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| University of Waterloo |
| CloudBreakers Alpha Playtest User Feedback Analysis |
| WKRPT300 Work Term Report |
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| Date of Submission: 2016-05-09 |
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Dr. Eric Croiset,

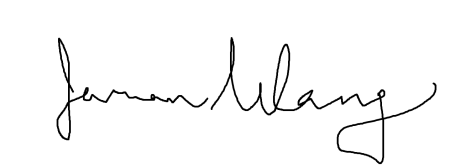
After the completion of the work term at Uken Games as an user experience (UX) designer, I have written this report to describe the process of user testing and analysis. The name of the report is *CloudBreakers Alpha Playtest User Feedback Analysis*.

The course code for this report is WKRPT 300, and will be the second work term report submitted. This report will be submitted during the 3A Chemical Engineering academic semester. The content of this report is relevant to the tasks completed during my fourth work term.

The content of this report corresponds to the tasks completed during my employment at Uken Games. The employer for the co-op semester was Daniela Mahac. I worked on a project team called CloudBreakers. The company is located in the entertainment district in Toronto, and my supervisor for the work term was Brian Lin, a senior UX designer.

As part of the duties of the product design team at CloudBreakers, I was required to gather and analyze user feedback from the Alpha playtest. User feedback studies and analysis was required to identify potential pain points the game is experiencing, gauge player interest, as well as to provide insight for what and when the next iteration should be.

The bulk of the contents discussed in this report, as well as all statistics, graphs, and findings are not considered confidential. However, the individual statistics gathered from users contains sensitive billing and personal information. As a result, the raw data will not be included as part of the report. This report was written entirely by me with no external help, and has not received an academic credit at this or any other institution.

Sincerely Yours,

Zhao Ye Wang

# Executive Summary

This report aims to provide insight into how the Alpha playtest for CloudBreakers was designed, discuss the observations and findings, draw logical conclusions based on these findings, as well as to provide suggestions and recommendations based on the feedback gathered. In particular, suggestions given in this report are focused around ideas that would improve overall player experience for the next iterative playtest (Beta playtest is set to take place in May).

As part of the duties of the UX Designer at Uken Games, user research and analysis falls under one of the responsibilities of an UX designer. The feedback gathered from users in this exercise proved to be incredibly valuable for the design & development team in identifying pain points in the existing prototype.

The user feedback analysis was jointly performed by Senior UX Designer Brian Lin and the author. However Brian did not provide any assistance in the writing of this work report.

The overall conclusion reached by the design team was that the core Player versus Environment (PVE) system of the game required a major overhaul moving forward in the pipeline of the game development. There is a low level of player interest, and most players noted that they would not be interested in playing or supporting CloudBreakers in its current state.

As it currently stands the Alpha build of CloudBreakers is in need of drastic work moving forward. The recommendation for the current build is to allocate more time and resources to polish the core PvE system in order to ensure player satisfaction.

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# 1.0 Introduction

The video games industry has been steadily growing for at least the past 30 years. From the first initial conception of Pong on an 8-bit terminal, to the many graphically intensive and realistic games played on the console, there is a video game out there for anyone and everyone. As the demand for smartphones expanded, so has the market for mobile games.

Uken Games is a mobile games studio based in Toronto, founded in 2009. Uken’s casual casino and puzzle releases have been their most successful titles. However in the past four years, the studio has tried to venture into the midcore RPG games genre, and unfortunately the past three RPG games the studio attempted to put out have been met with failure.

CloudBreakers is one of Uken Games’ current working titles that have been planned for release for the summer of 2016. The game is a blend between trading card and RPG games. Despite being in the second last quarter before the game’s release, after more than 1 year in the development pipeline, so far the game has only been playtested internally within the company. The game in its current state has not been exposed to external users at all, and the CloudBreakers team has been working and designing blindly without major user feedback and data insights as guideline.

This playtest phase serves multiple purposes. It is an opportunity for the developers and the products team to gauge player interest, identify design flaws, eliminate software glitches and bugs, as well as to improve upon problematic areas of the game [3]. The product and design team is hopeful that the user feedback would be useful for both short term iteration as well as long term planning.

For this reason, an external playtest was planned for the March of 2016. Around a hundred invitations were sent out to a small group of interested players, consisting of members from the friends and family of Uken Games’ employees, University of Toronto Computer Science students, paid users from a website platform called UserTesting.com, as well as game developers from other studios in Toronto. Over fifty users accepted the invitation and contributed to the playtest feedback surveys.

