The University Of Sheffield.

Walk on the Wild Side:
The lived experiences of Pokémon GO players within playful spaces

Benjamin Rhodes

A thesis submitted in partial fulfilment of the requirements for the degree of Doctorate of Education

The University of Sheffield
Faculty of Social Sciences
School of Education

August 2021

Abstract

Location-based, augmented reality games such as Pokémon GO (Niantic 2016-present) integrate real-world locations into the gameplay mechanics, meaning players must travel to real-world locations for play (Leorke 2019). Through the development of a new approach to autoethnography labelled Emergent Multi-Narrative Autoethnography, I seek to explore the playful experiences of Pokémon GO players within these real-world playful spaces, drawing on multiple perspectives of play such as digital play (Marsh et al. 2016), urban play (de Souza e Silva and Hjorth 2009), Japanese seasonal play (Davies 2020) and ambient play (Apperley and Moore 2019). The study is underpinned by affinity space theory (Gee and Hayes 2012), which is used to highlight the ways in which affinity spaces and real-world locations shape and influence the play experiences of Pokémon GO players.

Through thick, detailed, and creative descriptions of gameplay events which immerse the reader into the world of Pokémon GO, this study illuminates the play experiences of Pokémon GO players. I conclude that Pokémon GO players view real-world locations as active, playful, social, and dynamic spaces for play. By highlighting the significance of spaces for play for Pokémon GO players, this study makes an original contribution to understanding and conceptualisation of place attachment (Oleksy and Wnuk 2017), place identity (Vella et al. 2019), and consequently the discursive claims of location-based games (Leorke 2019). The findings of this study contribute to understanding of nurturing affinity spaces by addressing the salient dimensions of real-world spaces and ambient play. This has implications for games designers, urban planners and those involved with curriculum design.

Contents

List of Figures

List of Appendices

Declaration

I, the author, confirm that the Thesis is my own work. I am aware of the University's Guidance on the Use of Unfair Means (www.sheffield.ac.uk/ssid/unfair-means). This work has not been previously presented for an award at this, or any other, university.

All images of Pokémon are taken from [https://www.pokemon.com/us/pokedex/]. These are copyrighted images. I do not own any of the images.

Word count = 62,115

Acknowledgements

I would like to express my gratitude and appreciation for the supervisors of this project, Rebecca Parry and Jessica Bradley. Your continued support, encouragement and enthusiasm ensured the success of this thesis. An acknowledgement must also be made to Julia Davies, a friend and former supervisor, whose guidance and inspiration, along with relentless positive energy, laid the foundations for this research.

I give a special thank you to my mother, Elizabeth. Your help cannot be understated. I am endlessly grateful for your willing ears - your excitement and pleasure to hear me ramble on about my ideas, vent about my challenges, and enthuse about my revelations. Of course, I thank my partner, Michael. I appreciate the respect you have shown for my research, even late at night when I delay putting on a film because I want to share a new paragraph with you.

Thank you.

Chapter 1 – Introduction

1.1 – Pokémon GO

Digital games are diverse and offer a multitude of experiences for the user (Gee 2007, p. 20). Within role-playing action videogames such as *The Legend of Zelda* (Figure 1), the user takes on the role of *Link,* the legendary hero to save the ancient lands of *Hyrule.* Fighting games such as *Super Smash Bros Melee* (Figure 2) offer a multiplayer battling experience which challenges players to become the best fighter. These videogame gameplay experiences occur on a static interface within the home (de Souza e Silva 2006). On the other hand, some games such as the location-based, augmented reality mobile game *Pokémon GO* (Figure 3) encourage users to explore real-world locations (Leorke 2019).

Figure 1 - The Legend of Zelda

Nintendo (2003a)

Figure 2 - Super Smash Bros. Melee

Nintendo (2001)

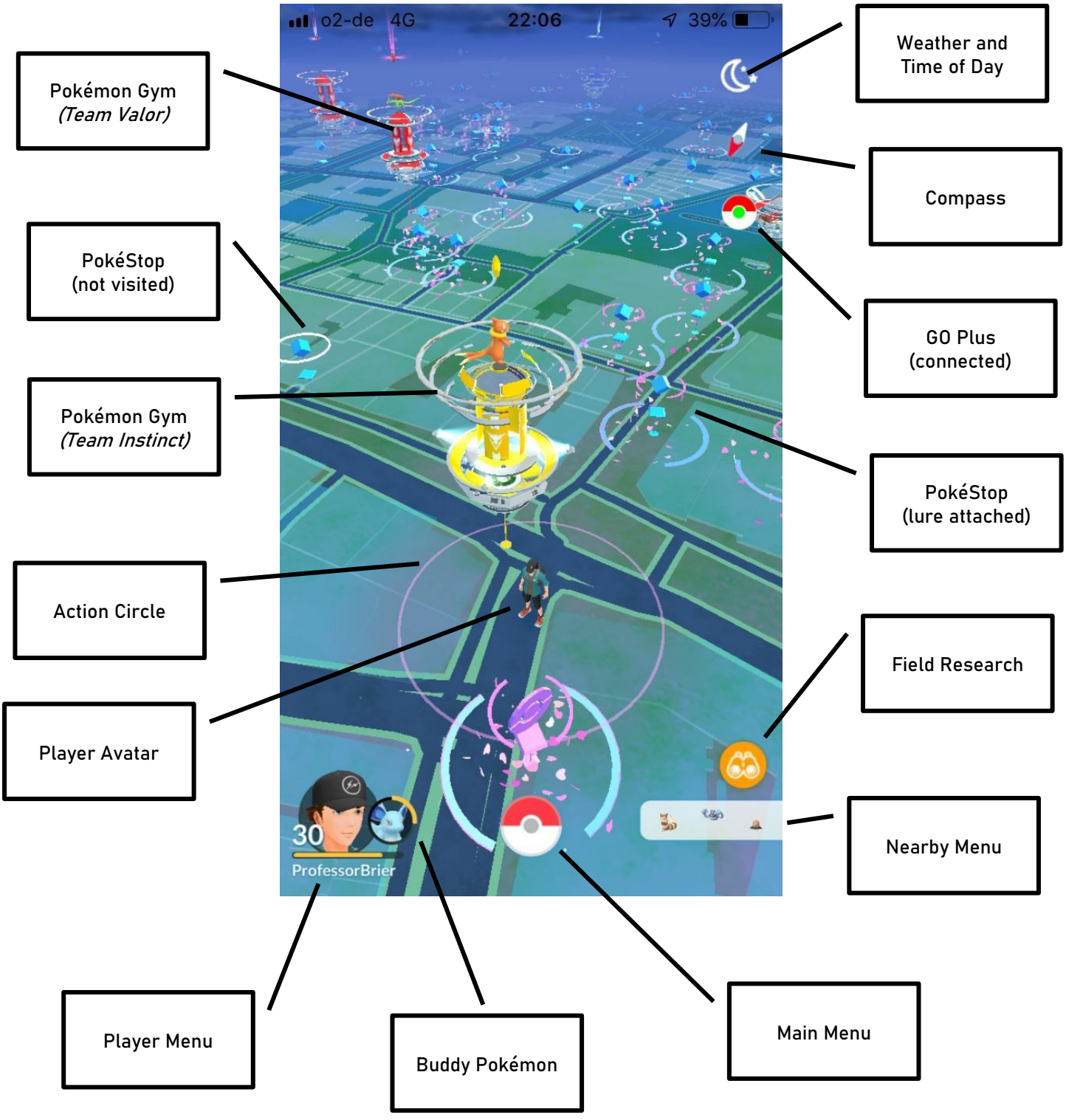
Figure 3 - Pokémon GO

Niantic (2016-present)

Within Pokémon GO, real-world locations are intricately woven into the gameplay mechanics, which Alavesa et al. (2020) describe as taking "advantage of physical urban infrastructure and latest technological advancements in creative ways to compose gameplay" (p. 3286). On the augmented reality map of Pokémon GO, real-world locations manifest as *Wayspots*, a label borrowed from Niantic literature, the augmented reality specialist company responsible for the creation of Pokémon GO. By travelling to Wayspots in the real world and interacting with them within the game, players can access certain gameplay features. As illustrated in Figure 4, there are two forms of Wayspots within Pokémon: *PokéStops* and *Pokémon Gyms*. At PokéStops, players collect key items such as *Pokéballs*, which are required to capture creatures called Pokémon and healing potions to recover Pokémon following battles. Players can also attach a *lure module* to PokéStops, which attract greater numbers of wild Pokémon to the location for the player to catch. Pokémon Gyms operate slightly differently. At these Wayspots, players battle other players for ownership and control of the Pokémon Gym. The Pokémon of the owner of the Gym sits atop a tower, visible for all players to see on their augmented map.

