

Player perceptions of Pokémon Go

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Spelares uppfattningar om Pokémon Go

Abstract

In a recent pilot study, it was revealed that certain players of Pokémon Go did not account for the game while asked to specify the games they played regularly, although they had previously mentioned that they play the game daily. This paper will explore those player's perception of Pokémon Go in aim to understand why they did not account for the game. This study uses a series of interviews of the participants to explore how they perceive the game. The interviews are analysed thematically using predefined themes and the results suggests that the reason to why the game was not accounted for might be related to the pervasive nature of the game.

Keywords: Pokémon Go, pervasive games, qualitative research

Abstrakt

I en förstudie framkom det att vissa spelare av Pokémon Go inte tog hänsyn till spelet när de ombads ange vilka spel de spelade regelbundet, även då de tidigare nämnt att de spelar just Pokémon Go dagligen. Denna uppsats kommer att undersöka dessa spelares uppfattning av Pokémon Go i syfte att förstå varför de inte räknade med spelet. Denna studie använder ett antal intervjuer av deltagarna för att undersöka hur de uppfattar spelet. Intervjuerna analyseras tematiskt med fördefinierade teman och resultaten verkar tyda på att anledningen till att spelet inte beaktades kan vara relaterat till dess genomgripande natur.

Keywords: Pokémon Go, genomträngande spel, kvalitativ forskning

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1 Introduction

1.1 Background

In a recent pilot study about free-to-play games it was revealed that Pokémon Go (Niantic, 2016) was not really considered a game by some of the participants (Palmstedt, 2016). The study consisted of interviews and the participants was first screened by a short survey about gaming habits to find participants who regularly played different types of free-to-play games. One of the games presented in the survey was Pokémon Go, and all participants that were selected for interviews had stated that they play Pokémon Go on a daily basis in the survey. However, during the interviews when asked what games they played regularly, none of the respondents even mentioned Pokémon Go. When this pattern had been identified after the interviews, a brief follow up was made with some of the participants asking why they had stated that they play Pokémon Go when prompted in the survey, but failed to mention it when they were asked in the interview. The common answer to that was that they didn't really think of Pokémon Go as a game in the traditional sense. The aim of this paper is to try and shed some light as to why it was not considered a game by the players.

1.2 About Pokémon Go

This section of the paper is meant to explain the game Pokémon Go and some of its features for readers that are not familiar with it.

Pokémon Go is a Location Based Game for mobile devices developed by Niantic and published by The Pokémon Company in 2016. The game features Augmented Reality technology using the device's camera and gyroscope. The players set out in the real world, catching pokémon with the help of their mobile devices, typically a smartphone or tablet. When players move around in the real world, the player's avatar will move in a corresponding location in the game world. The game world is a digital representation of the real world based on Google maps. Throughout the game world there are different spawn points for pokémons. These spawn points have different

biome traits that determine which types of pokémons are more likely spawn at that particular area. For instance, a lake in the real world are likely to have a spawn point with a water biome, which would increase possibility of water type pokémons being spawned there. The player can interact with objects in the digital world by moving their avatar close enough to the object and clicking on it. Objects than can be interacted with are stationary objects in form of Pokéstops and Gyms that are present at the same location in game overtime. Other objects that can be interacted with are randomly spawned pokémons that can be caught by the player. There are numerous factors that comes into account when determining the spawn rate and type of pokémons that are being spawned. These factors include proximity to pokéstops and gyms, biome, use of items and special events in the game.

To catch Pokémon, the player clicks on a discovered pokémon in the game world which will generate a scene where the player can attempt to catch the Pokémon by throwing pokéballs at it. In this scene, the player may opt to turn Augmented reality mode on or off. With Augmented reality mode on, the game will use the device's camera and gyroscope to make it look like the Pokémon is standing in the real world. To throw the ball, the player swipes the ball on the screen while aiming at the Pokémon. The player may also use different consumables to increase their chances of successfully capturing a pokémon.

Pokéstops are places representated by objects in the game that provides players with consumable items like pokéballs. A pokéstop may be visited once every few minutes and will provide approximately 3-7 items per visit.

Pokégyms are locations where players can engage in combat with another players Pokémon. The battles are not played live between players, but instead a gym-owner assigns a defending pokémon to a gym and rival players may challenge the gym by battling against the assigned pokémons. Multiple players of the same faction may assign defending pokémons to the same gym depending on the gyms prestige level. Higher level gyms are therefore harder for rivals to beat. The reward for controlling gyms can be gathered once in every 21 hours, and consists of in game currency that can be used to purchase in game items at the store and stardust that are used when evolving pokémons.

The pokémons themselves have different capabilities such as type, HP and different move-sets. Different types of pokémons are stronger or weaker when paired up against other pokémons of a certain type. For instance, a water type pokémon are strong against fire types but weak against electric types. The strength of the pokémon are measured by two values: Combat Power (CP) which is displayed in the game and Individual Values (IV) that are hidden in the game. Even though IV is hidden in the game it can be calculated manually by decoding the information given when inspecting the pokémons in the game. There are numerous IV-calculators available on the market and online that players can use to calculate their pokémons IV automatically. The use of these calculators is however not supported by Niantic as they violate the games Terms of Service.

