

Exploring Playful Experiences in Social Network Games

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ABSTRACT

Social network games are popular pastime for millions of players on Facebook. Despite their popularity, qualitative research on experiences in these games has been scarce. In our study, 110 informants played 23 games on Facebook and reported their experiences using the Playful Experiences (PLEX) framework. We analyzed 110 reports containing 330 PLEX descriptions and present findings from three perspectives. First, we provide an overall analysis on playful experiences in social network games. Then we focus on genre-specific experiences in casual puzzle, casual simulation, and mid-core strategy games. Lastly, we provide examples of interesting outlier experiences. Based on our study, *Competition*, *Completion* and *Challenge* are the most common playful experiences in these games. The genre-specific analysis revealed both similarities and differences between the genres, while the outlier experiences provide new perspectives on social network games. Through the PLEX framework, this research helps to understand the playful experiences in social network games.

Keywords

Facebook; Experience; Playfulness; PLEX; Social Network; Social Games; Video Games

INTRODUCTION

Social network games have become popular in the recent years. These “social games” played on Facebook and other social network services feature millions of players, who enjoy a wide variety of different games online with their friends (Fields & Cotton 2012). Social games can be defined as “*Online games that adapt your friendship ties for play purposes, while accommodating your daily routines*” (Järvinen 2011). For the purpose of this paper, we use the game industry coined term “social games” as a reference to social network games played on Facebook and on similar social networking services, thus excluding other social games such as massively multiplayer online (MMO) games or party games, for example.

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The qualitative research on social games experiences is scarce, thus the topic is timely, and also interesting for both the academia and the game industry. There is a need for a deeper understanding of playful experiences in new gaming contexts and social games have not been rigorously explored in research literature.

There are multiple ways to study experiences in games (Bernhaupt 2010) and one approach is to use analytical methods to analyze and categorize experiences in a structured manner. For this purpose, we use the Playful Experience (PLEX) (Korhonen et al. 2009) framework to understand what experiences are elicited by social games and what experiences emerge from certain social game genres.

In this paper, we present the results of a study in which 110 informants analyzed their playful experiences with 23 social games using the PLEX framework. First, we provide an overall analysis based on 330 reported PLEX descriptions, and then we focus on the playful experiences in three specific social games genres; casual puzzle, casual simulation and mid-core strategy games. Lastly, we look at interesting outlier experiences based on the whole data. The aim of this empirical qualitative research is to provide a better understanding of playful experiences in social games. We believe these findings to be useful for both scholars and game developers.

RELATED WORK

Social games is a relatively new game industry domain which appeared in 2007 after Facebook allowed third party developers to produce applications for the social network service (Paavilainen et al. 2013). The two most distinctive features of social games is the utilization of the social network service for play purposes and the free-to-play revenue model. These features make social games easily accessible as games can be found and played in the social network service with ease, and no monetary commitment is required to play them (Fields & Cotton 2012, Paavilainen et al. 2014).

Game experiences can be studied using both quantitative and qualitative methods. Nacke and Lindley (2009) have used specific hardware to measure gamers' emotional states when playing games. These tools provide an objective measure of player's responses to gameplay events. Tychsen (2008) has proposed a game metrics analyzing method, which uses numerical data collected from the interaction of the player with the game world. With this method, it is possible to get very accurate data about the player's behavior in the game world and reasons for specific experiences. The difficulty with these methods is that they require specialized equipment, which may not be readily available to everyone.

Qualitative methods rely on comments collected from the players themselves. Interviews have been recognized to be a central qualitative method for gaining understanding of gameplay (Mäyrä, 2008). Poels et al. (2007) have used focus group interviews to categorize various in-game and post-game experiences. Based on the focus group study, they have developed a Game Experience Questionnaire (GEQ) for self-reporting game experiences. Paavilainen et al. (2013) have studied players' perspective on social games by interviewing them. Based on the interviews, social games provide a wide range of different play experiences by offering high accessibility and easy-to-approach competition and collaboration with a social twist, and short, flexible play sessions. This study gives an indication of experiences that are related to social games, but we need to have something more specific to describe and measure them coherently. Korhonen et al. (2009) have defined the Playful Experiences (PLEX) framework to describe experiences that users experience. The latest version of the framework consists of 22 categories,

which cover a broad spectrum of playful experiences (Arrasvuori et al. 2011). Some of them are clearly related to playing games (e.g. *Challenge* and *Competition*), but there are also other types of experiences, which are considered playful in a certain context (e.g. *Cruelty* and *Submission*). The framework can be used for understanding playfulness, for providing inspiration to design interactive products, and for evaluating experiences that a product elicits.