Wayspots are not randomly located on the augmented reality map. PokéStops and Pokémon Gym represent real-world points of interest such as parks, churches, libraries, statues, and plaques. As Pokémon GO gameplay is centred upon Wayspots, real-world locations become associated with a form of play (de Souza e Silva and Hjorth 2009; Innocent and Leorke 2019). This differentiates location-based, augmented reality games from other genres of games and means location-based games challenge understanding of the meaning of games and understanding of city spaces (de Souza e Silva and Sutko 2008).

Figure 4 - Annotated Augmented Reality Map

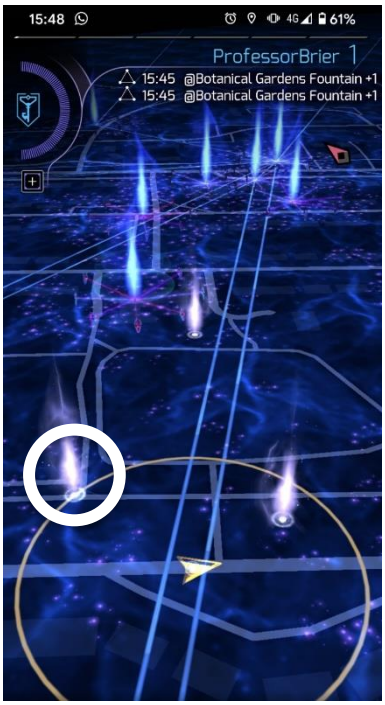


When Pokémon GO first released in the summer of 2016, it was an instant success (Apperley and Moore 2019; Davies 2020). A week after its launch, there were 28.5 million daily unique players in the United States alone (ComScore 2017) and had reached 750 million downloads worldwide within its first year (Minotti 2017). While the game is free to download and play, Pokémon GO reportedly made $1.8 billion in revenue through in-app purchases within its first two years (Nelson 2018). While Pokémon GO is their most commercially successful mobile game, Niantic has a suite of location-based, augmented reality games. As of August 2021, this includes *Ingress* (Niantic 2013-present) and *Harry Potter: Wizards Unite* (Niantic 2019-present). Between Niantic games, the way in which Wayspots are represented on the augmented reality map varies as illustrated in Figure 5. The augmented map of Pokémon GO (including *Ingress* and *Wizards Unite*) does not use a map imported directly from a map service such as Google Maps. The augmented map has been described as "a highly abstract map of which many cartographical features – including street names, numbers and points of interest – are removed" (Lammes and Wilmott 2018, p. 652).

Niantic games currently use the same underlying framework of Wayspots meaning the same real-world locations manifest as Wayspots in each game, though with different appearances and purposes. Within *Ingress,* players travel to *Portals* in order to hack them and claim them for their faction. On the other hand, in *Wizards Unite,* players travel to *Greenhouses* to brew potions, *Inns* to collect spell energy, and *Fortresses* to practice their duelling skills all for the purpose of preventing the Calamity.

Figure 5 – Representation of Locations

Ingress:

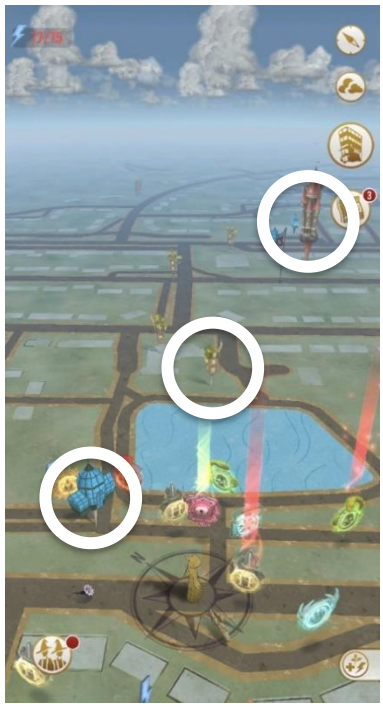


Portals

Pokémon GO:

PokéStops
Pokémon Gyms

Harry Potter:
Wizards Unite:



Greenhouses
Inns
Fortresses

Location-based, augmented reality games such as Pokémon GO integrate real-world locations within the gameplay mechanics, making them distinct from other mobile or digital games (Leorke 2019). Therefore, Pokémon GO offers an insightful opportunity to scrutinise the experiences of players within playful spaces.

1.2 – Research Questions

The aim of this investigative study is to explore the lived experiences of Pokémon GO players within the spaces they occupy for play, led by three research questions:

1. What types of play and playfulness are supported by Pokémon GO?
2. How do Pokémon GO players experience the spaces they engage with for play?
3. How do spaces influence the play experiences of Pokémon GO players?

The first question aims to characterise Pokémon GO play, spotlighting both player interactions *with* spaces for play and *within* spaces for play, henceforth conceptualised as *with(in).* The second question explores how Pokémon GO players perceive the real-world locations they visit for Pokémon GO gameplay. Through this question, I study the relationships and bonds players develop with spaces of play. The third question examines the drivers that influence engagement for playing Pokémon GO to establish the ways in which real-world locations affect gameplay.

1.3 – Contributions

This study of the experiences of Pokémon GO players with(in) playful spaces sits at the cross-section of different academic research communities. I synthesise research relating to space, place, play, affinity spaces and people-place engagement, which enables this study to contribute to the literature relating to location-based games in an original way.

This study contributes to understanding of the types of play and playfulness supported by location-based games such as Pokémon GO. This study illustrates Pokémon GO play is characterised by exploration, investigation, map manipulation, and social collaboration, centred upon real-world locations. The data in this study indicates Pokémon GO players embody serious playfulness, which builds on de Souza e Silva and Hjorth's (2009) conceptualisation of urban play and Apperley and Moore's (2019) conceptualisation of ambient play. Therefore, this study develops an

understanding of play that is able to accommodate the types of play supported by location-based games such as Pokémon GO.

This study exemplifies how Pokémon GO players perceive the real-world locations of play as exciting, active, playful, social locations (Lefebvre 1991). In the context of location-based games, this study shows occupying "ludically charged spaces" (Giddings 2009) builds on current conceptualisations of space and place. Furthermore, I use the characteristics of an affinity space as summarised in Gee and Hayes (2012) to describe and analyse the experiences of players with(in) spaces for play. This approach allows me to establish the ways in which real-world locations contribute or influence the creation of a Pokémon GO affinity space. This, in turn, builds on current understanding and conceptualisation of affinity spaces.

This study offers two contributions through its methodological approach to explore the experiences of Pokémon GO players with(in) spaces for play. Firstly, the specific approach to autoethnography in this study, which I label as Emergent Multi-Narrative Autoethnography offers a new approach to data representation through the inclusion of multi-narrative voices in the form of a fictional character. The deployment of multiple voices offers a different perspective to data representation by being playful with conventions of data representation in traditional theses. Secondly, as an autoethnographic study, I include detailed, thick descriptions of gameplay events organised into episodes, which immerse the reader into the world of Pokémon GO. This offers the reader first-hand insight into the experiences of players at real-world locations, an approach that is argued to be missing by researchers such as Leorke (2019) and Cuttell (2015) especially on the study of games.

1.4 – Organisation

This thesis consists of eight chapters. In Chapter 2, I situate the study within wider literature. I position this study within the literature relating to literacy, space and place, and play. Furthermore, I review previous thinking on affinity spaces (Gee 2004; Gee and Hayes 2012) to illustrate how this study contributes to understanding of affinity space theory. Furthermore, Chapter 2 examines previous literature relating to public engagement with(in) urban spaces.

The methodology of the research is outlined in Chapter 3. This includes a detailed examination of autoethnography as a methodology and the approach to autoethnography adopted in this study, which I label as Emergent Multi-Narrative Autoethnography. I discuss the format and content of the data within the thesis, detailing how other players became involved in the study. The ethical considerations of an autoethnographic study of this nature are explored. Furthermore, I explain my approach to data representation, particularly in relation to multi-narrative voices, which I introduce below (Section 1.5).