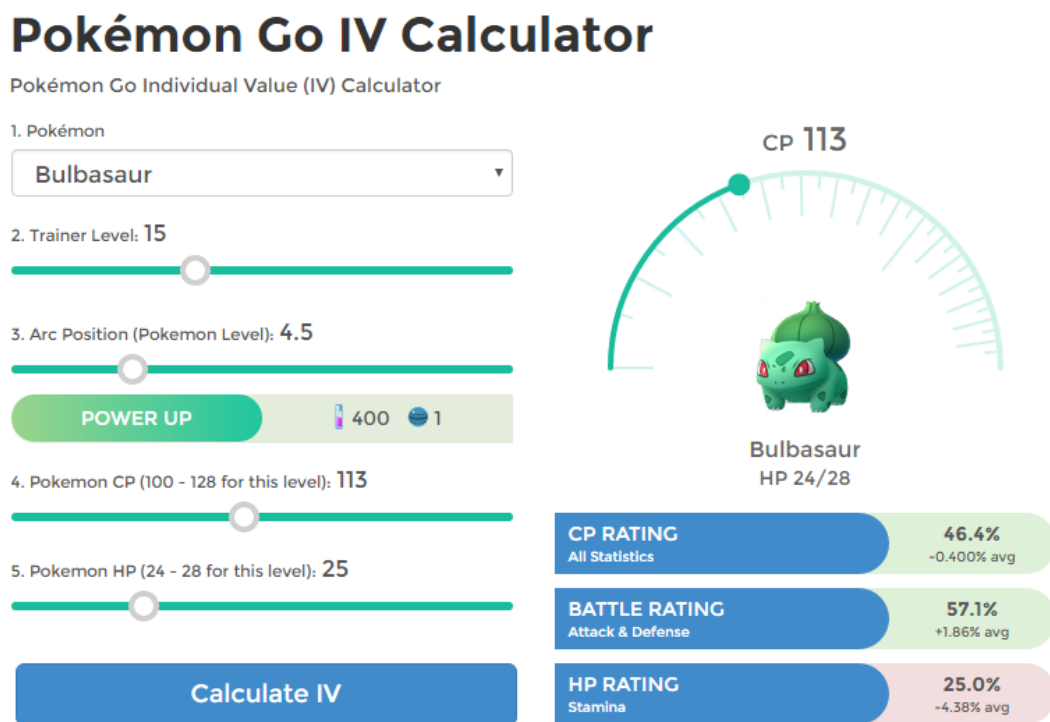


Figure 1: example of IV Calculator software

1.3 Pilot study

The general topic of the pilot study is unrelated to the topic of this paper. Therefore, the pilot study will not be covered inside this study to avoid any confusion to the reader. Although of different topics, the pilot study is referenced throughout this paper as some of its results are relevant to this study.

1.4 Definition of Hardcore and Casual players

In the pilot study the participants were formed in two groups labelled as hardcore and casual players (Palmstedt, 2016). These labels were defined by the type of game the players preferred to play and is not to be confused with the general term of casual and hardcore that is used to describe a certain style of play or level of engagement in a certain game. The definition of casual games in this case has been derived from two of the main components of casual game design described by Jesper Juul: *usability* and *Interruptibility* (Juul, 2010). Casual games are hence defined as games with simple gameplay that can be played in short bursts of time and does not require any great commitment by the player. Hardcore games are defined as the opposite; complex gameplay that usually requires longer play sessions and an increased level of commitment.

1.5 Aim and research questions

The aim of this paper is to gain an increased understanding of how certain Pokémon Go players perceive the game. The players selected for this study have all disregarded Pokémon Go when it comes to naming games they play regularly, although they previously stated that they play the game on a daily basis. One participant mentioned that they did not initially consider Pokémon Go as a game as they felt it was too integrated in their everyday life. In regard of that statement I will take a closer look at the pervasive nature of the game, and explore how different players perceive the game. Another participant mentioned that they could consider Pokémon Go a game version of a fitness app. I will look at the player's perception of Pokémon Go as an Exergame in regard of that statement. In the previous study, I

compared the difference and similarities of players that preferred to play different types of games, casual and hardcore. I will continue in that fashion and defines the following research questions:

- 1- How does players' preference of different games affect how they perceive Pokémon Go as a game?
- 2- How does players' perception of Pokémon Go as an Exergame affect how they see it as a game?
- 3- How does the pervasive nature of Pokémon Go inflict on how players perceive it as a game?

2 Theory

2.1 Situational Context

A recent study featured Pokémon Go in four different types of contextual situations: sociality, interaction state, place, and reasons for playing (Kari, 2016). As we are considering Pokémon Go to be an exergame the context of reasons to play was investigated mainly on the points of view that game was played for fun, exercise or both. Sociality plays a big role in Pokémon Go. Here sociality refers to how the game is played: alone or in groups of two or more players. Interaction state refers to the state of mind the player conceives when playing Pokémon Go and place refers to the real-world location and situation where the game is being played.

2.1.1 Sociality

Prior research has shown that pleasure from a system could come from using the system itself, but also from interacting with others through the system.

Junglas et al defines four types of sociability affordances in virtual worlds (Junglas, Goel, Abraham and Ives, 2013). These affordances are: sociability supported by shared representations, sociability supported by shared understanding, sociability supported by shared context and sociability supported by shared activities. These sociability affordances influence the context of sociality.

Shared representations are defined as the sense about meaning of artefacts person have in the virtual world. Individual players will find it easy to structure interactions with other players around the common meanings of the artefacts, and what can be done with them. Shared understanding is defined as the sense an individual player has about what other players mean when they are communicating in the game. When players interact in the game they have their own perspective in mind and can also make an informed guess of how other players identifies the same situation from their perspective. Shared context is defined as a player's sense about their situation or location in the virtual environment. Close to the meaning of the word "a place" in the

real world, where a place can be “at work” or “at home”. People will typically have different social experiences in those places, and the same goes for the different contexts in a virtual world. Shared activity is defined as activities that are engaged in by the player along with other players.