An early working build (known as the Alpha build) of CloudBreakers featuring the first two mission areas in the Player versus Environment (PVE) game mode was released to those who accepted the invitation.

The users received an email which details the tasks they will have to accomplish as part of the playtest. The email instructed users to play CloudBreakers for 30 to 45 minutes for seven consecutive days. After each session, the players were asked to fill out a simple questionnaire form containing 11 questions. The survey collects both qualitative as well as quantitative data surrounding player behaviour, emotional responses, satisfaction [5], and additional general feedback.

The players were also asked to fill out a post-playtest survey as a means to assess their impressions of the game across the week.

# 2.0 Literature Review

This report discusses and analyzes subject matters that are foreign to chemical engineering concepts. This section serves to provide the reader with contextual explanations surrounding the games development industry as well as user experience research methodologies and principles.

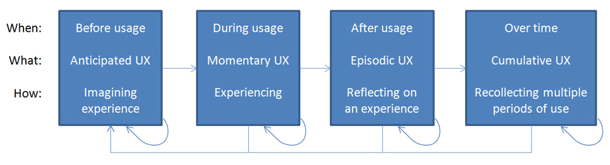
User Experience (UX) Designers are designers hired by companies to design the way how users interact with and perceive softwares [1]. Responsibilities of an UX designer typical involve the creation of logical workflows and user interactions, by making use of appropriate visual signifiers to communicate the role of interface elements. This is done by conducting in-person or digital user tests to observe user behaviours. Based on verbal, visual, or emotional feedbacks [6], the designer can refine and iterate the software based on this knowledge to create the “best” user experience [1].

User playtest is a process employed by game designers and developers to test a new game for flaws such as design issues, player feedback and interest, as well as software bugs before the game is actually released. Playtests are a subdiscipline of a much wider practice known as acceptance testing in engineering [7][9]. Playtests are tests specifically designed to evaluate player responses and software issues in video games [3].

The form of survey/study conducted is called a longitudinal diary playtest [3]. A longitudinal survey is a research studies methodology which aims to identify correlations in a different number of variables over a long period of time. It is a form of observational studies. In This playtest specifically the goal is to identify player expectations, gauge player satisfactions, and see how the player perceptions of the game changes over time (over the period of the week).

A few guiding UX principles that designers commonly use in the industry when designing products involve the following concepts:

* **Learnability** — ensuring that the interface is easy to navigate and the interactions are familiar and straightforward
* **Engagement** — ensuring that the experience is “addictive” to the user, instilling a positive emotional connection to the users
* **Pleasantry** — ensuring that the experience does not instill negative emotions to the user, minimizing confusions and frustrations
* **Intuitive** — ensuring that the core experience requires minimum thought input from the user, reducing cognitive load without removing functionality
* **User-Oriented Design** — ensuring that the product is designed around the user’s behaviour and usage patterns, instead of forcing players and users to adapt a certain behavioural trend



**Figure 2.1 User experience over time spans of use and non-use** [8]

The above figure is used as the guiding principle for designing the user playtest.

* **Anticipated UX** — The expectations that the user has prior to the play session, experiences that they imagine the playtest to unfold in based on experiences playing similar games
* **Momentary UX** — How the user felt while playing the game, during the play session (usually around the first 15 minutes of the play session)
* **Episodic UX** — Reflecting and absorbing the experience after the play session, some of the episodic user experience will emerge during the Momentary UX step as well (it’s important that the user is not interrupted during this reflection, so the user reaches their own conclusions without the researcher’s biased input)
* **Cumulative UX** — The user’s experience with the game after multiple use sessions, the cumulative experience used to summarize the overall experience