Chapters 4-7 contain a collection of autoethnographic accounts, forming the majority of the thesis. Chapter 4 (Episode 1) begins with my experiences of being a veteran Pokémon player in a new Pokémon GO world following the game's initial release. Chapter 5 (Episode 2) considers how online spaces shape offline experiences. Chapter 6 (Episode 3) introduces an international Pokémon GO event and shows how I travelled to Dortmund, Germany for new gameplay experiences. Chapter 7 (Episode 4) narrates how I reached the maximum player level within Pokémon GO, which unlocked a range of new transformative gameplay features enabling the discovery of a walking trail labelled *Walk on the Wild Side,* the namesake of this thesis. I illustrate how this walking route became central to my local gameplay experiences. It is included within the title of this study as it encapsulates my playful gameplay experiences. Following each autoethnographic episode, I discuss the data in relation to the research questions.

In Chapter 8, I summarise the key findings, linking closely to the concept of nurturing affinity spaces (Gee and Hayes 2012). Furthermore, I state my contributions to knowledge, discuss the limitations of the study, implications for practice, and outline avenues for potential future research.

1.5 – Emergent Multi-Narrative Autoethnography

1.5.1 - Introduction

This study adopts a playful autoethnographic approach, which is informed by my own extensive Pokémon GO gameplay experiences as primary data. Considering Bakhtin's (1953) theory of *heteroglossia,* I adopt a novel approach to narrative voices within the data with the purpose of providing an authentic and engaging Pokémon experience for the reader of this thesis (Ellis et al. 2011). I have labelled this approach *Emergent Multi-Narrative Autoethnography.* A key feature of this approach is the use of different voices to present or narrative certain elements of the data. In this study, the majority of the data is narrated by me, as expected in a traditional thesis. However, distinct elements of the data are narrated by a fictional character I created for the purpose of this study named *Professor Brier* (Figure 6).

Figure 6 – Professor Brier

Nintendo (2019)

Emergent Multi-Narrative Autoethnography aims to position the reader within the Pokémon universe to develop a shared connection between me as the author, the reader, and the subject content – Pokémon. This invites the reader into a Pokémon GO affinity space (Gee 2004) to develop a deeper insight into my experiences occupying real-world locations for play.

This methodological approach and the fictional character Professor Brier is discussed in further detail in Chapter 3. However, in Section 1.5.2 below, I discuss my relationship with the Pokémon franchise using the voice of Professor Brier. This serves to both exemplify the Emergent Multi-Narrative Autoethnography approach and my motivations for embarking on this doctoral journey.

1.5.2 – Positionality

Please find my observation notes below.

Professor Brier

It was a Saturday morning, 29 April 2000. A young Pokémon fan, Ben, was spending the bank holiday weekend with his family in their caravan in the seaside town of Skegness. He awoke earlier than normal, scrambled out of bed and shuffled into the living space. Three faces were looking at him – his brother, mother and father. Ben's mother handed him a package about the size and thickness of three VHS tapes.

Ben accepted the package, hands shaking uncontrollably. He *knew* what it was but he couldn't begin to accept the idea until he knew for sure. He took care to accept the gift without snatching. He proceeded to tear off the wrapping paper. Struggling at first, but it finally loosened.

In his hands was a brand new, Nintendo Game Boy Color, purple, portable and all his. (Figure 7). Fallen onto his lap was the game *Pokémon Blue* (Figure 8). Pictured on the cover of the box was *Blastoise,* poised for battle.

Figure 7 – Game Boy Color

Figure 8 - Pokémon Blue

"Happy Birthday!" his family cheered.

The young player's dreams had come true! This was his window into the Pokémon universe. He was finally starting his own Pokémon journey.

By the end of that day, he had created his save file, named the character, chosen a starter Pokémon (*Bulbasaur,* Figure 9) and caught his very first Pokémon.

Figure 9 - Bulbasaur (#001)

Ben shared his experiences with his mother, who nodded patiently and smiled, completely oblivious to the significance of the moment. Perhaps Ben was completely oblivious to the significance. For this was just the beginning of a very long Pokémon journey.

Prior to receiving the Game Boy Color in this moment, I was not a gamer. I did not own any other gaming consoles, such as the Nintendo Entertainment System, Nintendo 64 or Sega Mega Drive, which were popular at the time. My purple Game Boy was purchased for the sole purpose of playing Pokémon. As I moved into my teenage years, my gaming interests grew to include other Nintendo franchises. As I owned Nintendo consoles for Pokémon, they acted as a gateway to other Nintendo games. While my main interest was Pokémon, my love for the Pokémon universe ultimately opened doors to other franchises such as The Legend of Zelda (Figure 1).

Fast forward to the 2010s, I was now a man in my late twenties and a lone Pokémon player. None of my friends or family showed any interest in Pokémon and so my obsession was my own. I was perfectly fine with this. It was my universe to behold. The Pokémon franchise had expanded and now included a wide range of main series games (see Appendix 1). I had begun collecting degrees with the same pleasure and excitement as every Pokémon capture. I earned my undergraduate degree in Linguistics in 2010 and my master's degree in 2012, both from The University of Manchester. Moving back to Sheffield in 2014, I became a college lecturer teaching English to mainly 16-19 year olds. After a few more years of study, I was awarded a Post-Graduate Certificate in Education (PGCE) in 2016 from Sheffield Hallam University.

It is at this point, in the summer of 2016, when this project began.

Pokémon GO was released. When the music in the game played, I was transported back to my eleventh birthday. I was overcome with an overwhelming sense of nostalgia. I could remember slotting my new copy of *Pokémon Blue* into my purple Game Boy Color. I could hear the *click* sound as the game locked in the console. The opening soundtrack and Professor Oak's introduction played in my ears.

The augmented map of Pokémon GO appeared before me … and I was amazed. I was catching Pokémon in real life! I was sat on the sofa waiting for the first Pokémon to appear. What would it be? I desperately hoped for *Bulbasaur.* After a few minutes,

there were no signs of any creatures. While waiting, somewhat anxiously, I explored the options and settings. It was only until ten minutes or so had passed when it dawned on me I was playing the game *completely* wrong. I should have known better. It couldn't be played sat in one place like other Pokémon games. I ventured out onto the back garden. Within two minutes, he appeared!

Figure 10 - Bulbasaur Appears

Figure 11 - Bulbasaur Caught

I couldn't believe my eyes. It was perfect!

The process of capturing Bulbasaur was totally novel to me. Used to just pressing a button and hoping for the best, I found I wasn't very good at catching Pokémon in Pokémon GO. But after a few goes, I got him!

What next? What do I do? I meandered around the back garden waiting for the next Pokémon to appear. After a few minutes, I realised I *still* wasn't playing the game correctly. Phone in hand, I set off down the garden path.

Over the summer of 2016, I reflected on the game. It was apparent it was a gaming experience like none I had ever experienced before. Never had I explored my real life surroundings to find Pokémon! Having novel gaming experiences incited a deep

curiosity within me. What kind of play does Pokémon GO encourage? How do players view the spaces they occupy for play?

The release of Pokémon GO and the curiosity that had enveloped me coincided with the beginning of my doctoral studies. Through this thesis, I had the means to examine my fascination of the game with academic rigour.

This section aimed to highlight my connection with the Pokémon franchise. This has been framed in terms of my educational background and my relationship with games. Notably absent is any personal information about myself – who am I as a person outside of being a Pokémaniac? I see myself as a private extrovert, an oxymoron that not everyone understands. I've had my fair share of hardships come my way through my three decades of life. I was diagnosed with testicular cancer at the young age of 19, clashing horribly with my undergraduate studies. I decided to continue studying through treatment, the first round of which was unsuccessful, resulting in more treatment and further operations. All clear wasn't given for another three years, being back to normal, whatever that meant, by 23. Coming out as gay during all of this wasn't particularly pleasant either but perhaps in a strange way it helped as my loved ones didn't care in any way since they were pleased that I was still with them.

Many researchers use autoethnography to explore difficult times within their lives (such as Custer 2014). I respect those who do this, but this thesis does not use autoethnography for this purpose. This is not because my darker days are too difficult for me to talk about. I'm happy to share stories with those who ask. This thesis however is not related to those experiences. The aim of Emergent Multi-Narrative Autoethnography to explore and even to celebrate the way in which Pokémon has become a positive constant within my life.