The sociability aspects of Pokémon Go are quite interesting when looking at these definitions as most of the social activities of the game occurs off-screen and not in the actual game itself. In Pokémon Go, there are currently no direct way of communication between players. Certain activities such as battling in gyms can however be observed by other players and could be considered an indirect form of communication. In Pokémon Go the only time you could actually see another player’s avatar is when you are inspecting gyms. Multiple players of the same faction can also enter a gym simultaneously and battle together against the current gym-owners. Other than that, there is no direct form of interaction between players in the game itself.

2.1.2 Interaction State

In the reversal theory proposed by Apter (1989) the author presents pairs of meta-motivational systems which steer human behaviour: “telic” and “para telic”. Kari (2016) presents these systems as two different states: the telic task-oriented state and the para telic activity-oriented state.

The difference in these states determines the motivation of the player’s activities in the game. Telic oriented state indicates that the player is focused on achievements and future goals and is considered a more serious state than the activity oriented state that indicate that the player is just enjoying the activity itself in the moment, a more playful state where the player is not really considering future consequences. In Pokémon Go an example of task-oriented play is a player who’s mind is set on reaching a certain level or catching a certain amount of a specific pokémon. An example of activity-oriented play is spontaneous play with only the enjoyment in mind (Kari, 2016). A player could be task-oriented at any given moment and in another moment, their mind-set could be in an activity-oriented state.

2.1.3 Reasons to play

The term “exergame” is used to describe games that promote physical activities. Exergames can be sub divided into two main groups: games specifically designed to use an exercise input device and those implementations using a particular genre, or a generic game to provide exercise (Wylie and Coulton, 2008). Pokémon Go uses the positioning features of mobile devices as a Location Based Game (Rashid, Mullins, Coulton and Edwards, 2006) to promote physical activity. Since it is not required to use a specifically designed peripheral to play the game, Pokémon Go falls into the second group. It’s fair to mention that there indeed exists a device specifically designed for Pokémon Go called Pokémon Go Plus, a special bracelet that tracks movement and allows the player to do certain in-game tasks automatically, without direct interaction with the phone or tablet. Since Pokémon Go can be placed in a category of exergames with these definitions, and participants from the pilot-study preceding this paper (Palmstedt, 2016) mentioned they compared Pokémon Go to a fitness app, the context of reasons to play in this study will be focused mainly on if the participants play Pokémon Go for fun, exercise or both.

2.1.4 Place

Place refers to both the *physical location* the game is being played as well as the *situation* where Pokémon Go is being played (Kari, 2016). An example of a physical location can be at home, at school or at work. Situation could be “waiting on the bus” which is a specific situation that can take place in numerous different physical locations. As Pokémon Go is designed as a location based game promoting movement, it is expected that the participants will present numerous different places during a session.

2.2 Magic circle

According to Huizinga (1938) the magic circle is what separates and divides the game world and the real world. The term magic circle was Huizinga’s choice of

words used to describe the border between contexts, where a game takes place within the context and everything else resides outside of it.

“The arena, the card table, the magic circle . . . all are in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart” (Huizinga, 1938)

Huizinga did not focus on games or play specifically, but rather focused on the playful elements in culture. Cultural practices such as law, science, poetry, war, philosophy and art comes out in play-like processes. He argues that games and play as a cultural phenomenon has boundaries of time and space, but also that they are an important part of daily life. In game research today, the concept of the magic circle is still used to describe the border between the game world and the real world (Tekinbaş and Zimmerman, 2003). As it is usually a divider of the game world and the real world it is especially interesting to study it in the case of Pokémon Go. Do the players identify this border if Pokémon Go does not feel like real game to them? Pokémon Go is a pervasive game. Thus, it does not follow the same rules of the magic circle as games in the traditional sense. Pervasive games are not easily defined. Many different forms of games have been grouped under the concept of pervasive games. In a conference paper from the 2005 DAC, Marcus Montola suggests a conceptual framework that can be used to analyse different ways that games can be considered pervasive (Montola, 2005). In the paper Montola explains the concept of the magic circle as it is used by Tekinbaş and Zimmermann (2003) as a description of regular games. Regular games are played in certain spaces at certain times by certain players. These attributes are usually defined before the games begin in traditional games. Furthermore, the attributes can be individually expanded thus creating different forms of pervasiveness.

“Pervasive game is a game that has one or more salient features that expand the contractual magic circle of play socially, spatially or temporally”(Montola, 2005)

In the pervasive discourse: an analysis (Nieuwdorp, 2007) it's concluded that the term pervasive is open to interpretation. This supports the need of an analytical

framework like the one presented by Montola that allows analysing the elements of pervasiveness individually.

2.2.1 Spatial expansion

In regular games, the spatial attribute of the game is usually restricted to a predefined playing area. A soccer field, a gaming table, a computer screen are all examples of socially constructed locations for playing games. Spatial expansion means that a game goes beyond such limitations, and the game might be played anywhere and everywhere. (Montola, 2005)

2.2.2 Temporal expansion

Regular games are played in play sessions restricted by time. The temporal element of the regular games may be adjusted and manipulated. Examples of this is overtime in a hockey game or a group of players pausing a game session to proceed at a later time. By expanding the temporal element, a pervasive game session might be interlaced and mixed with the player's ordinary lives. (Montola, 2005)

2.2.3 Social expansion

Social expansion might be controversial in some cases. If a player is defined as "a person having stakes in the game who influences its progression by taking actions within the constraints of the rules" (Montola, 2005), then one could argue that spectators at soccer game are indeed also players. They most likely have at least an emotional stake into the game and their cheering may boost the morale of the players on the field. Social expansion might be done in different ways, some of which may seem indifferent while others could have great impact on the game. Social expansion also offers opportunities of community forming by encouraging spontaneous interaction of unknown people.

