructed stories only served to organize and compare the data and are not results by themselves, they are not reported here in detail due to space limitations. The results reported are the tendencies found across the interviews in terms of differences and commonalities.

4.2. Observed Tendencies

4.2.1. Differences - a Brief Comparison of Playstyles

The first observation made in this study is that there is not just one, but several different playstyles. It is especially important to note that some of the playstyles exhibited by the participants were not pre-defined through game-mechanics but rather originated in the players’ creativity. And it is also interesting to point out that the content and aim of the game - running around and killing creatures - was not mentioned as important by any of the participants. The only similarities between the playstyles - besides all of the participants playing extensively - were that for M1, M3, and F1 interactions with in-game content seemed to be more important, while M2, F2, and F3 played the game mainly for social interactions. In the following, a brief overview of the participants’ playstyles as reconstructed from the interviews is given. The descriptions of the playstyles given here are direct summaries of the statements of the participants.

M1 did not participate in the several hour long challenges meant for groups of 10-25 players (raiding) and did not even reach the maximal level. Instead, he kept switching between many different characters playing alone and looked for or created his own challenges. He often participated in Player vs. Player activities (PvP) with the aim of beating other players in one-on-one fights. Originally WoW was probably just another activity for him, one that “everyone did,” but later it appeared to have become a possibility for him to act independently from others and do, what he wanted to do.

M2 did raid, but was, according to his statements, not very ambitious. He generally liked to help other players, and his main motivation was playing with others. It was noteworthy, though, that he kept emphasizing how good he was, and it is assumed that the experience of being good at something that others recognized and appreciated was very important for him.

M3 experimented a lot in the game and tried to (ab)use the game mechanics in a way that would give him advantages unexpected by others. While he did play PvP (only in battlegrounds – designated PvP-areas with special rules), he only did so because he had found a way to easily win the battleground without actually having to fight other players. He preferred and mainly played PvE because there he could improve and continue to achieve new aims. Playing with others was essential for him mainly as a means to an end - beating the PvE-content.

F1 played intensively and had a clear focus on raiding. The group she played in was important to her, but not important enough to stop her from raiding effectively, which is why she changed guilds twice to more effective guilds. She played with the aim of raiding on the highest level she could. Her current guild became her main circle of friends for that time.

F2 seemed to play the game less because of the game itself, but rather because it integrated her into a group in her real-life and because in the game she experienced a sense of community that was new to her. Additionally, playing WoW was a kind of escape from her normal life and provided her with the opportunity to process it in quiet.

F3 originally played the game out of interest and probably for escape. Additionally, it provided her and her best friend with the possibility to live out their feelings and enjoy freedom in their actions and experimenting that they did not dare try in their real lives. They also found a social space in the game that they got along with far better than their normal social environment.

4.2.2. Commonalities

The first tendency that could easily be seen is that many of the participants were outsiders in their real-world social environments. Four of the participants - M2, F1, F2, and F3 - described themselves as outsiders, and the fifth participant - M3 - did not have many friends and did not meet with them frequently. All of them offered similar explanations for having had little contact with their peers: They had different interests than the others and were rather quiet and serious in school.

Additionally, all participants were experiencing some form of personal issues within their families, school, or friends at the time they started playing WoW. M1's parents had broken up, and he did not have any say in what his circle of friends did at school. Due to where he lived he was not able to meet with others after school, and due to his mother working he was alone most of the time. M2 was excluded at school, and even the few people he considered friends did not invite him to their birthdays. Also, his single-parent mother was terminally ill. M3 had not found any close friends because of having different interests and lived in an area that prevented him from meeting with others. In addition, he felt held back or limited and bored at school. He did not talk about his family at all, so his relationship with his family members is unknown. F1 did not have many friends and none of her gender or in her age-range. Her life had been competitive sports, which she had to give up due to time constraints. F2's parents were going through a break-up, she did not have friends, and

was excluded by her classmates at school. In addition to fighting with each other, her parents did not seem to care for or about her. F3’s parents were also going through an unfriendly divorce. She and her only friend did not fit in with their class at school, felt they could not be themselves, and were excluded and verbally or physically insulted.