Chapter 1 – Summary

Within this introductory chapter, I illustrated how Pokémon GO, an archetypal location-based, augmented reality game, differs from other games in that players are encouraged to travel to real-world locations for gameplay. In order to explore this phenomenon, I introduced the aims of this research and how this study contributes to current understanding of play. Furthermore, I introduced the multi-narrative approach as a part of the autoethnographic methodology and how this offers a different perspective to data representation. Within Chapter 2, I situate the study within the current thinking relating to play, space and place.

Chapter 2 – Literature Review

Chapter 2 – Introduction

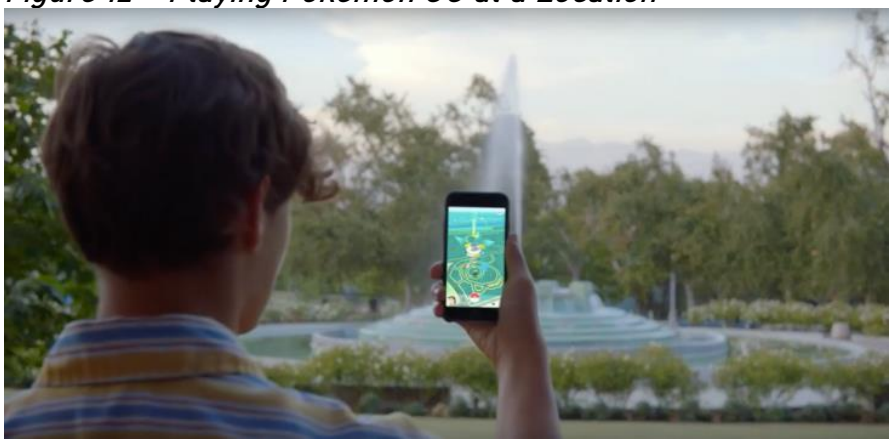
This research explores the playful experiences of Pokémon GO players with(in) real-world playful spaces. Within this literature review chapter, there are five main sections. I summarise the history and rise of location-based games (Section 2.1). Here, I present *Wayfinder Live* (Innocent 2016-present), a location-based game that shares parallels with Pokémon GO. Then, I explore the theoretical concepts of play (Section 2.2) and space and place (Section 2.3). I situate the study within the field of *literacies* and introduce the theoretical concept of *affinity spaces* (Gee 2004), outlining how the theory shapes this study and how this study contributes to understanding of affinity spaces (Section 2.4). I draw on the research within urban geography and location-based games to provide an overview of the current thinking on people-place relationships to understand how the connections individuals develop for locations influences experiences with(in) real-world locations (Section 2.5). While these sections are distinct for organisational purposes within this study, it is important to note that the ideas and theories in relation to play, space, place, and literacies as presented throughout this chapter are interconnected and interrelated.

2.1 – Location-Based, Augmented Reality Games

2.1.1 – Definition

The terms *location-based* and *augmented reality* refer to two separate immersive gameplay mechanics. Following Leorke (2019), I define location-based games as "any game that incorporates the players' physical location and/or actions in an outdoor or public space into the game via a networked interface" (p. 38). Networked interfaces include devices such as smartphones enabled with a Global Positioning System (GPS). There are no specific parameters pertaining to the type of game or number of players. When comparing location-based games with other digital or videogames, Leorke (2019) suggests "the key difference is that location-based game players' actions take place predominantly in a physical environment – usually an outdoor, public space" (p. 18) as shown in Figure 12.

Figure 12 – Playing Pokémon GO at a Location



(Lomas 2016)

On the other hand, augmented reality (AR) is a mechanic that some location-based games, including Pokémon GO, utilise but it is not a requisite. An AR experience is the convergence of the real-world with computer-generated information. Pokémon GO enables players to see Pokémon superimposed onto their real-world surroundings through their mobile screens (Figure 13 and 14). According to de Souza e Silva (2017), this "promotes a stronger connection with physical space and highlights the fact that urban spaces are the playing field" (p. 21). AR is also said to introduce digital elements to the real world in order "to move the intertwinement between digital elements and users' everyday lives to a completely different level" (Liberati 2018, p. 213).

Figure 13 - Standard Mode

Figure 14 - AR Mode

Within academic literature, the labels for location-based and/or augmented reality games vary. McGonigal (2006) prefers the label *ubiquitous games* as this connotes a "stable environment … [and] says nothing of boundaries" (p. 48). This contrasts with the label *pervasive games* used by Montola et al. (2009) and Stenros et al. (2012). Stenros et al. (2012) define pervasive games as "a broad category of games in which what is actually in the game and what is outside it is somewhat ambiguous" (p. 340). They expand upon the notion of ambiguity by clarifying "the play area or the time frame may be ambiguously defined, or players may drift in and out of the game in ambiguous ways" (Stenros et al. 2012, p. 340). Furthermore, Farman (2014) adopts the label *locative games,* which places emphasis on the location-aware technology such games use. De Souza e Silva (2006) refers to location-aware games as *hybrid-reality games* as they "allow players to use city space as the gameboard" (p. 266). The concept of hybrid-reality games is expanded upon within de Souza e Silva and Hjorth (2009), who classify location-based games into three categories: urban games, location-based mobile games and hybrid reality games. However, this classification is less useful in the context of Pokémon GO, which has attributes of all three game types. Lammes and Wilmott (2018) describe location-based games such as Pokémon GO as "cartographical games", which spotlights the map making capabilities of the digital augmented map. Using the broad term "casual games", Juul (2009) describes a genre of games that are easy to learn and often adopted by large numbers of players, which include location-based games. In this study, I maintain the use of the broad label *location-based* as it is a widespread term that focuses on the gameplay mechanic that differentiates this genre of games from others.

2.1.2 – Brief History

The rise of location-based games is linked closely to the availability of GPS technology. Previously confined to the military, the US government enabled public access to GPS signal data in May 2000 (Leorke 2019, p. 19). As the mobile phone industry progressed technologically during the beginning of the twenty-first century, mobile phone technology became more accessible to the general public. A

particularly important moment in the history of location-based games is the release of the Apple iPhone 3G in 2008, which laid the groundwork for some of the spatial navigation, annotation, and tracing practices to enter the mainstream (de Souza e Silva and Frith 2010, p. 486). On mobile devices, games could now be downloaded as an application or app. Leorke (2019) explains "the rollout of app distribution services led to an explosion of mobile gaming development that upended the way games are distributed and played" (p. 88). This meant creators could publish their games without the need to negotiate with any existing, large corporations and owners of mobile devices could consume free games without needing to invest in any other gaming hardware. Notable mobile games that surged in popularity include *Angry Birds* (Figure 15) and *Candy Crush* (Figure 16).

Figure 15 - Angry Birds

Rovio Entertainment (2009-present)

Figure 16 - Candy Crush

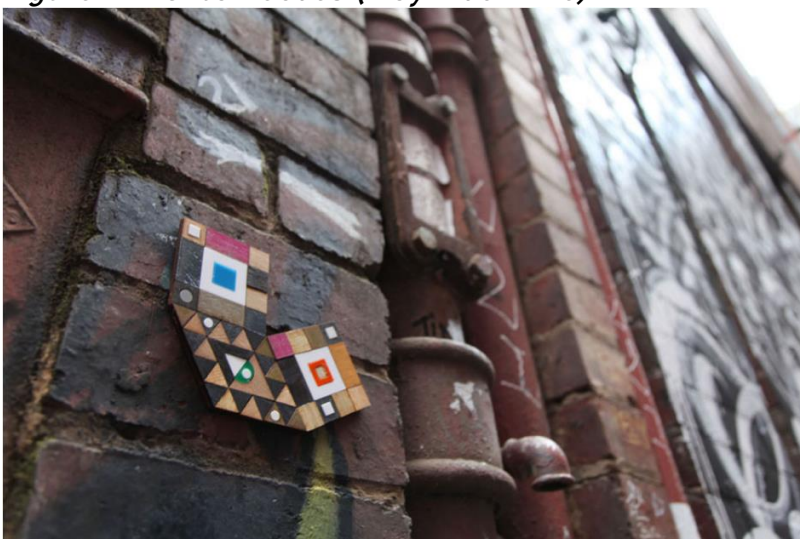
King (2012-present)

Smartphones provided the platform upon which location-based games could expand as a mainstream gaming genre. One particular location-based game that attracted media attention and received critical acclaim was *Shadow Cities* (Grey Area 2010), a fantasy online game where players would use magic to fight for control over territory. Some location-based games such as *Wayfinder Live* (Innocent 2016-present) are situated within specific cities, which I elaborate on below.