Although the PLEX framework has been developed for design-related activities, i.e. for concept development (Arrasvuori et al. 2011) and to be used as a design tool (Lucero & Arrasvuori, 2013), there is also an experiment in which it has been used for evaluating experiences. Lucero et al. (2013) explored if the PLEX categories could be used as principles for assessing different aspects of playfulness using the expert evaluation method. They evaluated two mobile game prototypes, which used Near-Field Communication (NFC) technology for physical interaction between the devices. Lucero et al. (2013) concluded that even though there are some weaknesses in using the framework for evaluation purposes, it provided anchor points for the experts to reflect and discuss different aspects of playfulness as they conducted the evaluation. The PLEX framework was selected for this study to be used as an evaluation tool to describe self-reported experiences the informants experienced while playing social games.

METHOD

To study playful experiences in social games, we conducted six experiments running from the fall of 2011 to the spring of 2014 where the informants played Facebook social games and described their experiences by utilizing the PLEX framework. Although PLEX does not cover game experiences as a whole, we argue that PLEX provides a wide enough structure to analyze and discuss experiences in games. The PLEX framework was originally developed by analyzing videogames and it can be seen as a subset of game experiences. For the informants, PLEX offers an analysis vocabulary which can be easily taught and used by novice informants who have no games research background.

Experiments were done during the fall and spring periods between 2011 and 2014 and the informants were university students. For the six experiments, a total of 23 games were analyzed by 110 informants (69 male, 41 female, average age of 27 years). A clear majority (108 out of 110) of the informants had earlier experience of video games and 22 considered themselves as active social games players. In addition, 34 informants reported having some experiences of Facebook social games with the rest (54) having no experience of social games. As social games aim to attract the largest possible audience (Fields & Cotton 2012), we saw the diversity in gameplay experience among the informants beneficial rather than detrimental. Informants with varying exposure to social games provide a balanced sample, suitable for a qualitative study.

Each experiment had a pre-defined list of social games (from two to five games depending on the number of available informants during the experiment period) which were analyzed by the informants. The list of social games was formed by the authors to represent a wide variety of different kinds of social games. There were both casual and mid-core games with various genres such as puzzle, simulation, strategy, action, shooter, hidden object, and quiz games.

The terms “casual” and “mid-core” are used here as approximates. Casual games generally refer to games, which are accessible, acceptable, simple, and flexible (Juul 2009; Kultima 2010). Casual games in general are easy to access and play, and do not necessarily require much mental effort. The term “mid-core” is coined by the social

games industry and it depicts the target group audience, i.e. lapsed gamers who are familiar with video games but do not have the time to play them as they used to (Newzoo 2012). Mid-core as a term can also be approached from another angle, i.e. describing games which offer more depth and diverse game mechanics than casual games.

The study included popular social games with millions of monthly players, and less popular, or newer games, with smaller audiences. The selection criteria for the games at the time of the experiments were based on their popularity (the amount of players), novelty value or similarity in gameplay. At the beginning of the study, games were mainly chosen due to their popularity or novelty - later on games were selected to provide similarity to allow genre-specific comparisons. See table 1 on next page for the complete list of selected games with additional details.

For this study, each informant played one game, thus each game was played by four to six informants. In the experiments, games were selected by first-come-first-served principle and each informant chose only one game to play due to time constraints. To get a good understanding of the selected game, the informants were asked to play the game for at least two hours in a two-week period. Due to the on-going nature of social games (see Paavilainen et al. 2013), a longer period than a single play session was required. The informants did other analyses tasks on the games as well (such as heuristic evaluation of playability) but those analyses are not the focus of this paper and will be reported elsewhere.

In order for the informants to understand the different categories of playful experiences, they were introduced to the PLEX model before playing the game. After playing the selected game, the informants reported three PLEX categories with detailed descriptions. We felt that limiting the reporting to three PLEX categories helped to underline the most common playful experiences and provided better focus for the study. The PLEX categories and descriptions were written in self-report forms, which were then analyzed by the authors.

The PLEX data analysis was done by going through all 330 PLEX descriptions. First we looked at the frequencies of all reported PLEX categories and then we focused on the three most commonly reported PLEX categories and their descriptions written by the informants. This produced an overall view on playful experiences in social games.