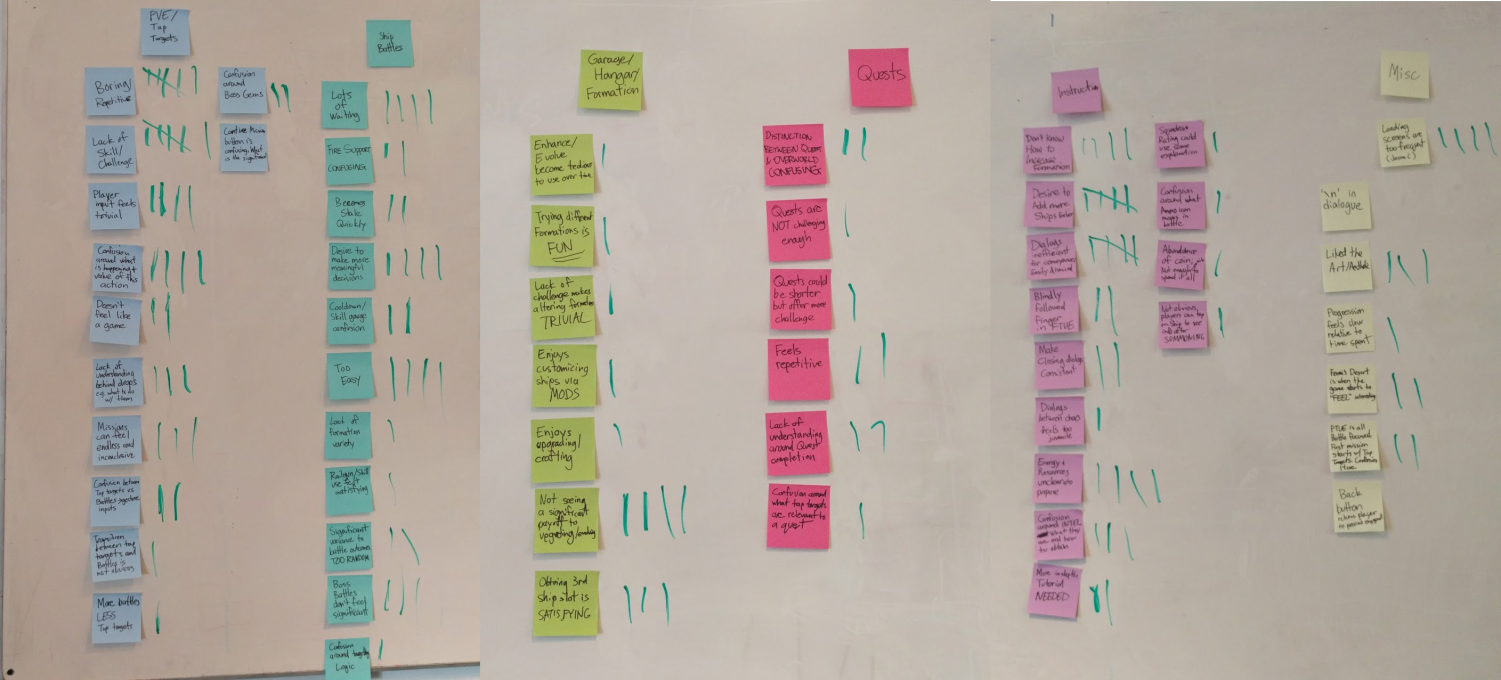
It is important to note that the Momentary UX is influenced by bias the user carries in from the first step — Anticipated UX. In order to ensure a positive experience for the user, the user’s expectations have to be met or exceeded in the Momentary UX step. Expectations, mindsets, moods, and even physical and contextual cues inside the game will all inject bias in the user experience [4]. The diary playtest study aims to capture these influences and shed light into the source of why the users may feel a certain way about the game UX as a whole, from a chronological point of view (how the user experience changes and forms over the span of a week) [5].

Business oriented goals are primary for the success of a company as a whole, but the issue of monetization is a primary concern of the product leads and game designers [2]. For UX designers, player satisfaction should come before business goals such as monetization [5]. As a result, the contents of this report will reflect that same sentiment.

# 3.0 Method and Materials

Two major web application platforms were used to gather the user feedback — TypeForm.com, and UserTesting.com. UserTesting.com players were paid for their participation, and submissions of their recorded play sessions were included in the forms in addition to the mandatory survey they were asked to answer in the emails.

The main survey which the users were required to answer involved two components, a multiple choice section in which they are asked to select their emotional response after the play session based on a list of pre-existing options, as well as 11 free form diary styled questions that prompts the user for any suggestions that they may have. UserTesting.com users also submitted video recordings with voiceovers for each of their play sessions as additional feedback.



**Figure 3.1 CloudBreakers user feedback categorization and tally process**

The free form feedback responses were collected and assigned categories based on the nature of the comments. The commentaries were sorted onto Stick-it notes to better quantitatively measure the feedback that was received. The occurrence frequency of each type of specific feedback was categorized and tallied based on the concerned area in the game.

The survey forms were created using TypeForm.com. The player invitations were sent out in Emails or delivered as newsletters in person. The qualitative responses were dissected and categorized using Stick-it notes, tallied with the classical use of dry-erase markers and a white board, and finally organized using Google Sheets.