2.3 Exergame

The term “exergame” is used to describe games that promote physical activities (Wylie and Coulton, 2008). As Pokémon Go is a location based game that requires players to move around it has been suggested that the game promotes physical activity, and should be qualified as an exergame. One of the participants in the pilot study mentioned that they could possibly view Pokémon Go as a fun version of a fitness app rather than a straight up game, which would support the claim of Pokémon Go as an exergame (Palmstedt, 2016). However, a recent study measuring Pokémon Go players walking habits before and after installing Pokémon Go seems to diminish this notion (Howe et al., 2016). In that study, it was revealed statistically that the studied players only had a marginal increase in the number of steps taken daily immediately after Pokémon Go was installed. The number of steps would then gradually decrease over the following weeks and would return to normal values after five to six weeks. That suggests that in the long-term Pokémon Go’s impact on physical activity are negligible.

3 Methods

This study uses semistructured interviews as data gathering method and thematic analysis as analytical method (Cote and Raz, 2015). Four participants from the pilot study (Palmstedt, 2016) was selected. Interviews was conducted with each participant in conjunction to one of their normal play sessions of Pokémon Go. The interviews were divided into three parts for each participant. Data from the interviews was recorded by writing notes and recording audio. The audio records was later transcribed and the transcripts and notes was coded and analysed using a thematic analysis (Cote and Raz, 2015). To answer the research questions, interviews focus on how the participants acts and reacts on the game in regard of the expansive elements of the magic circle, the situational contexts, level of engagement and physical activity.

3.1 Interviews

Each participant was interviewed in three steps with breaks in between. The interviews focused around a, for the participant, normal session of Pokémon Go. The interview sessions where initiated at the participants home. The reason for this was to establish a relaxed environment for the participant.

The first part of the interview was in the form of a structured interview and consisted of general warmup questions and questions regarding planning and preparations in regard to a play-session of Pokémon Go. After the initial part of the interviews was completed, the participant and researcher got dressed and prepared to venture outside.

The second part of the interview was in form of a semistructured interview and was conducted outside while the participant was playing. The participant was encouraged to speak their mind and talk about their actions while they where playing and the researcher observed the participant during the play session and asked questions in response to the participants actions in conjunction to some predefined questions. The reasons for conducting the interview during a play session was to find questions and answers that might not have surfaced otherwise. Some questions were asked the participants to clarify what the players did and why they did it during the

session after certain actions. After the play sessions, the participants was allowed a short break while the researcher prepared the last part of the interview.

The third part of the interview was in form of a semistructured interview and consisted of questions regarding interview topics that had not been accounted for during the play session. The interviews were recorded and transcribed before further analysis. The Data was analysed by using a Thematic Analysis with themes organized in predefined categories that would reflect the topics in the theory section of this paper.

An interview guide was created to keep track of the topics (Cote and Raz, 2015). Questions were divided into four categories: general questions about experience of Pokémon Go, questions regarding physical activity, questions regarding Pokémon Go as a pervasive game and questions about how players look at Pokémon Go in relation to other games. In conjunction with those categories, question based on observations were added individually before the third part of the interview.

3.2 Participants

Four participants from the pilot study (Palmstedt, 2016) was selected for this study. Two of the participants usually played hardcore games, and two participants only played casual games. Participants was selected on account that they had participated in the preceding pilot study and failed to mention that they played Pokémon Go on a daily basis when they actually did.

Table 1: participants

	age	Gender	Game preference	Hours/week playing Pokémon Go	Current Level
P1	43	Female	Casual games	14+	30
P2	31	Male	Hardcore games	4	24
P3	51	Female	Casual games	10	29
P4	22	Female	Hardcore games	14	29

3.3 Data analysis

The data from interviews was coded and analysed using Thematic Analysis (Cote and Raz, 2015) with themes and categories that would reflect the topics in the theory section of this paper.

The use of thematic analysis to analyse the data was chosen as it is effective at analysing large amounts of qualitative data. Some of the themes extracted from the data could be directly connected to the corresponding theory and is thus named to reflect that.

Table 2: Thematic coding

Category	Theme
Situational Context	Sociality
	Place
	Reasons To play
	Interaction State
Magic Circle	Spatial Expansion
	Temporal Expansion
Physical activity	Physical Activity pre-installation
	Physical Activity post-installation
Player Engagement	Planning and preparations
	Additional Software
	Player versus Environment
	Player versus Player
	Collecting Items

4 Results

In this section, I present the results by theme. Quotes from transcripts have been inserted to support the content.

4.1 Situational context

4.1.1 Sociality

Pokémon Go is a social game, although the game mechanics doesn't support direct interaction with other players inside the game at the current time, all participants in the study except P2 said that they enjoyed playing it together with others.

“I prefer playing with company rather than going on these routes by myself.” (P4)

Noteworthy is that during the interview of P1 the participant plays the game with her husband and son during the play session. The son seems to enjoy the session, although he does not have a device to play on himself. He makes noises and motions with his fingers, apparently playing on a make-belief device.