2.1.3 – Wayfinder Live

In this section, I draw on the research of Dale Leorke and Troy Innocent to understand the experiences of players of a location-based game. Leorke is a leading researcher of location-based games who advocates for ethnographic research methodologies and Innocent is a games designer, who created Wayfinder Live and other city-based location-based games. The gameplay of Wayfinder Live entails giving players the task of locating 16 distinct codes within a city centre in order to activate their version of *Ludea,* which is a world created by play. Scattered throughout Melbourne in the 2017 iteration of the game were plywood and acrylic codes that feature the geometric shape associated with the game (Figure 17)

Figure 17 - Urban Codes (Wayfinder Live)



Players scan the codes using their smartphone, which takes control of the code, in a similar way to the control of Pokémon Gyms in Pokémon GO. Leorke (2019) describes the various hidden positions of the codes in Melbourne from "bollards to the middle of the street … [to] a casino" (p. 216). Recounting his experiences playing Wayfinder Live in 2017, Leorke (2019) tells the story of how, while on the hunt for codes, he strolled for an hour examining his surroundings. On the same hunt, he describes how a code was hidden cleverly on a concrete bollard that had been reclaimed and decorated by the community so it was unassuming to any passers-by, illustrating how play intricately intertwined with urban spaces.

Innocent and Leorke (2019) suggest location-based games such as Pokémon GO and Wayfinder Live enable encoding and decoding of the world. Encoding involves "taking street maps and nearby locations and reskinning them with the aesthetic and language of the game world" (p.24) such as the imposition of weather and a change of colour palette (see Figures 13 and 14). Therefore, while the player is situated in the location of the code, the interaction is centred upon encoding within the virtual world. On the other hand, decoding involves interacting with the real-world location. In Pokémon GO, this entails spinning the Photo Discs of Wayspots to which players must be adjacent. The process of encoding and decoding contribute to the play experiences of players of location-based games. Focusing on the play of decoding, Innocent and Leorke (2019) explain:

> Decoding places an emphasis on the lived experience of the city and consequently opens up the potential for that to be transformed by play. The ambiguity around what is part of the game and what is part of the 'real' world creates a situation in which that world becomes fluid and mutable, open-ended, and changeable. Cities are not fixed, although the immediate experience of concrete and steel suggests this, but emergent structures generated by multiple linked and ongoing processes (Amin and Thrift 2002). Attention may be drawn to this – by decoding infrastructure, for example – through play that redefines elements of the city giving them new meaning that evolves from their existing role in the world.
>
> Innocent and Dale (2019, p. 25)

This suggests gameplay based in urban environments alters the way in which players view spaces for play (see Section 2.3). In order to create this experience, Innocent and Dale (2019) outline five play principles incorporated within the game as summarised in Figure 18.

Figure 18 - Play Design Principles (Wayfinder Live)

Play Design Principle	
1. Put your phone away!	When searching for codes, players are encouraged to put their phones away. When they are within 100m of a code, their phone will alert the player, prompting the player a code is nearby. Clues to codes are also placed in real-world locations and using a phone is only necessary to scan the code, not necessarily locate them.
2. Wayfinding = finding ways of being	While wayfinding is traditionally functional (such as finding the fastest route through a space), playful wayfinding encourages players to slow down and engage with their environment. This entails becoming more observant and sharpening focus so textures, materials and objects come into focus.
3. Materiality + virtuality	Codes scattered throughout a city are designed to incorporate elements of street art, meaning they have value within the game (decoding) and for non-players who may be curious about the purpose of the code, which enables them to discover the game. Scanning the code activates an animation that reveals key words associated with the location.
4. The ready-made placemaking	Locations with codes are spaces for activity for players. These spaces may be new places or places previously known but with renewed intensity through play. Players' behaviours are noticed by other players, which shifts the meaning of the space for non-players.
5. An alternate city within the city	The extended game includes three clans, which have different philosophies, which contribute to the competition of the game. Upon choosing a clan and locating all codes, players become part of the expanded game, which enables players to interact with codes without visiting them again, offering an alternative gameplay experience.

Through the play design principles and interviews of players, Innocent and Leorke (2019) present Wayfinder Live as a game with the ability to increase residents' appreciation for the city, encourage players to pay more attention to the built environment, and facilitate the discovery of new places even when residents reported already knowing the city well. However, some players felt a sense of embarrassment searching for codes in the public domain and felt uncomfortable playing in proximity with groups of homeless people. Innocent and Leorke (2019) highlight the importance of the materiality of Wayfinder Live gameplay, the urban codes with which players developed an affinity, which Pokémon GO lacks.

There are other initiatives that local businesses and councils have implemented that are similar to Wayfinder Live in that they direct individuals to certain locations. There are many examples so for the purpose of this study, I draw on two local initiatives. In July 2021, *The Bears of Sheffield* project initiated by The Children's Hospital Charity in Sheffield, United Kingdom is a public arts exhibition, which entails the positioning of 160 bear sculptures across the city. It is intended for the public to visit each bear, scan the QR code to register their visit and donate to charity. On 14 July 2021, the official website celebrated the *Nano Bear* as being the most visited bear (The Bears of Sheffield 2021). In addition to The Bears of Sheffield initiative, Sheffield City Council has also introduced *Beat the Street,* which is a real-life walking, running and cycling game (see Beat the Street 2021). The game involves scoring points and winning prizes by travelling from point to point and swiping a contactless sensor attached to hundreds of lampposts across the city. As of 14 July 2021, there were nearly 60,000 registered players and over 370,000 miles covered within Sheffield.

While Pokémon GO is not a city-funded game, this study contributes to discussion of city-wide games as it presents players' experiences playing a location-based game within urban settings.

2.2 – Play

2.2.1 – Perspectives of Play

Pokémon GO, the game which is the focus of this study, is a location-based, augmented reality game (see Section 1.1 and 2.1). Here, I expand on what it means to be a game or *to game*. Gee and Hayes (2012) use the term *metagame* to refer to "the social practices that happen inside and/or outside the game" and the term *game* to refer to the game itself. In this sense, the term *metagame* refers to "aspects of gameplay that derive not from the rules of the game, but from interplay with the surrounding context" (Salen and Zimmerman 2003, p. 481). In the context of Pokémon GO, this means a player visiting a Wayspot for a Raid battle is *playing the game* as this is the intention of the game and a player writing a tutorial to publish online is *playing the metagame.* This distinction is interesting for this study which

spotlights the types of play and playfulness supported by Pokémon GO – does play derive from the *game* or *metagame*? Following Gee and Hayes (2012), I explore the playfulness of Pokémon GO in both contexts, which Gee and Hayes (2012) label as *Game*.

This approach allows me to encapsulate the varied nature of play. Sutton-Smith (2001) defines play as activities such as "exploration, practice, manipulation, mastery, experimentation, reading and listening, making music, painting, dancing, and roughhousing" (p. 134). This illustrates the ubiquity of play and speaks to what Sutton-Smith (2001) labels as the "ambiguity of play". This is important in the context of location-based games, which have previously been described as ubiquitous (McGonigal 2006) and pervasive (Stenros et al. 2012). By the nature of location-based gameplay mechanics, play is intertwined with the ordinary and non-play. Understanding play as ubiquitous allows scope for greater analysis of the playful experiences of Pokémon GO players (de Souza e Silva and Sutko 2008). However, I note there are earlier conceptualisations of play, such as the description of play by Huizinga (1955), that separate play from ordinary life. Huizinga (1955) defines play as "a free activity standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly" (p. 13). This conceptualisation positions play as a distinct activity that simultaneously separates players from other activities and yet absorbs them within play. Tying into the idea of play being ubiquitous, Schechner (1988) explains:

> [I]t's wrong to think of play as the interruption of ordinary life. Consider instead playing as the underlying, always there, continuum of experience…Ordinary life is netted out of playing but play continually squeezes through even the smallest holes…
>
> Schechner (1988, p. 16)

What exactly is meant by *play* and *playfulness* has been a subject of debate within the academic community (Barnett and Owens 2015; Eberle 2014; Mardell et al. 2016). I adopt the term *playfulness* to encapsulate the playful behaviours or playful attitudes of Pokémon GO players (Sicart 2014). Having a playful mental state can be beneficial to learning (Walsh 2020) as this includes a willingness to "try something new; to attempt something difficult where success is not guaranteed" and can "embrace whimsy, the spirit of the carnival, creativity, humour, surprise and imagination" (Whitton and Moseley 2019, p. 14). Walsh (2020) describes playful learning as enabling the unexpected to happen as learners explore new information and scenarios. The link between play and playful learning highlights the importance of adult play as playful learning approaches in adults "have the potential to improve the higher education practices of students and tutors" (Whitton and Langan 2018). Therefore, this study contributes to the argument that play - and therefore playful learning - are important in the design of curriculum (Kim and Johnson 2021) and intellectual, social, emotional and physical development (Mardell et al. 2016).