# 4.0 Results and Discussion

In total, 171 entries were recorded, and 40 players filled out at least one diary entry with detailed comments and feedback surrounding how they felt about the game from an emotional standpoint [6][7]. The average player session was around 25 minutes in length.

Due to the fact that the author’s role at the company was an UX designer, the feedback data and commentary concerning software glitches and bugs are ignored, as that is the domain of responsibility for the developers. All results discussion will be based on the feedback around gameplay mechanics, player satisfaction and frustration (emotional feedback) [6], player motivation, and overall user interface and interaction experiences.

Two portions of the analysis was performed, a simpler quantitative analysis where the users are asked to select any number of words from a pre-made list which describes emotional responses, and a more complex analysis that was based on qualitative commentary from the free-form feedback questions.

## 4.1 Quantitative Data Analysis

|  |  |
| --- | --- |
| Fun | **58** |
| Satisfying | **60** |
| Frustrating | **41** |
| Buggy | **67** |
| Confusing | **65** |
| Intuitive | **25** |

**Table 4.1.1 Quantitative tally for player play session feedback**

The above table contains the summarized raw data from the quantitative multiple-choice section of the TypeForm.

From these tables it could be seen that there is an approximate balance between players who reported the game as being confusing, fun, buggy, and satisfying. It is possible that the amount of bugs and glitches player encountered definitely could have negatively affected the player experience.

The initial observations made here indicate that there are a sizeable number of players which found parts of the game to be enjoyable, fun, and interesting. However, since “Confusing” and “Intuitive” indicate opposite reactions when used to describe player experiences, a conclusion could be drawn that the interface and interactions players are faced is more confusing than it is intuitive in its current state.

In addition, it can be noted that “Frustrating” occurred much more frequently than should be desired. This is indicative that the current design of the game is problematic as certain aspect of the game does cause frustration to the users.

## 4.2 Qualitative Data Analysis

Next up, the qualitative feedback journal data was broken up into three major categories, and six sub-categories. All of the feedback was placed into one of three major buckets — Core Systems, Supporting Systems, and Others. Analogies in the board game Monopoly are provided here for readers that are unfamiliar with game design theories and mechanics.

Core systems are concrete parts of the game mechanics that the player directly interacts with. The “core” determines the overall characteristics of a game. This is sometimes referred to as the “basic gameplay”. The core system in monopoly is the buying and selling of property. A game is defined by its core systems [2].

Supporting systems are more abstract parts of the game that exist to improves the player experience, auxiliary components of the game that enhances the core experience to either provide progression or promote competition. An example of a supporting system in monopoly would be the Chance and Community Chest cards. The supporting system exists to provide flavour to the core system for the player [2].

In the context for the CloudBreakers playtest, Others refers to comments related to minor bugs, glitches, and commentary that are not directly related to either the Core or the Supporting systems; such as feedback related to the artwork and grammatical errors.

In the following results tables, criticisms or comments that indicate a negative emotional response will be denoted in plain text. Positive remarks and comments which show a positive emotional response will be denoted with an underline.

### 4.2.1 Core Systems

|  |  |  |  |
| --- | --- | --- | --- |
| **PvE/Tap Targets** | | **Ship Battles** | |
| Boring/repetitive | 6 | Lots of waiting | 4 |
| Lack of skill | 6 | Player agency and input feels insignificant | 4 |
| Player input feels trivial | 4 | Lack of challenge | 4 |
| Confusion around purpose of tap targets | 4 | Confusion around fire support system | 2 |
| Confusion around purpose of drops | 3 | Confusion between cooldown and skill gauge | 2 |
| Missions feel endless and inconclusive | 3 | Battles become stale quickly | 2 |
| "Feels like a tapping simulator instead of a game" | 2 | Lack of enemy variety | 2 |
| Confusion around boss gems | 2 | Variance in battle results too large | 2 |
| Confusion between tap targets and battles | 2 | Confusion around targeting logic | 1 |
| Significance of "Continue Mission" button is unclear | 1 | Skill use felt satisfying | 1 |
| Transition between tap targets and battles unintuitive | 1 |  |  |

**Table 4.2.1 Qualitative user feedback for CloudBreakers core gameplay systems**

Under Core Systems, the comments could be bracketed into two sub-categories — comments related to the PvE Sequences (tap-targets), and comments related to the Ship Battles (encounters).