As social games come in many shapes and forms, we found it important to do genre-specific comparison to understand playful experiences more accurately. For example, *Challenge* might be a common playful experience in a casual puzzle game but non-existent in a casual simulation game. For the genre-specific findings, we selected three social game genres with four games in each (a total of 12 games and 59 informants). The selected genres were casual puzzle, casual simulation and mid-core strategy. These genres were considered popular among social games and each genre was represented by four games similar in gameplay in our study. The frequencies of the reported PLEX-categories for each genre were analyzed along with the written descriptions. Table 2 below presents the selected games, types, genres and the number of informants.

Analysis Period	Game	Publisher	Launch Year	Type	Genre
2011 F	Army Attack	Digital Chocolate	2011	Mid-core	Strategy
2011 F	CastleVille	Zynga	2011	Casual	Simulation
2011 F	Gunshine	Supercell	2011	Mid-core	Action
2011 F	Sims Social	Electronic Arts	2011	Casual	Simulation
2012 S	Indiana Jones Adventure World	Zynga	2011	Casual	Action
2012 S	Bubble Witch Saga	King	2011	Casual	Puzzle
2012 S	Gangs of Boomtown	Digital Chocolate	2012	Mid-core	Strategy
2012 S	Hidden Chronicles	Zynga	2012	Casual	Hidden object
2012 S	Crazy Penguin War	Digital Chocolate	2012	Mid-core	Action
2012 F	SongPop	FreshPlanet	2012	Casual	Quiz
2012 F	War Commander	KIXEYE	2011	Mid-core	Strategy
2012 F	Yoga Retreat	Gajatri Studios	2012	Casual	Simulation
2013 S	Candy Crush Saga	King	2012	Casual	Puzzle
2013 S	Game of Thrones: Ascent	Disruptor Beam	2013	Mid-core	Strategy
2013 F	Criminal Case	Pretty Simple	2012	Casual	Hidden Object
2013 F	Dragon City	Social Point	2013	Casual	Simulation
2013 F	FarmVille 2	Zynga	2012	Casual	Simulation
2013 F	Pet Rescue Saga	King	2012	Casual	Puzzle
2014 S	VEGA Conflict	KIXEYE	2013	Mid-core	Strategy
2014 S	Dragon Academy	Team Chaos	2013	Casual	Puzzle
2014 S	Pirates of the Caribbean: Isles of War	Playdom	2014	Mid-core	Strategy
2014 S	Shadowgun: Deadzone	Madfinger Games	2012	Mid-core	Shooter
2014 S	Uberstrike	Cmune	2010	Mid-core	Shooter

Table 1: The list of selected social games in the study. The analysis period column depicts the year and the period (spring or fall) of the experiment

#	Game	Type & Genre	Informants
1	Bubble Witch Saga	Casual Puzzle	6
2	Candy Crush Saga	Casual Puzzle	4
3	Pet Rescue Saga	Casual Puzzle	5
4	Dragon Academy	Casual Puzzle	5
5	CastleVille	Casual Simulation	4
6	FarmVille 2	Casual Simulation	5
7	Yoga Retreat	Casual Simulation	6
8	Dragon City	Casual Simulation	5
9	Gangs of Boomtown	Mid-core Strategy	6
10	War Commander	Mid-core Strategy	4
11	VEGA Conflict	Mid-core Strategy	4
12	Pirates of the Caribbean: Isles of War	Mid-core Strategy	5

Table 2: The list of social games selected for the genre-specific analysis of playful experiences.

Lastly, we looked at all of the data and recognized interesting outlier experiences in all the reported PLEX-categories. These outlier experiences from either frequent or less frequent PLEX-categories were unusual or otherwise interesting descriptions providing a fresh perspective on the topic.

RESULTS

In this section we present the findings of the study. First, we give an overview of playful experiences in social games, and then we focus on genre-specific findings, and lastly we give examples of interesting outlier experiences. To support our findings, we provide informant quotations from the written descriptions.

Playful Experiences in Social Games

The 110 informants reported a total of 337 playful experiences. Five informants reported additional PLEX categories in addition to the required three. These additional PLEX categories were omitted from the analysis. Thus, the total number of analyzed PLEX categories was 330. The frequencies of analyzed PLEX categories are presented in Table 3 below, where they are sorted from the most common to the least common.