In a traditional game, the players are defined by the magic circle: you are either in the circle and playing the game, or you are outside of the circle and thus not playing the game. The lack of interaction between players in the game world makes other players presence mostly indifferent in the game world, with the exceptions of gym battles.

“Sometimes you see a bunch of people hovering over their phones by the gym, that's when you know they are playing.” (P3)

P3 says here that anyone can be a player, and thus a potential opponent in the game, but you can't really tell who is who unless you see them playing.

“I went to one of the events at *****, it was really fun to meet other ‘poke-mongos’ [Pokémon Go players] and play together” (P4)

The participant enjoyed interaction in the physical world with other players, even though those interactions have no effect in the game world.

4.1.2 Place

The situational context of place can be both a physical location as well as a situation. Here places refers to locations and situations in which the participants usually plays Pokémon Go. All participants played the game in multiple places, two participants mentioned that they had special planned routes they sometimes use for playing Pokémon Go. The most common place participants play the game are in transitions between other places, like on the way to the store or work.

“I never plans any routes when playing, I only plays the game when I have other errands.” (P2)

During the play sessions, P3 played while on her way to a local takeaway restaurant and P2 played on his way to work. This suggests that Pokémon Go is usually a secondary activity that is conducted in conjunction to a main activity, in these beforementioned cases that main activity would be transportation.

“Occasionally, when the weather is nice and I don’t have any special plans, I go out on runs like these.” (P4)

P4 mentioned that she occasionally goes on routs like the one during the session, if the weather is fine and she doesn’t have any special plans, which suggests that even tough Pokémon Go usually is a secondary activity, that does not exclude it from being a main activity in certain cases.

4.1.3 Reasons to play

The theme reasons to play refers to the situational context why people play a game. There might be many reasons to play, and in his study we have narrowed it down to refer to if the participant mainly plays Pokémon Go for fun, exercise or both. All participants said that they play the game for fun rather than exercise. Two of the participants mention that they consider any potential extra exercise that would come out of playing the game as a bonus, but they clearly stated that they would play the game even if there wasn't any exercise involved.

“nah, if I want to exercise I would just go out for a run instead, and not get distracted by a game. But sure, it doesn't exactly hurt your health to play” (P2)

This would mean that even though the participant appreciates that Pokémon Go promotes exercise it does not do it very efficiently and the participant would rather do other activities like running for the purpose of exercise.

“yeah, sure, you get some exercise but that's no reason to play actually as you could just play from your car if you are feeling lazy” (P4)

In this quote P4 suggests that even though one could say that Pokémon Go promotes moving around, it does not require physical activity to do so in all cases. Playing while driving slowly in a car would still grant you the same benefits inside the game as walking would.

4.1.4 Interaction state

Interaction state in this study refers to the meta-motivational states task-oriented state and activity-oriented state (Kari, 2016). Kari argues that activity in games are either motivated by the task or by the activity itself. In Pokémon Go a task oriented activity would be if the player is motivated by reaching a certain level, or catching a certain pokémon. The opposite would be if the player was motivated by the activity itself, either by just enjoying the feel of swiping with fingers or seeing the avatar move in the game world. All participants showed variance in their interaction state, they said they mostly just enjoy the feeling of catching pokémons, while they still have long term goals in the back of the head. Certain sessions seem more task oriented than others: all participants stated that hey dedicate certain sessions towards evolving pokémon, these particular sessions are purely task-oriented.

“I would say that I evolve at least once a month, sometimes twice, if I look at the past” (P1)

“I never play the game when I’m home, other than when I use a lucky egg to evolve, but that only happens once every other month or so.” (P2)

P1 evolves pokémon once or twice a month while P2 says he only evolves once every few months. It turns out that the casual players of this study more often played in a task oriented state than the hardcore players did.

“I really don’t like evolving, it is so time consuming and I rather just play regularly instead. But sure, it’s good xp [experience points]”
(P2)

Here P2 says that he does not really enjoy the task oriented activity of evolving pokémons, which suggests he prefers playing in an activity oriented state. These

results come to some surprise to the researcher, as hardcore players are often described as “serious gamers” and task oriented activity is considered the more serious of the two interaction states. It was expected that the casual players would prefer the activity oriented state while the hardcore players would prefer the task oriented state.

4.2 Magic Circle

4.2.1 Spatial expansion

Spatial expansion is something that according to Montola concerns the Magic Circle (Montola, 2005) and refers to how a pervasive game may expand the space of the magic circle to involve more space than just the traditional area of play, like a computer screen for example. In Pokémon Go spatial expansion is determined by the connection between the virtual world and the physical world. Everywhere in the physical world have a virtual representation in the virtual world in form of maps, and in certain locations the physical world is represented by stationary objects like Pokéstops and Pokégyms. All participants acknowledged the spatial expansion to be one of the key features of the Pokémon Go.

“Whenever I’m travelling to a new town, I’ll have a look in the game to see how many pokéstops are nearby” (P1)

When playing Pokémon Go travelling to a new location in the physical world corresponds to when you enter a new level in a traditional digital game. Different levels typically have different layouts, and in Pokémon Go that layout is represented by Pokéstops and Pokégyms.

Some of the participants said that even though the potential to play is always there, wherever you are, it is harder to enjoy the game in more rural areas where pokéstops and gyms are more scarce.

“My boyfriend’s mom lives out on the country. When he stays there, they’ll have to take the car to get to the different pokéstops”
(P4)

In this quote, you can see that living out on the country means that you usually have to drive a car to get to different pokéstops.