The following are the most frequently occurring comments for the core system:

* Boring/repetitive (PvE): 6
* Lack of skill (PvE): 6
* Lack of challenge (Battles): 6
* Player input feels trivial (PvE): 4
* Player input feels trivial (Battles): 4
* Confusion around tap targets and the reason for destroying them (PvE): 4
* Noticeable amount of waiting in battle (Battles): 4

From these responses, it could be see that players wish they had more agency and input in the game. The player wishes to make more meaningful decisions more often.

Part of the reason why the tap-to-complete experience is rated so poorly is due to how easy the gameplay actually is relative to the player expectations. Due to the amount of information and tactical customizations the players are presented, they expected the game to be a lot more challenging, however the tap-to-complete sequence is very lacking in player input. The game is currently not meeting the player expectations that were set out in the Anticipated UX. A number of responses have reported that they were able to complete entire quests chains and mission areas without looking at the screen at all.

The lack of meaningful decision-making coupled with the severe lack of challenge results in players feeling bored with the gameplay.

### 4.2.1 Supporting Systems

|  |  |  |  |
| --- | --- | --- | --- |
| **Quests** | | **Garage/Hangar/Formation** | |
| Confusion between overworld mission areas and quest panel | 2 | Enhance/evolve experience feels low impact | 4 |
| Lack of challenge with quests | 2 | Unlocking additional formation slots is satisfying | 3 |
| Lack of understanding around quest completion workflow | 2 | Small practical difference between different battle formations | 2 |
| Quests are too repetitive | 2 | Customization of ships through mods is satisfying | 1 |
| Confusions around what tap targets are relevant to quest completion | 1 | Crafting/upgrading is satisfying | 1 |
| Quests are too long | 1 | Satisfaction around testing out different formations | 1 |
|  |  | Enhance/evolve experience is repetitive and tedious | 1 |

**Table 4.2.1 Quantitative user feedback for CloudBreakers supporting gameplay systems**

Under Supporting Systems, the comments could be bracketed into two sub-categories — comments related to the Quests, and comments related to the Garage / Hangar / Formation screens.

The following are the most frequently occurring comments for the supporting systems:

* Enhancing/evolve does not feel impactful: 4
* Unlocking additional formation slots is satisfying: 3

There have been repeated remarks about players not understanding the motivation for their actions in the game — evolving and enhancing, destroying tap targets, purpose of the quest and mission rewards. It has been noted that there is a thematic disconnect between interacting with tap targets and the Battle engagements. The Quests flow overall does not seem to be engaging for most users, but there have not been too many major complaints about the existing system.

However on the positive side, a large number of players did express feelings of satisfaction with the increase in progression and power that comes along with making use of the crafting and enhancing system. The studio could capitalize on this feeling of satisfaction and exploit this as an avenue for monetization.

### 4.2.3 Others

|  |  |  |  |
| --- | --- | --- | --- |
| **Instruction** | | **Misc** | |
| Dialogue ineffective for conveyance | 5 | Loading screens are too frequent | 4 |
| Desire to add more ships earlier | 5 | Error in dialogue messages | 3 |
| Don't know how to purchase more formation slots | 4 | Back button returns player to previous engagement | 3 |
| Purpose of each currency is inadequately explained | 4 | Enjoyed the art/aesthetics | 3 |
| Tutorial is ineffective | 4 | Fermi's Desert is the first difficulty-appropriate level | 2 |
| Confusion around purpose and acquisition of "Intel" | 3 | Abundance of coin | 1 |
| Confusion around purpose of "Ammo" | 2 | Progression feels slow relative to time invested | 1 |
| Location of "Exit" button is inconsistent | 2 |  |  |
| Tutorial does not instruct player on how to manage tap target sequences | 2 |  |  |
| Players don’t know that they can tap on ships after summoning to see info | 1 |  |  |
| Dialogue between characters is immature | 1 |  |  |
| Confusion around squadron rating | 1 |  |  |

**Table 4.2.1 “Other” quantitative user feedback for CloudBreakers (instructions and miscellaneous)**

Under Others, the comments could be bracketed further into two sub-categories — comments related to Instructions and conveyance (tutorial, in-game messages), and comments related to other miscellaneous parts of the game.