#	Playful Experience	Instances	#	Playful Experience	Instances
1	Competition	48	12	Captivation	14
2	Completion	43	13	Thrill	12
3	Challenge	38	14	Humor	8
4	Exploration	24	15	Cruelty	6
5	Fellowship	19	16	Submission	6
6	Control	19	17	Simulation	5
7	Discovery	18	18	Expression	5
8	Relaxation	17	19	Sensation	1
9	Suffering	16	20	Sympathy	1
10	Fantasy	15	21	Subversion	1
11	Nurture	14	22	Eroticism	0

Table 3: Frequency of the reported PLEX-categories in all analyzed social games.

The top three playful experiences *Competition*, *Completion* and *Challenge* were reported 129 times in total, which is 39 percent of all instances. The next cluster of playful experiences featured *Exploration*, *Fellowship*, *Control*, *Discovery*, and *Relaxation* in 97 instances, representing 29 percent of all instances. The third cluster with 71 instances featured *Suffering*, *Fantasy*, *Nurture*, *Captivation* and *Thrill*, making up for 22 percent, and the last remaining 33 instances were scattered into the last nine PLEX categories - representing the last share of 10 percent (Figure 1).

Playful Experiences in Social Games

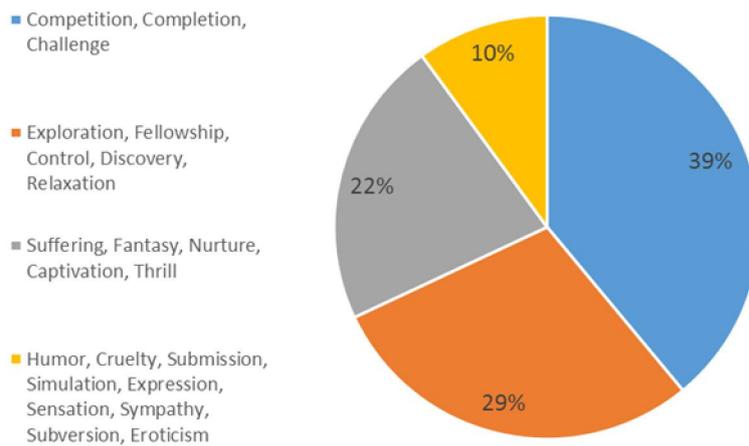


Figure 1: The distribution of playful experiences in the social games analyzed in the study. 68 percent of instances are covered by eight PLEX categories.

Competition was the most common playful experience reported. *Competition* was seen on three different levels: competition against friends, oneself and the game. One informant provided a summary:

“[Competition] involves contest with oneself, an opponent or a system. The game is a competition that contains smaller victories. After passing a stage the game states “you win”. Mainly the game is contest with oneself and the system. The main goal, competition-wise, is to pass all the stages. The player can compete for points and reached stages with others.” (Female, 28, Dragon Academy)

Most commonly, *Competition* was related to beating friends in the game or describing game mechanics such as leaderboards and high score lists which elicited competitive behavior. Competing against oneself was also described in the form of improving one’s previous high score. Lastly, there were mentions about competing against the system or the game.

Completion was the second most common reported PLEX category and related to progressing in the game via completing tasks and missions. Also, collecting items and creating buildings were seen as examples of *Completion*. *Completion* was related to various reward mechanics as progressing in the game or finishing processes usually resulted in an increased score, new items or new action possibilities. *Completion* was seen as a retention mechanic as the informants wanted to finish on-going tasks and processes before ending the play session as shown in these two examples:

“The game is all about completing tasks, reaching goals and progressing. It is hard to stop playing because of the feeling that some kind of completion must be reached before pausing or finishing the game.” (Female, 26, Army Attack)

“I was obsessed with building the juice bar which took a really long time to finish. In order for the juice bar to be finished, I needed three tiles from friends. After I sent out invitations and requests for tiles and received only one tile back, I resorted to messaging and calling my friends in order to get the tiles. I even sent out directions on Facebook on how to send the tile with a picture that had the button circled in red. That was my final goal before stopping the game.” (Female, 33, Yoga Retreat)

Challenge was the third most common playful experience reported in the study. *Challenge* was discussed in relation to player skills and the difficulty of tasks in the game:

“The game concept is to test the player’s ability to solve its puzzles.” (Female, 24, Pet Rescue Saga)

Also, *Challenge* was mentioned as a meta-level element where the player was playing against the game developers and the free-to-play monetization system:

“Some levels just feel completely unfair, especially since some basic features (such as scrolling the game area) are buyable extensions to the game. But I wanted to show to myself that I can still beat the game (and thus the game makers) without using any money.” (Male, 27, Bubble Witch Saga)

This challenge on the meta-level was reported either as a challenge in playing without the use of real money, or a challenge in preserving energy to be able to continue playing for as long as possible. In social games, *energy* is a common offline-progress mechanic, which is used to control the length of a play session and drive the player towards real money purchase decisions (Paavilainen et al, 2013).