To understand playful learning, I draw on Mardell et al. (2016) who developed a tool named *Indicators of Play*, which aims to clarify what playful learning entails in order to support educators. The model comprises of three overlapping categories: *delight, wonder* and *choice* (Figure 19)

Figure 19 - Playful Learning

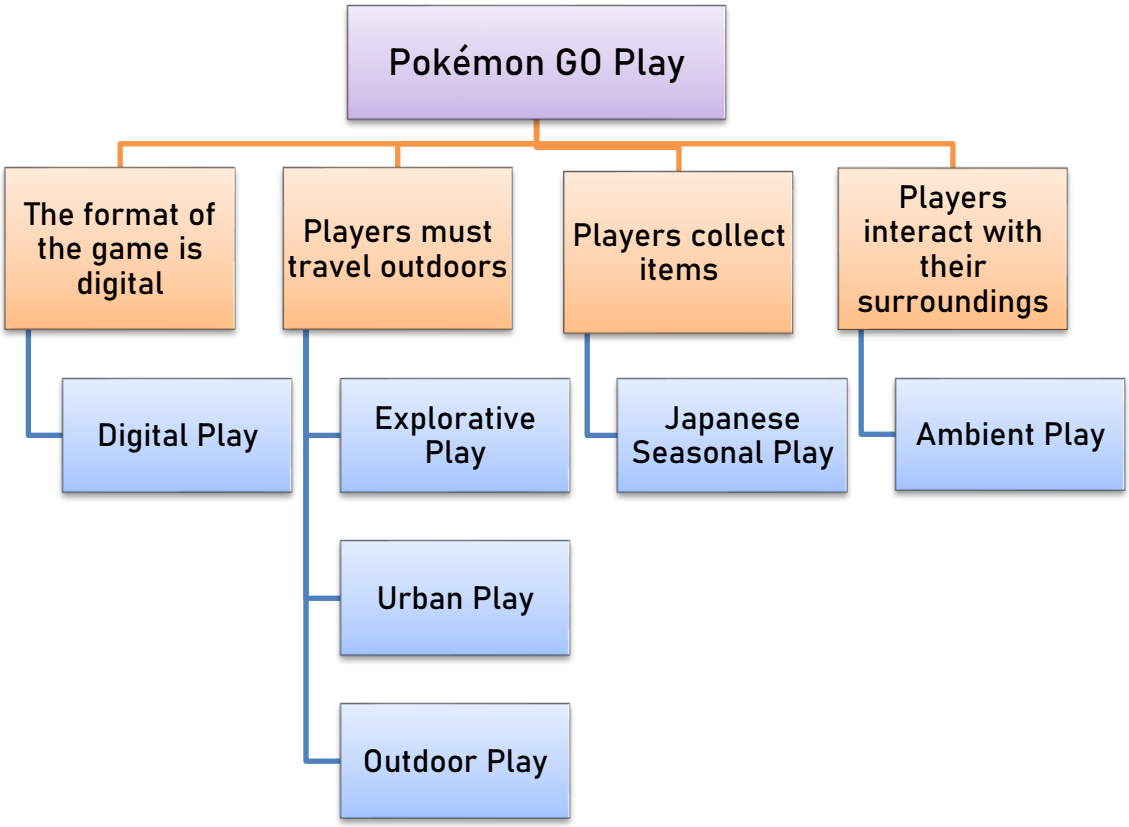
	Feels like…	Looks like…
Choice	• Empowerment • Autonomy • Ownership • Intrinsic Motivation	• Making and changing the rules • Having and sharing ideas • Choosing how to play • Moving around • Setting goals • Spontaneity
Wonder	• Enjoyment • Excitement • Satisfaction • Inspiration • Pride • Belonging	• Improvising • Inventing • Learning from mistakes • Exploring • Taking risks
Delight	• Curiosity • Novelty • Surprise • Engagement • Fascination • Challenge	• Smiling • Competing • Anticipating • Being altruistic • Celebrating • Joking and being silly

adapted from Mardell et al. (2016, p. 7)

The indicators of play (Figure 19) are used in this study to understand the play experiences of Pokémon GO. Mardell et al., (2016) acknowledge the indicators are highly subjective in nature and should not be seen as binary constructs. For example, some indicators such as *excitement* could be listed under *delight* or *wonder*. As they are context dependent, it is important to "reflect on and talk with learners about their experiences" (Mardell et al. 2016) though in the context of this autoethnographic study, this entails self-reflection (see Section 3.1).

Furthermore, there are different perspectives of play that I focus upon in this study (Figure 20). Deriving from game features or gameplay mechanics of location-based games, I draw on these interconnected perspectives to understand the types of play that Pokémon GO supports.

Figure 20 - Perspectives of Play



As players must go outside to play, research has previously considered the impact of the urban environment as a gameboard on play (de Souza e Silva and Hjorth 2009). Pokémon GO is a digital game so I draw on the literature relating to play and digital games (Marsh et al. 2016). I consider the characteristics of digital play and how the research on *Minecraft* (Mojang 2011-present) benefits this study. As players of Pokémon GO interact with their surroundings in the form of Wayspots for play, I draw on research relating to ambient play to understand how gestures and the haptic effect of Pokémon GO influences play (Apperley and Moore 2019) and examine Japanese seasonal play (Davies 2020). It is important to note that this study spotlights *adult* play, though I draw on literature on play from multiple perspectives, as presented in this chapter.

2.2.2 – Digital Play

As a result of the rise in digital technology and games, Marsh et al. (2016) demonstrate that the nature of play is changing. Through critically evaluating previous classifications of play (Bird and Edwards 2015; Broadhead 2003; Caillois 2001; Hughes 2002; Hutt 1979; Opie and Opie 1959, 1969, 1985, 1997), Marsh et al. (2016) aim to classify play which takes into account the digital. They conclude the classification proposed by Hughes (2002) (see Appendix 2) accurately applies to the digital context. However, not all elements of play were observed in the digital setting such as *recapitulative play* which is defined as play in which children explore history and their ancestors. Marsh et al. (2016) explain this element of play is more difficult to discern as it links closely with other types of play and requires nature, though they suggest it could be argued that adapting nature in a digital landscape could be recapitulative play. I draw attention to this element of play as location-based games direct players into the real-world locations, which might offer insight into this element of play. Furthermore, Marsh et al. (2016) argue *transgressive play* should be included with the classification to accommodate the play that occurs when "children contest, resist and/or transgress expected norms, rules and perceived restrictions in both digital and non-digital contexts" (p. 250). This new classification derives from observing children playing with features of games that are not part of the original design, sharing similarities to the metagame (Gee and Hayes 2012). For example, Marsh et al. (2016) describe a child playing a spelling a game who:

> Rather than adhering to the game's rules by placing the alphabet blocks on the line underneath the depiction of a word he was supposed to spell, he raised the block up to the top of the screen and made it disappear
>
> Marsh et al. (2016, p. 250)

There are many studies that have aimed to understand the play supported by different digital games. In this study, I draw parallels with the research on *Minecraft*. In this game, players construct virtual worlds using coloured blocks, which can be occupied collaboratively in multiplayer mode. The virtual worlds, and

the play that this supports, has garnered academic interest. Most research focuses on the videogame version of the game. For example, Bailey (2017) investigates Minecraft in the context of an after school club. This study illustrates that play was creative and imaginative, "entangled across multiple spaces, moving effortlessly between the on and off-screen dimensions" (Bailey 2017, p. 369). Research on the mobile version of the game is said to be underrepresented, despite the prevalence of Minecraft play on mobile devices (Mavoa et al. 2017) and the importance of haptic play, which is more fully realised in mobile play (Schneier and Taylor 2018). Considering the mobile version of the game, the relationship between mobile play and the nature of spaces for play is scrutinised by Balmford and Davies (2020) who suggest particular scenarios of Minecraft play renegotiate household spaces. The scenarios include the gameplay itself and the haptic effect of gameplay (see Section 2.2.7). Balmford and Davies (2020) claim that the space of Minecraft can become an extension of the family home and reshape the perceptions of play and family dynamics, highlighting the importance of research on mobile, digital play.