A potential meaning of this short summary will be discussed in the next section and is used to inform the paper’s conclusions.

An interesting point mentioned by four of the six participants was that they experienced or consciously searched for challenges in WoW. While challenges could be seen as just a normal fun aspect of the game, M3, F1, and F3 described it as a kind of challenge they did not have in their normal lives - if they experienced any motivating challenges at all. Challenges in WoW require a high individual performance and show an immediate result. Raids additionally require planning, good communication, and, in parts, complex and precise teamwork. Something similar is found in normal life usually only in competitive areas like team-sports, which is a comparison mentioned by three of the participants. However, joining an ambitious sports group is often very demanding, requiring a lot of time and prior experience. WoW is different in these regards, since one does not have to be particularly fit or have years of training. Theoretically, all WoW players who want to and are willing to spend some time on it can make the experience of challenge and collective achievement.

Interestingly, though while all participants could have raided at a high level, not all of them did. Only F1 - who was the only participant who played sports competitively – and M1 - the only person who did not do any sports outside of school – did not participate in any raid. This suggests that even though all participants experienced the challenging aspect of the game to some degree, the choice of the kind of the challenges could be related to the players’ personalities and personal histories.

Important for all participants was the meaning of recognition, appreciation, and pride. They emphasized that they received appreciation - partly from total strangers - through the game and were happy with themselves, or even outright proud. Sharing their experiences with others and getting positive feedback was important to them, and this seemed especially significant when they did not get a lot of recognition in their everyday lives.

The last observation is the effect of social interactions in virtual communities like WoW on users’ perceived social support and mental well-being (e.g., Longman et al., 2009). This study’s observations support previous findings that groups and social interactions in WoW can expand a player’s social network significantly and can thereby provide support that reaches well into players’ normal lives (Granic et al., 2014; Longman et al., 2009; Visser et al., 2013). For M2, F1, F2, and F3 the respective online groups were very important. They enriched their lives by giving them a feeling of affiliation and by being people with similar interests that could act as partners for normal everyday conversations.

4.2.3. Conclusions

The observations made during this study led to three main conclusions:

1. Each participant had a unique playstyle.
2. Playstyles seemed linked to the players’ personalities and their life-situations, suggesting that personal characteristics and experiences precede and possibly cause or at least foster the playstyles.

3. It is speculated that playing WoW aided in the development of probably healthy personalities. The participants’ play-styles seemed to focus on providing the aspects that were lacking or even missing in the participants’ normal lives.

Possibly the game’s biggest contributions for the players was that it allowed them to be themselves and find a group that accepted them the way they were. In their everyday lives, most of the participants felt restrained, pressed into set roles or found themselves in situations they could not get out of, be it through school, their families or their friends. In the game, on the other hand, they could move freely, search for or create their own challenges, experience the feeling of belonging to a group or do just what they wanted to do, independent of what others thought of it - and especially independent of their actual environment and situation.

This is why it seems that playing the game had the perceived individual and supporting influence on the participants. The freedom of action in the game meant they could use the game the way that suited them best; it could fulfil the role that was necessary for them at that time. The following summaries for each participant illustrate and support this conclusion.

M1, who in his everyday life had joined a group and did whatever they did, independent of whether he was interested in it or not, could in the game do whatever he liked in his own time, even if it meant just strolling through the game for hours without really doing anything or (unnecessarily - the player knew he could just ignore that enemy) trying to beat the same difficult enemy over and over until he had found an approach that worked.

M2 was well liked and appreciated in the game for being serious and calm, exactly those traits that he was told had led to him being excluded at school.

M3, who was bored in school and forced to follow (as he felt it unnecessary and ineffective) rules and approaches, successfully worked around some of the mechanics in the game and found his own, often times highly creative solutions for challenging situations.

F1, who due to a lack of time had given up competitive sports (about a year before she had started playing WoW) and had been unambitious since then, developed enthusiasm and ambition again while raiding in WoW at a semi-professional level.