Genre-specific Playful Experiences

Between the three selected genres, there were clear differences in the reported PLEX-categories. Table 4 below presents these findings.

Playful Experience	Casual Puzzle	Casual Simulation	Mid-core Strategy	Total
Captivation	2	4	2	8
Challenge	11	2	3	16
Competition	13	3	7	23
Completion	4	11	9	24
Control	0	3	10	13
Discovery	3	6	3	12
Exploration	1	5	4	10
Fantasy	0	3	4	7
Fellowship	2	3	3	8
Humor	0	0	3	3
Nurture	3	7	1	11
Relaxation	7	4	2	13
Simulation	0	3	0	3
Submission	2	0	1	3
Suffering	8	3	0	11
Thrill	0	1	2	3

Table 4: Frequency of the reported PLEX-categories from the genre-specific analysis. Highlighted items were the most commonly reported PLEX-categories within a genre. Categories, which were mentioned less than three times in total, have been omitted.

Casual Puzzle

For casual puzzle games, the most commonly reported PLEX-categories were *Competition*, *Challenge*, *Suffering* and *Relaxation*. *Competition* and *Challenge* are common in casual puzzle games as puzzles are meant to be challenging by default and the

social setting makes competing against friends possible via a high score list. Although casual puzzle games are considered competitive and challenging, there is also room for relaxing experiences and mental unwinding:

“It was easy to start playing the game; I didn't have to think about where I left off or what my task in the game was. Playing the game was not very demanding intellectually and I didn't have to think too much when playing the game. It was relaxing, almost mechanical.” (Female, 29, Bubble Witch Saga)

In contrast to relaxing experiences, there was also a fair deal of suffering present in casual puzzle games. Especially if progression was considered to be too depended on luck:

“Suffering because there is just so much luck involved in the game, and you need it to pass the most difficult levels.” (Male, 29, Candy Crush Saga)

However, the relief after suffering from repetitive failures might be substantial as well. Thus, suffering can be motivating, leading to a positive experience:

“This suffering also somehow motivated me to keep on playing and trying. There's no way a casual game can beat me. The relief was quite substantial when I passed a level in which I was stuck for tens of lives.” (Male, 28, Candy Crush Saga)

Casual Simulation

Casual simulation games elicit mostly *Completion* while *Nurture*, *Discovery* and *Exploration* stood out from the rest. Completing tasks and quests was common in casual simulation games, bringing closure to gameplay:

“Collecting stuff, which allows buildings and new options to emerge provides a sense of completion; a sense that you have finished a task and reached a closure, leading to a new task, etc. Completing quests also serves this function.” (Male, 28, CastleVille)

Nurture was experienced through the player's responsibility to the virtual flora and fauna in the game world:

“The game is all about taking care of your kingdom and, in many cases, taking care of the flora and fauna there. You see animals grow from babies to adults in your loving care.” (Male, 33, CastleVille)

“I had an experience of nurture when I took care of the animals of my farm. I was worried that they would die if I didn't feed them frequently.” (Female, 23, FarmVille 2)

Discovery and *Exploration* were also present in casual simulation games, and usually the latter precedes the former. In these casual simulation games, the game world is often expanding as the game progresses, thus providing new playable content and surprises, creating curiosity:

“[Exploration] You are free to roam about in your neighbors' farms, explore and harvest their crops to earn bonuses and some experience. Explore new areas in your regions to unlock new features.” (Male, 23, FarmVille 2)

“[Discovery] There were some nice surprises in the game, such as seeing the crossbred dragons after hatching, witnessing dragons' leveled-up forms, or discovering gifts from a friend.” (Male, 22, Dragon City)

Mid-core Strategy

Control, Completion and *Competition* were the most commonly reported PLEX-categories for mid-core strategy games. *Control* was reported most often and it differentiated mid-core strategy games clearly from the casual puzzle and casual simulation genres.