As the gameplay of Pokémon GO occurs predominantly outdoors, I now focus on exploratory play in the context of digital games, defined by Marsh et al. (2016) as "play in a digital context in which children explore objects, spaces, etc. through the senses in order to find out information, or explore possibilities" (p.247).

2.2.3 – Explorative Play

Previous research indicates Pokémon GO gameplay impacts the ways in which players explore their urban environment. Graells-Garrido et al. (2018) seek to quantify the effect of Pokémon GO within Santiago, Chile in relation to its floating population patterns, which "denotes the number of people present in a given area during a specific period of time, but who do not necessarily reside there" (p. 2). Using spatial distribution data of mobile phone cell towers, they compared the distribution of players pre-release and post-release of Pokémon GO. Graells-Garrido et al. (2018) illustrate the week after the release of Pokémon GO, connectivity to the Internet increased by over 10%. On the mobility of players, they explain:

> On the one hand, people take advantage of commuting times and breaks during the day to play the game. Thus, players tend to be near their work/study places, which are mostly downtown. On the other hand, on weekends at night the effect is more diversified, implying that people tend to play the game in places near their homes.
>
> Graells-Garrido et al. (2018, p. 12)

This suggests that Pokémon GO players only play in their immediate surroundings, near their work or home. However, it could be argued that weekends represent a diversified mobility pattern as players have a longer time period to travel to different locations for gameplay, though this is not fully explored. Despite this, their findings indicate Pokémon GO increased the number of pedestrians on the city streets, occupying spaces they might not occupy ordinarily.

There have been some previous attempts to ascertain the motivational drive of real-world locations for players of location-based games. Hamari et al. (2019) and Malik et al. (2019) consider the relationship between motivation and locations. Hamari et al. (2019) reported the majority of Pokémon GO players are motivated to explore new places, illustrating that "the very manner of playing location-based games as activities mapped onto physical locales holds strong motivational power"

(Hamari et al. 2019, p. 812). Furthermore, they acknowledge the potential of location-based games in relation to stealth learning, which they describe as the accidental or inadvertent learning about real-world locations whilst playing Pokémon GO. Stealth learning and the role of real-world locations is largely unstudied in relation to location-based games such as Pokémon GO. On the other hand, Malik et al. (2019) consider how gender and age influence motivation for playing location-based games. According to their survey results, female players are more motivated than male players to explore the built environment. They claim:

> The likelihood of being attracted by the physical exploration features of a game can be a response to the fact that women are generally more cautious and concerned about their health, and that leads them to use various technologies for seeking health-related information and support more actively than men.
>
> Malik et al. (2019, p. 9)

This assumption is not unpacked further and is therefore problematic. Malik et al. (2019) attribute the discovery of new locations to the health benefits of walking to the places rather than anything specific about the built environment. Regarding the age groups, they find that while scores increased slightly with age, there is no statistical significance within the results. However, they do note that the mean scores across all age groups for physical exploration was the highest among all the gratifications. Therefore, while age is not a significant factor, physical exploration itself is important.

The notion of Wayspots being a gateway to new real-world locations is evident during the summer of 2016 when the game was first released. Kohn (2016) evaluated how Pokémon GO changed the usage of libraries in the USA. Libraries became Wayspots and therefore players came close to the libraries for Pokémon GO play. Libraries and businesses responded to this in various ways. Kohn (2016) describes how one library set up a welcome table at the entrance of the library to greet players. Another library such as Barrington Area Library introduced what

they called a Pokéwalk where “the goal was to take patrons on a walk to various PokéStops while they interacted with each other and explored the outdoors” (Kohn 2016, p. 8). This correlates with a Pokéwalk as described within Vella et al. (2019). Furthermore, following the release of Pokémon GO, Carol Stream Public Library reported that “Facebook reach and engagement are up 100 percent, adult graphic novel circulations up 5 percent, and video games up 26 percent” (Kohn 2016, p. 11) which they attribute to their Pokémon GO promotions.

In addition, Costigan et al. (2017) describe how they engaged with the Pokémon GO community. This new engagement raised the library’s visibility within the community, which resulted in staff of the library being invited to give presentations at special panels and provided the library with the opportunity to collaborate with other sectors of the community including the university, which then meant the library could provide more training services. They report, “the turnout was fantastic, training sign-ups increased, and we began getting more attention from upper management” (Costigan et al. 2017, p. 28). These examples indicate how Pokémon GO enabled the library to extend their services further into the community, which has benefited the community as a whole and is crucial for the library’s survival.

The exploration of new locations and engaging with services in different ways, which become entangled with Pokémon GO gameplay, tie closely to the concept of urban play.

2.2.4 – Urban Play

Section 2.2.1 illustrated the difficulty defining play. Hendricks (2020) notes how play is "difficult to comprehend and investigate" (p.117). The same can be said for *urban* (Uchida and Nelson 2010). As Innocent and Leorke (2020) note, this means the concept of *urban play* is especially difficult to define. Stevens (2012) describes urban play not as a set of skills or activities, but rather as a "way of being" (Sicart 2016, p. 28), linking to the notion of playful behaviours. Stevens (2007) draws on Caillois (2001) as a means to categorise urban play in the form of: chance, competition, mimicry, imagination, fantasy, and role play. The majority of these are applicable for this study.

On the other hand, de Souza e Silva and Hjorth (2009) developed a conceptualisation of urban play as a means to understand the playful activities encouraged by location-based games based on Baudelaire's *flâneur,* (and its modern day equivalent *phoneur* - Luke 2006)*,* Debord's *dérive,* and *parkour*. Using these concepts, de Souza e Silva and Hjorth (2009) illustrate how location-based games have "roots in these earlier forms of play activity" (p. 603). The nineteenth century figure of the *flâneur* is described as a "ludic character … [who] … reterritorializes the city through a series of playful actions" (de Souza e Silva and Hjorth 2009, p. 607). They link this concept to the *phoneur* (Luke 2006), a modern-day equivalent who uses a mobile phone to traverse a city or a "mobile phone user strolling the cityscape" (Luke 2006, p. 187). De Souza e Silva and Hjorth (2009) also use the concept of *dérive,* which is described as the moment:

> One or more persons during a certain time drop their usual motives for movement and action, their relations, their work and leisure activities, and let themselves be drawn to the attractions of the terrain and the encounters they find there
>
> Debord (2006, p. 62)

De Souza e Silva and Hjorth (2009) contend that the *dérive* encourages players of location-based games to view their environment in a new light and explore new

parts of their environment unexpectedly. Furthermore, de Souza e Silva and Hjorth (2009) also draw upon modern urban play practices such as *parkour* (Figure 21) as an example of how individuals have used their urban environment for enjoyment in unexpected ways.

Figure 21 - Parkour

De Souza e Silva and Hjorth (2009) describe Pokémon GO players using and moving within city spaces akin to the *flâneur, phoneur, dérive,* and *parkour*, suggesting urban landscapes have been associated with a form of play prior to the advent of location-based games. Based on this, de Souza e Silva and Hjorth (2009) conceive spaces not only as social spaces (Lefebvre 1991), but also as playful spaces. This is because "play is an intrinsic social movement emergent by the relationships between people" (de Souza e Silva and Hjorth 2009, p. 604) (see Section 2.3 on space). Playful spaces are a product of the people who inhabit these spaces, such as those engaging in parkour or Pokémon GO players who visit a real-world location to catch a rare Pokémon. This conceptualisation is helpful in the context of this study as real-world locations become associated with play when players visit the monument for item collection. Furthermore, it is important to note some

Wayspots, such as parks and sports fields, are already associated with some form of play. However, these real-world locations are not necessarily associated with location-based, augmented reality mobile play. Therefore, this study does not assume real-world locations are not already associated with a form of play. Rather, this study aims to explore players' experiences with(in) spaces for play to establish how Pokémon GO contributes to the playful nature of urban spaces.