4.2.2 Temporal expansion

Like spatial expansion, temporal expansion covers the magic circle (Montola, 2005) and refers to the time frame of a game. In traditional games, a game session is limited in time, the session exists temporary and have a defined beginning and end time. Usually this timeframe can be manipulated in various ways: a soccer game goes into overtime, or a playmate goes home early from a game night. In Pokémon Go the temporal expansion covers the games persistence in time. Even if you stop a particular game session the game keeps running on without you. Pokémons will spawn and vanish in the game world even if you are not there. Two participants mentioned that they have logged in just to catch a certain pokémon when other players had notified them about its presence.

“One time my boyfriend said there was a Dragonite at a nearby pokéstop. I didn’t have it yet so I dropped what I was doing and rushed down to try and catch it” (P4)

In this quote P4 says that she was engaged in an unrelated activity, but she stopped what she was doing so she could engage in activities in the game instead. This suggests that Pokémon Go has a persistent presence in the player’s life, although the player was not logged in at the time.

“Sometimes it gets frustrating when you log in to collect the gym rewards and then you see that you have been kicked out of all your gyms” (P3)

This quote supports that the game goes on by itself, even though the participant was not logged in he had lost position in the game. The temporal expansion of Pokémon Go indicates that the gameplay is not defined by individual games sessions, but can be more viewed as one single expanded session.

4.3 Physical Activity

4.3.1 Physical activity pre-installation

An Exergame is a game that promotes physical exercise. As one of the research questions of this paper involved regarding Pokémon Go as a potential exergame, it was imperative to have some reference to the participants exercising habits prior to installing the game. Specific interview questions were aimed at gathering such data and the results generated this theme. All but one of the players considered themselves being of an average level of physical activeness prior to installing the game. None of the participants frequented any gym or fitness-centres.

“My work demands that you’re in a certain level of physique, but the requirements are not that high” (P2)

This quote shows that the participant consider himself to be of average physique. As he is referring to his work requirements, it suggests that it represents his physical activity prior to installing Pokémon Go.

“we love taking walks in our family, if the weather is nice we can sometimes be out just walking for hours” (P1)

The quote indicate that the participant frequently goes on walks, an activity that is similar to playing Pokémon Go in means of physical exercise.

“No, I don’t exercise. I hate running or going to the gym and stuff”

(P4)

One of the participants considered herself of not being physically active at all.

4.3.2 Physical activity post-installation

Physical activity post-installation refer to physical activity generated or promoted by Pokémon Go. Activities unrelated to Pokémon Go such as weightlifting or swimming is not considered in this theme. Only one of the participants felt that they had increased their level of physical activity after the game was installed. The other participants felt no change at all regarding physical activity.

“we usually take walks together like this, and now we take those opportunities to play Pokémon Go together.” (P3)

The quote confirms that installing Pokémon Go did not affect the amount of walking made by the participant. Although Pokémon Go didn’t have a great impact at how much the participants walked, it did however have an impact at where they walked.

“If I need to go to the local grocery store, there are two routes I could take. One of which feels slightly shorter, but the other route takes you past two pokéstops. Before Pokémon I always took the shortest route but now I almost exclusively take the one with the pokéstops, unless I’m in a hurry.” (P2)

This quote shows that playing Pokémon Go influences the participants' choice of walking-routes in everyday life. One of the participants stood out in the group regarding their physical activities.

“well, I would say I walk A LOT more now than I did before.” (P4)

This participant was the only one that felt Pokémon Go had an impact on their physical activity. It is noteworthy that it is the same participant who was the only one who considered herself of being below average in regard of physical activity prior to installing Pokémon Go. Looking at these results, one could easily spot a connection between a participant's current level of physical activity in correlation to how Pokémon Go influences that.

4.4 Player Engagement

4.4.1 Planning and preparations

Planning and preparations refers to activities, both intellectual and practical, that a player conducts in conjunction to a game session. In Pokémon Go such preparations might be determining what route to take during a session, or deciding on whether extra power banks will be needed during the session. All participants dedicate special play sessions to evolving pokémon. Two of the participants mentioned that they have special routes that they have plotted specifically for playing Pokémon Go. All players mostly play spontaneously when they are doing other things.

“If I do not have any special errands or reasons to leave the house for a day, I have a special route I would take for playing Pokémon in order to not miss out on the streak bonuses.” (P1)

This quote shows that the participant has a backup plan. It suggests that the player mostly play spontaneously while doing other things, but also goes on predetermined

routes. The streak-bonus mentioned seems to be a common motivation for players to play regularly.

“I never plans any routes when playing, I only plays the game when I have other errands.” (P2)

P2 also mentions that he never plans any special routes when playing, but only plays the game when he has other errands to do. All participants mention that they dedicate different sessions for different purposes.

“I usually decide what I am going to do before I go out, I either focus on battling gyms or catching pokémons. [...] Sure, if I stumble upon a weak gym while looking for pokémons, I might just take the opportunity to capture it.” (P4)

This quote suggests that P4 approach is more planned, she decides what she is going to do before she goes out although she remains flexible if an opportunity arises.

As part of the preparations all participants brought power banks to prolong the life of their batteries.

. “I would probably not have purchased it [the Power bank] at that point otherwise.” (P2)

The participant mentioned he did not use the power bank for Pokémon Go exclusively, but he would probably not have purchased a power bank if it were not for Pokémon Go.

4.4.2 Additional software

Additional software is software other than the game itself that is used to engage in the game. In Pokémon Go such software includes IV calculators, maps and GPS manipulators. Two of the participants mentioned that they had used third party software while playing Pokémon Go. They use IV calculators when they are evolving pokémon and one of the participants also used software to fake GPS location.