Control was related to domination of the game world and also having an ownership of meaningful in-game actions like deciding what kind of a base and troops are to be built, and how strategies and tactics are applied in real-time. The ability to make bad decisions and fail in the game was also related to *Control*:

“In the game, the player controls a military base and its units. The player can control his units to control the area around him, attacking computer-controlled bases or player-owned ones. The player also has control over his units in real-time battles and can affect the outcome by skilled actions.” (Male, 21, War Commander)

“An ability to build my own base and to make stupid decisions (like raiding enemy bases with weak forces). I would be frustrated if the game wouldn't allow me to fail.” (Male, 23, VEGA Conflict)

In mid-core strategy games, *Completion* was often related to finishing tasks and quests like in casual simulation games. In addition, the informants brought up game mechanics such as the process of upgrading their bases and units, and also behavior to max out everything to create a sense of closure:

“The game revolves around the player improving his home base and upgrading it further, along with upgrading and unlocking new units.” (Male, 21, War Commander)

“The game creates a strong sense of wanting to max out everything before quitting the game once and for all.” (Male, 32, War Commander)

Competition was the third category and like in casual puzzle games, it was related to competing against friends via a high score list. In addition, all mid-core strategy games in this study allowed player versus player gameplay, e.g. attacking another player's troops and base:

“The player competes against other players as they can attack other players' fleets and bases and earn medals and resources by doing so. There is also a leaderboard showing the current ranking in the game.” (Male, 27, VEGA Conflict)

Outlier Experiences

There were also interesting outlier experiences which give fresh perspectives to playful experiences in social games. For example, *Cruelty* can be seen as a playful experience in a game context where acts of violence are rewarded – or just simply enjoyed:

“The sense of pleasure while beating up drunken locals and getting rewards.” (Male, 26, Gangs of Boomtown)

“Nothing is better than stomping bad players. In Shadowgun there are usually two or three guys totally dominating, and the rest are there just to be killed over and over again. It gives infinite pleasure to shoot someone with a headshot without him or her even being able to react. There are also good ways to humiliate other players. One is to pummel them to the ground, wait for them to get up, and do it again until they are done for.” (Male, 24, Shadowgun: Deadzone)

Humor can also be used to diminish the moral conflict that might be otherwise raised by violent game content:

“For some reason, I find this game humorous. Item names and all the comments in the game story are nice. For example in the headshotting hint there was this sentence: ‘Headshots baby!’. In any other context that would not be funny, but somehow in this game and in this kind of hit-fire-and-rush game I found that humorous.” (Male, 22, Shadowgun: Deadzone)

Social games can also have educational content. In this example, an informant reported how a yoga game provided new, useful information through *Discovery*:

“Yoga is not a familiar theme for me, so the game taught me new things, for example names of yoga poses, how to practice them (off-game tutorials), healthy ingredients, etc.” (Male, 23, Yoga Retreat)

In casual simulation games, the player often has tasks and goals to complete, and finishing these tasks makes the player to return to the game with the feeling of *Captivation*.

“Despite its flaws, the gameplay is scarily addictive for a completionist like me. This is mainly due to the visible indicators of one’s progress, lists of available collectibles as well as constantly given (although not very meaningful) rewards. That said, the game never provides the actual experience of completion.” (Male, 30, Dragon City)

The feeling of *Submission* can arise when a player starts to play a new game and her friends have been playing it for a while. The ever-present leaderboard is a constant reminder of where the player stands when compared to her friends:

“The submissive part of the game is that the player is automatically put into a relation to his/her friends, resulting in a leaderboard. Since an enormous part of a leaderboard’s principle is to be behind somebody in the ranking (if you are not the leader the whole time) and since a newcomer to that game is always behind his/her friends playing the game for a longer time already, submission is a key element of the game.” (Male, 24, Bubble Witch Saga)

DISCUSSION

Based on our findings, social games provide a wide spectrum of playful experiences, some of them more common than others. Overall, the majority of experiences were related to the first two clusters featuring *Completion*, *Competition*, *Challenge*, and *Exploring*, *Fellowship*, *Control*, *Discovery* and *Relaxation*.