The following are the most frequently occurring comments for the other areas of the game:

* Dialogue ineffective for conveyance: 5
* Desire to add more ships earlier: 5
* Don't know how to purchase more formation slots: 4
* Purpose of each currency is inadequately explained: 4
* Tutorial is ineffective: 4
* Loading screens are too frequent: 4

The players find that the current tutorial and instructions systems placed in the game is insufficient for relaying the game mechanics. The current tutorial being completely focused on the Battles sets the precedent for the player to expect an overall PvE experience akin to Battles. However, the first 15 minutes of the play sessions has players destroying tap targets which feels rather uneventful by comparison. As mentioned earlier, there is a thematic disconnect between interacting with tap targets and the Battle engagements, and this was found to be confusing for a lot of players.

The top three criticisms in the “Misc” category are all software bug related remarks, the engineering team could use this feedback to eliminate existing errors. On the game progression front, players feel that the game difficulty versus time, and player strength versus time is inappropriately balanced. The overall player progression and game difficulty feels slow.

On the positive side, there were numerous remarks complimenting on the game for being aesthetically pleasing, or the artwork being very well done. As previously mentioned, the studio would do well to learn from the parts of the game that the players really enjoy, and potentially use this as a channel for revenue generation.

# 5.0 Conclusions

A large amount of data was collected during the player feedback survey. The information that was collected spanned many different areas of the game. From the core game mechanics, to the quests which support the core game, to even discussions surrounding the artwork used in the game. A conclusion must be carefully drawn using the information gathered for both the qualitative data in addition to the quantitative. The researcher must also be careful that the conclusion reached does not include personal biases.

After discussing and evaluating all of the responses, for both the frequency of the issue, as well as how the responses were worded, three common themes were discovered:

* Players derived immense satisfaction in seeing contribution to their own success
* All forms of progression should feel immediately impactful and communicated to the player clearly
* Desire to better understand the game’s core mechanics and supporting systems

Users want to feel like they are earning their rewards and victories; the players find the rise in challenge to be satisfying. The game right now is too easy and simple, and does not matching the player expectations that were formed in the Anticipated UX step.

The game is definitely not ready to compete on the iOS or Android App market in its current state, and will require a lot more work and overhauls in all areas of the game to address those problems moving into the beta stage.

# 6.0 Recommendations

On the PvE side, implementing or reworking the current PvE workflow to make the tap-targets feel more interactive or more engaging will lead to greater player satisfaction. Players wish to make more meaningful decisions. On the battle side, the battles could be more challenging; players wish to be clearly rewarded for making strategically-viable decisions.

Player progression and game difficulty could be increased at a faster rate. This will allow players to spend more time in the more interesting areas of the game. Being rewarded with spending time wisely also ties into the first point mentioned in the conclusions of making meaningful decisions both inside the core system as well as the supporting systems.

The tutorial and in-game conveyance needs to be revised, as it currently stands it suffers a lot of problems, and is very ineffective for relaying instructions to the players.

The engineering team could use the feedback gathered during the play sessions to eliminate software bugs and reduce the amount of frustrations players encounter.

# 7.0 List of References

[1] Albert, W., & Tullis, T. (2013). *Measuring the user experience: collecting, analyzing, and presenting usability metrics*. Newnes.

[2] Crawford, C. (2003). *Chris Crawford on game design*. New Riders.

[3] Davis, J. P., Steury, K., & Pagulayan, R. (2005). A survey method for assessing perceptions of a game: The consumer playtest in game design.*Game Studies*, *5*(1).

[4] Fleming, J., & Koman, R. (1998). *Web navigation: designing the user experience* (p. 166). Sebastopol, CA: O'reilly.

[5] Garrett, J. J. (2010). *Elements of user experience, the: user-centered design for the web and beyond*. Pearson Education.

[6] Ho, A. G., & Siu, K. M. (2009). Emotionalise design, emotional design, emotion design. *Proceedings of International Association of Societies of Design Research*.

[7] Katz, A. (1990). The strategic structure of offer and acceptance: game theory and the law of contract formation. *Michigan Law Review*, *89*(2), 215-295.

[8] Roto, V. (2010). *The User Experience White Paper.* Dagstuhl Seminar on Demarcating User Experience.

[9] Wixom, B. H., & Todd, P. A. (2005). A theoretical integration of user satisfaction and technology acceptance. *Information systems research*,*16*(1), 85-102.

# Appendices

*The raw collected data used in this report contains sensitive user information including billing and personal information. For this reason, they will not be included in the appendices as they are deemed confidential information by the employer of the author. They are available upon request with the consent of the employer.*