“I use an IV calculator when I want to see which ones I want to keep.” (P3)

The quote shows that the participant admits to using IV calculator to determine which Pokémons to keep. IV is a hidden stat of the pokémon that determines its effectiveness in gym battles. Using an IV calculator gives the player an advantage.

“I have used spoofing software to catch the pokémon that are not available in Europe” (P4)

This player admits to using special software to manipulate the GPS of her device to “travel” in the game without physically relocating herself. Using third-party software is a violation to Niantic’s Terms of Service agreement, and is considered cheating by the developers as well as the participants. P4 mentions that she currently does not use the spoofing software to manipulate her devices virtual location as it leads to her being “soft-banned”, a temporary state in which she is unable to do anything in the game for a limited time.

4.4.3 Player versus Environment

Player versus Environment is a common term used in online games that refers to fighting computer controlled enemies in contrast to fighting other players. In Pokémon Go the environment randomly spawns computer controlled pokémons,

engaging with these allows the player to attempt to catch them. One of the main features of Pokémon Go that manifests in the player versus environment situations is the Augmented Reality mode. Using the camera on the device the game projects the pokémon on a real-life background. However, none of the participants uses the Augmented Reality camera when catching pokémon. Two main reasons were declared: the first being to save battery time and the other being that turning it off makes the pokémon appear in the centre of the screen and is thus easier to hit with the ball.



Figure 2: game view with Augmented Reality turned on and off

“not using the Augmented Reality camera mode as it drains too much battery in our opinion.” (P4)

This quotes shows that one of the main reasons for not using the Augmented Reality feature is to conserve batteries.

“It’s easier to catch them if they just sit there in the middle of the screen” (P3)

The other main reason to not use the Augmented Reality feature is that pokémons are easier to catch with it turned off, as the quote says.

The process of catching pokémons differs a bit among the participants. The main difference lies in how the participants' balls are being thrown. Both hardcore players use curveball when attempting to catch pokémon as this both generates a small bonus to experience points and slightly increases the chance of the pokémon staying in the ball. To throw a curveball, the player must rotate the ball with his finger until it begins to sparkle, throwing the ball while it sparkles will cause it to curve in the throw making it harder to hit the target.

“Hitting the pokémon with a curveball makes it more likely to stay in the ball.” (P2)

P2 gives a reasoning to why he uses curveballs: curveballs increase the probability of successfully catching a pokémon if it hits.

Both casual players throw the ball straight at the pokémon instead of using curveballs as they feel they have more control of the ball in that way. This means more frequently executing a *great throw* or *excellent throw* which grants a bonus to experience points.

“I try to control the throw; I almost always get great throw and extra points when throwing” (P1)

In this quote, you can see that the motivation for using straight throws is that it gives more control of the ball. As the hardcore players have been defined as players that usually prefers games with complex mechanics in relation to the casual players, it is noteworthy that the hardcore players also preferred using a more complicated catching mechanic in Pokémon Go.

4.4.4 Player versus Player

In contrast to Player versus environment, Player versus Player is a term used in online games to refer to fighting against other players. In Pokémon Go's current development state the only player versus player element are gym-battles. Only the casual players interacted with gyms during the sessions. One participant battled at a gym and won it during their interview. One participant inspected a gym but decided not to battle.

“This gym is controlled by another faction but it's prestige is too high to take over at this time” (P1)

In this quote, P1 inspects a gym before deciding whether to engage in battle, she decides not to fight as she estimate it would be too hard for her to beat.

“We might as well take the gym while we wait for the order to get ready.” (P3)

During the play session with P3, she played with her husband on their way to a local takeaway restaurant. In the quote they fight at a gym together, while waiting for their order to get ready.

None of the hardcore players interacted with any gyms during the interviews, while they played it was almost as if the gyms where not even there.

“I usually decide what I am going to do before I go out, I either focus on battling gyms or catching pokémons.” (P4)

P4 says that she decides what to focus on before embarking on a session and then sticks to that plan.

4.4.5 Collecting Items

Items is a common feature in games, in Pokémon Go items consist of pokéballs, potions, incubators and more. Getting items for use in pokémon can be done in two ways, either by purchasing the items in the shop for in-game currency, or by visiting pokéstops that are located throughout the game world. During the play sessions, all participants engaged in visiting several Pokéstops. It is a key feature of Pokémon Go and is the main resource for items. All players say that they try to get at least one pokéstop per day to get the streak bonus.

“Sometimes if I haven’t played so much I just run down to the church [a pokéstop] a few minutes before midnight. That way I can spin it twice for the streak.” (P4)

In this quote P4 says that she sometimes tries to visit a pokéstop twice in a row. The first time a player visits a pokéstop during a day, they get a bonus and a count towards the “seven-day streak” bonus. The timer for these first-time-visits resets at midnight, so by visiting the pokéstop a few minutes before midnight, the player can get two first-time-visits in a matter of minutes if they had not visited a pokéstop during the day.

“sometimes when I don’t play enough, my backpack gets full as I don’t use enough of my pokéballs. Then I have to throw stuff away before I can get the bonus.” (P2)

In this quote P2 demonstrates the importance of the streak bonus. He is prepared to throw away some of his items, then he fills up his inventory again. This shows that it is not the items that is the main reason for the streak bonus, but the extra experience points it generates.