Analyzing *Completion* provided insights into player motivation. Informants described behavior similar to *quota anchoring* and *endowed progress effect* (Hamari 2011), which

are cognitive biases and also effective retention mechanics as shown in the examples. Retention is regarded as an important factor in the success of free-to-play games (Fields & Cotton 2012), so understanding *Completion* is critical from the design perspective. Vammen and Perkins (2007) have suggested that “completionist” is a personality trait that can cause addiction to online gaming. A completionist wants to accomplish everything that you possibly can in a game. Like MMO games, social games are also often endless, and have new content for the players from time to time. This way the completing never ends, keeping the player in the retention loop.

Looking from the sociability perspective, experiences of *Fellowship* and *Nurture*, which refer to collaborative game play, were not nearly as common as *Competition* which emerges from competitive versus play. In earlier research Consalvo (2011) has stated that “many popular social games feature little or no direct competition between players”, so this was an interesting finding based on the informants’ experiences. Based on this study, competitive experiences seem to be more common than collaborative experiences in social games.

The popularity of *Challenge* can be seen to be somewhat surprising, as in an earlier study it was noted that social games lack challenging aspects (Paavilainen et al. 2013). This is most likely a genre-specific issue as closer examination revealed that *Challenge* is heavily related to casual puzzle games while casual simulation and mid-core strategy games do not feature challenge as much – or at least they were not experienced as such. There were cases where the informants reported *Challenge* being present on the meta-level: as a self-set goal to play for as long as possible without paying real money. This can be seen as a form of *min-maxing*, i.e. playing the system (Stenros 2010), and against the free-to-play revenue model which is designed to monetize players during game play (Fields & Cotton 2012).

The genre-specific analysis revealed that the social game genres are experienced differently, but they also feature some similarities to one another in a similar sense to *family resemblance* (Wittgenstein, 1953) where there are overlapping similarities but no one feature is common to all. Casual puzzle games were distinguished by experiences of *Challenge*, *Suffering* and *Relaxation* (even though the last two are mutually exclusive!) while mid-core strategy games featured experiences of *Control*, manifested by a sense of ownership in the player’s actions and an ability to make catastrophic decisions, which were not possible in casual simulation games (Paavilainen et al. 2013).

There were interesting outlier experiences present as well. Experiencing and enjoying violence (*Cruelty*) has not been discussed in the context of social games before. Klimmt et al. (2006) have discussed ‘moral management’ within video games. They have argued that in order to sustain their enjoyment in video game violence, players find effective strategies to avoid or cope with the moral conflict related to their violent behaviors in the game worlds. Some participants in their study argued that violent video games are only about performance. In this way, violent action is solely a by-product of intense competition.

The educational potential of social games was brought up earlier by Paavilainen et al. (2013). In this study, there was a textbook example of *shadow learning* (Whitton, 2010) where an informant learned aspects of yoga lifestyle from a social game while playing.

There was an example of *Submission* caused by the pervasive ranking features of social games. In an earlier study, it was noted that it might result in a *negative feedback loop* (Salen & Zimmerman 2004) as competing against friends who are way ahead might be impossible – thus producing negative experiences.

Based on this study, social games provide a wide array of playful experiences, especially as the domain has been expanding with mid-core games featuring more versatile game mechanics (c.f. Consalvo 2011, Paavilainen et al. 2013). The utility of the PLEX framework as an analysis tool needs to be validated in a controlled study, but we argue that the approach produced meaningful results in this study by identifying differences in game genres and pointing out interesting outlier experiences.

Although the analyzed social games provide wide variety of playful experiences, there is still a lot of room for expanding the playful experience space. As eight PLEX categories covered 68 percent of all reported experiences, there are opportunities for experimental, transgressive or daring social games which would challenge the current conventions.

The limitations of our study are three-fold. First, we narrowed the informants' reporting to three PLEX categories. It can be argued that games can elicit more than three playful experiences, but we wanted to focus on the most common experiences; hence the restriction. Second, although we had 110 informants playing 23 social games, we cannot generalize our results beyond this study due to the wide variety of social games and possible playful experiences produced by them. Third, our informant demographics do not represent actual social games demographics to full extent. Our informants were university students, while the actual demographic for social games is more diverse, featuring more women and older gamers in general (Fields & Cotton 2012).

CONCLUSION

In this paper, we have presented a study where 110 informants reported their playful experiences in 23 social games by using the PLEX framework as an analysis tool. We recognized the most common playful experiences in the selected social games (*Competition, Completion, Challenge*) and revealed experiential differences in three social game genres; casual puzzle, casual simulation and mid-core strategy. We also provided examples of experiences, which are not commonly discussed within the social games literature, such as experiences on violence and learning.

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