F2 found the game provided her with a stable setting in which she experienced a sense of quiet and felt like she had time to herself as well as her (virtual) life under control. The game helped her gradually develop confidence through people telling her that it was okay for her to be the way she was and that making mistakes does not automatically lead to being picked on or worse.

F3 could in the game be herself and be who she was together with her friend, while in everyday life they were met with prejudice. They finally encountered a stable group in the game who accepted them and treated them in a friendly way, independent of how weird they seemed to others in their regular lives.

Lastly, an interesting observation was that for all of the participants playing WoW was only a phase in their lives. They all had begun playing WoW at a certain point in their lives, played it for individual reasons, all with their own playstyles, and then eventually stopped. At least for F1, F2, and F3 their life-situations had, at this point, changed considerably to the better, while M1's and M2's situations were now generally different.

Oerter and Montada (2008) mention the theory that an individual’s media usage corresponds to the development tasks of their current stage in life and Colwell (2007) argues that adolescents may use computer games to meet their individual needs. These propositions form a clear theoretical and conceptual framework which is consistent with this study’s results, and such hypotheses may be helpful for future research.

5. Summary and Implications for Future Research

Video games like WoW have been implicated in the development of addiction and social isolation for young people as well as causing undesirable behaviors in players (Granic et al., 2013; Griffiths, 2010; Visser et al., 2013; Witt et al., 2011). This was not found to be the case for the participants in the current study. Rather, the game appeared to support the development of the players' identities by allowing them to live out aspects of their identities that were restricted in their normal lives. Though it cannot be said for certain how the participants would have developed as non-players, based on their statements and stories it cannot be ruled out that some of them might have tried drugs to retreat from/cope with their everyday lives, or joined extreme groups to experience at least some kind of belonging; or they might simply have stayed and felt alone, with unforeseeable, but most probably negative, consequences. These assumptions are based on general theories about the development of adolescents as found in Berk (2005), Erikson (1971), Oerter and Montada (2008) and others. Whatever their option would have been, they may not have found the social contact and experienced the sense of community that are so important in the life of most teenagers and adolescents (Berk, 2005). And, interestingly, only during this crucial time for development did they use the game, which supports its role as tool for personal development.

The contribution of this study to the current understanding of the effect of video games like WoW is that playing the game can support the development of adolescents in various, not predetermined ways. The game's influence is very individual and seems to be directly related to the diverse playstyles exhibited by the players. The social component – being in contact with a lot of different people – which was described differently by most participants, indeed seems to be important for this influence, but appears to not be the only factor. The playstyle of the players is the other aspect, one in which all of the participants differed and expressed their individuality, however similar the overall goals may have been.

This possibly provides an answer for the important question about the causality of the correlations between characteristics of the players and their playstyles in the game found by other studies (e.g., Bean & Groth-Marnat, 2014; Graham & Gosling, 2013; Visser et al., 2013). According to this study's results it seems like it is not playing WoW that causes the observed factors, but as if it is those factors that support the people playing WoW and as if the individual combinations of the factors are the origin of their individual playstyles.

However, all of the observations and results described here are to be viewed with caution because a sample of six participants with similar occupations, educational status and age cannot be viewed as representative. But this study still yielded interesting and possibly important results for adolescents, teachers, and parents, and the observations made here should be verified in an appropriate quantitative or mixed methods study. The study also adds support to the theoretical propositions that an individual's media usage corresponds to the development tasks of their current stage in life (Oerter & Montada, 2008), and that adolescents may use computer games to meet their individual needs (Colwell, 2007).

Future foci for research should be on verifying causal relationships between game-playing styles and users' characteristics, and on describing and categorizing the varying playstyles exhibited by players in different games to better understand how – and why – these games are really used. In the long run, this would be an essential contribution to developing or using games as interventions to enhance mental health as proposed by Turner et al. (2016).

While taking the findings of this study into consideration would make the research and studying of the influence of computer games more complex, this will be essential in order to describe and better understand the role virtual worlds play in modern lives.

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