5 Discussion

Semi Structured Interviews are a common method used for gathering data in games research. In this study, I split each interview into three smaller interviews around a normal play session. To define a normal game session, each participant where asked to think of a situation where they normally would play and were then asked if the researcher could join them for such an occasion and conduct the observation.

As this is a qualitative study, it's important to remember that the results are based on certain individual's actions and opinions, and the results do not necessary represent the entire player-base. This study is built upon findings from a preceding pilot study, and as the aim of this paper is to understand the actions of some of the participants from that study, therefore it felt obvious to conduct a qualitative study featuring those individuals.

The participant's general preference of games did not seem to have any significant impact on how they perceived or engaged in Pokémon Go. The only themes where there was a clear dividend between the hardcore/casual players where *Player versus Environment* (4.4.4) and *Player versus Player* (4.4.5). These differences are however considered as insignificant for the purposes of this study.

The results regarding Exergame properties of Pokémon Go suggests that the game should not be considered an Exergame as only one participant felt that the use of Pokémon Go had an impact on their physical activity level. I don't think you should look at the question as a simple yes or no question. Looking at the participant's answers on *physical activity before Pokémon Go* (4.3.1) in relation to their answers on *physical activity after Pokémon Go* (4.3.2), you can make the connection that the perception of Pokémon Go as an Exergame is related to the current physical level of the participant. The participants who perceived themselves as average in terms of physical activity did not believe Pokémon Go had any influence on their physical activities but the one participant who felt she where below average could see that the game promoted her to walk more than she did before.

While exploring the participant's perceptions of the pervasive features of the game it was revealed that the players does indeed regard the game to be integrated in their

everyday life, as suggested by a participant from the pilot study. The spatial and temporal extensions of the game seem to make the players engaged in the game in a perpetual manner. No matter when or where they are, they can always engage in the game activities. Especially the temporal extension seems to have an impact in this regard. A single game session does not reflect the entire game, but only represent a specific activity in the game world. Looking at the game from this perspective, it is not hard to imagine that the participants does not measure how much they play the game by the number of times they log in or out. It is all part of one huge game session. This might be one of the key reasons that players did not regard Pokémon Go when asked which games they play regularly: if they think of games that they turn on and off regularly, it would only seem natural to disregard a game that they never really turn off.

Considering the social aspects of the game in conjunction to its pervasive nature, it seems that the game extends beyond the installed application. One interview session witnessed players engaging in the game without a device of their own. Interviews also revealed that there is an extensive community involved in the game, and players engage differently in the world depending on their current focus. This suggest, in my opinion, that the game application itself is only a tool which a player may use to engage in the game world, the actual game itself is played anywhere and everywhere, regardless if the player is logged in or not.

5.1 Ethics

To protect the integrity of the participants, all names have been edited out and replaced by placeholder names such as P1, the husband, the boyfriend etc. Names of locations like workplaces, stores and stations have also been edited out from all documents.

5.2 Methodology criticism

Given the pervasive nature of the game, and the fact that players seem to dedicate certain activities to certain game sessions, a single game session will not cover all aspects of playing the game. In hindsight, it might have been more productive to use other methods like an ethnographic study instead of focusing on interviews. One

approach that would have better suited this study would have been *selective observation* where the researcher focuses on different activities during an ethnographic observation (Kawulich, 2005). In this case a selective observation could mean that the researcher observes the participant over a greater period, but only focuses on activities related to Pokémon Go.

5.3 Future research

There are a few potential research studies that I can propose at this point. First, one could argue that a variation of this study might be reproduced using ethnography. Observing participants for an extended period of time might produce more accurate data than what have been produced in this paper.

One interesting point from this study I believe is the regard of Pokémon Go and exercise. As this paper, mostly featured participants of average physical levels, the participant that stood out was the participant that was below average. Conducting a study on groups of participants of different physical levels, one could aim to see how playing the game impacts their physical levels differently. Do the players with lower levels of physical activity experience a greater impact from the game than the players with higher levels of physical activity? Regarding players that are already above average when it comes to physical activity, does the game make them less active as it might steal time away from their normal workout sessions?

One of the participants mentioned that she had used special software that are violating the Terms of Service agreement of the game and is thus considered cheating. As participants have stated that other player's actions do not affect the game for the player except in regard of gyms, it could be interesting to examine the general opinion and usage of such software by the general player base.

6 Conclusion

The aim of this study was to gain an increased understanding about how certain players perceived Pokémon Go. More specifically, the purpose was to try and find out why certain players did not immediately recognize Pokémon Go as a game they played regularly, although they had previously stated it as a game they play daily.

No conclusive answer was given to that specific question, although a plausible theory was presented and it is believed that this has successfully provided an increased understanding of the player's perception of the game.

As for the research questions presented in the beginning of the paper, some more conclusive answers have been presented.

How does players' preference of different games affect how they perceive Pokémon Go as a game?

The results from this study did not provide any evidence that preference of games have any significant impact on how the game was perceived as a game. In this regard, it is considered that players may perceive the game differently from one another based on other grounds than their general preferences in games.

How does players' perception of Pokémon Go as an Exergame affect how they see it as a game?

The participants in this study did not think of Pokémon Go as an Exergame, even though some participants recognized its potential to promote physical activity. The participant who engaged in physical activity the least before installing the game was the one that saw the most benefit to their own physical activity on behalf of the game.

How does the pervasive nature of Pokémon Go inflict on how players perceive it as a game?

The pervasive nature of Pokémon Go seems to greatly influence how the players perceive the game. It is still considered a game, but not a regular game that you turn on or off. Instead the game is perceived as being part of a single, long game session.

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