The concept of urban play (Stevens 2007, 2012, 2017) and urban playful spaces (de Souza e Silva and Hjorth 2009) help to understand the playful experiences of players of location-based games such as Wayfinder Live (see Section 2.1.3). Innocent and Leorke (2019) observe players territorialising the city (Melbourne) via the searching and scanning of urban codes *(flâneur/phoneur)* and players taking different walking routes as usual *(dérive).* Furthermore, the locations of the codes in non-descript locations such as bollards show that urban environment can be used for play in different ways *(parkour).* Innocent and Leorke (2020) also comment on *hardcore urban play*, which is characterised by completionist playful behaviours and competition. Motivation to play the game manifests as players leaving their homes late at night to play or returning to multiple locations for play, ultimately taking any measures needed to complete the game (Innocent and Leorke 2020).

2.2.5 – Outdoor Play

As noted previously, de Souza e Silva and Hjorth (2009) theorise that the play of location-based games is characterised by historical and other forms of play. However, it is important to note, there is a large body of research focused on outdoor play in early childhood studies (Bilton and Waters 2016; Canning 2013; Davies and Hamilton 2018; Dhanapal and Lim 2013; Elliot 2015; Fjørtoft 2004; Gallagher et al. 2018; Mackinder 2017; Waller 2007, 2014). The growing body of research into the role of the outdoor environment has focused on the "practical aspects of working outside, of persuading staff as to its benefits and the educative purposes of this space" (Bilton and Waters 2016, p. 3). The increase in interest has been attributed to new policy in England (Elliott 2015), such as the *Learning Outside*

the Classroom Manifesto (DfES 2006), which states "every young person should experience the world beyond the classroom as an essential part of learning and personal development, whatever their age, ability or circumstances." A notable study by Fjørtoft (2004) illustrates the role of nature within play and learning. Referencing various landscapes such as forests, beaches, riverbanks and mountains, Fjørtoft (2004) argues these represent a "dynamic environment and a stimulating and challenging playground for children" (p. 36). Through observing young children within nature, play has been categorised as either: *functional play* (running, jumping or throwing), *construction play* (building shelters or dens), or *symbol play* (playing house or pirates).

Therefore, while de Souza e Silva and Hjorth's (2009) conceptualisation of urban play is helpful for this study, this understanding of play does not fully consider the growing attempts to blend outdoor environments within the curriculum in early years settings or the research that seeks to understand children's play in nature, nor the location-based activities rooted in nature with Japanese culture as discussed below.

2.2.6 – Japanese Seasonal Play

Section 1.1 introduced Niantic, the AR specialist company based in the USA responsible for the creation of Pokémon GO. The Pokémon franchise, however, was conceived by Japanese games designer Satoshi Tajiri, a young Japanese game developer who was motivated by his love for nature in an increasingly urbanising Japan. The vast Pokémon franchise, the licencing of which belongs to the Japanese media company Nintendo, includes various console games (see Appendix 1), trading cards, films and an animated series (Apperley and Moore 2019). This is important as Davies (2020) illustrates that the gameplay of Pokémon GO has roots in earlier forms of Japanese play (Figure 22 and 23), contrasting with the conceptualisation of urban play as outlined by de Souza e Silva and Hjorth (2009) in Section 2.2.4.

Figure 22 - Comparison of Play

Pokémon GO Play	Japanese Asobi
Visiting Wayspots	Collecting stamps at train stations and temples "goshuin" Shinto pilgrimages
Design of Pokémon	Japanese creatures and mythology
Catching Pokémon	Insect collecting "mushi"
Pokéball device	Vending machine capsules "gashapon"
Cataloguing Pokémon (Pokédex)	Displaying insects
Battling Pokémon	Insect fights

Figure 23 - Stamp Collecting

Davies (2020, p. 312, Figure 1)

Davies (2020) spotlights the Japanese social practices and non-digital technologies that have informed the franchise such as "maps, indexes, ink stamps, administrative procedures of religious pilgrimage and insect collecting, infrastructures of tourism, and networks of railways and trains" (p. 306). These practices align with *asobi,* a Japanese term that commonly translates as *play,* though Davies (2020) explains asobi denotes more than play, mirroring the difficulty in English defining the term. Drawing from Cox (2002), Davies (2020) describes asobi is a seasonal activity that relies on order, discipline and organisation, which contrasts with traditional Western forms of play that are understood as

spontaneous (see Section 2.2.1). By examining the locative practices and playful collection activities within asobi, Davies (2020) suggests "Pokémon GO players represent archetypal albeit unconscious participants of traditional culture, spiritual activity, and Japanese modes of play" (p. 333).

In addition, this study draws on Apperley and Moore (2019) and Hjorth and Richardson (2014) who consider how the relationship between touch, gesture and spatial practice in Pokémon GO creates new possibilities for ambient play.

2.2.7 – Ambient and Haptic Play

Discussed previously in relation to Minecraft (Schneier and Taylor 2018), ambient play has an important role in Pokémon GO. Hjorth and Richardson (2014) describe ambient play as the "tacit, unofficial and incidental forms of creativity, play, and communication" (p. 62) which take place at the locations of play. This takes the form of the touch of the mobile device and the act of swiping the screen to catch a Pokémon, which creates a visible haptic effect that becomes intertwined with the play itself. Apperley and Moore (2019) illustrate the Pokémon franchise has a history of incorporating peripheral devices into gameplay such as the *Pokéwalker* (Figure 24) that enables players to travel with their Pokémon caught in the main series games (Appendix 1). The built in pedometer "influenced which items and wild Pokémon would appear in game" (Apperley and Moore 2019, p.8), which converted walking to an integral gameplay mechanic. In the context of Pokémon GO specifically, the *Pokémon GO Plus* accessory (Figure 25) allows players to catch Pokémon and interact with Wayspots without the need of the mobile device.

Figure 24 - Pokéwalker

Figure 25 -Pokémon GO Plus

Hjorth and Richardson (2014) suggest by extending play to the body and the location of play, the haptic effect makes ambient play "an integral part of a game's texture, affect, and embodiment" (p. 60). This understanding of play offers an interesting lens to examine players' presence in public spaces. This is argued by Apperley and Moore (2019) who make the following claim:

> While individual users may be only co-present through their physical proximity, or doubly co-present through sharing the augmented vision of the Pokémon GO app, the haptic effect of the physical enactment of the game creates a space of shared play that is extended beyond physical proximity by photography and social media.
>
> Apperley and Moore (2019, p. 7)

Players share the experience of touch and gesture in real-world locations, which establishes an "affective resonance" (Tobin 2013, p. 63), which occurs when players recognise other players who might be sharing a similar or the same embodied experience. Apperley and Moore (2019) argue the affective resonance created through the haptic effect of play establishes spaces for play as "users are not just playing with an app on their device, but with their body and with the bodies of others, through mutual and visible experiences of touch, gesture, comportment and mobility shared through physical proximity" (p. 8). This study aims to unpack this further by examining the experiences of players with(in) spaces for play.

Some research indicates the environment of play influences the experiences of players. Using an anecdote of his own gameplay experiences of *Halo 2* (Bungie 2004), Giddings (2009) discusses the spaces he occupies for gameplay. He refers to spaces as being "ludically charged", which was enabled by "experiential blurring of boundaries between humans and machine" (Giddings 2009, p. 146). This term resonates in this study in relation to the transformation of real-world locations into spaces for play. Ludically charged spaces influence the ways in which children interpret real-world objects. Giddings (2009) describes a scene where his wife pointed out wild mushrooms to his children while on a walk, which resulted in them

racing around a field. This is because the children associated real-world mushrooms with *Power Up Mushrooms* in the arcade racing game *Mario Kart Double Dash!!* (Nintendo 2003b), which provides a temporary speed boost for the racer. Location-based games offer an insight into these types of playful activities that emerge via the merging of the actual and augmented reality.

Pauw et al. (2017) acknowledge that Pokémon GO brings players to real-world locations and so they seek to better connect the theories of place-based learning and affinity spaces (see Section 2.4). To do this, they observed 31 Pokémon GO players aged 14-18 playing the game in certain environments such as "a church, …, a park, wooded area, stream, bridge, community garden, open field, parking lot, and office building" (Pauw et al. 2017) which all included Wayspots. Following the gameplay session, the Pokémon GO players ideated designs on flip chart paper in groups. Pauw et al. (2017) analysed the designs to posit three implications of Pokémon GO and place-based learning. They report players connecting with the environment in various ways through Pokémon GO. For example:

> In one instance, learners shifted from talking about grass type Pokémon to talking about the local plants and tried to identify them. In another instance, learners came upon a very dirty puddle with trash in it. The learners commented that they would not look for water type Pokémon there no matter what due to how polluted it was, connecting the observed pollution to the health of the Pokémon.
>
> Pauw et al. (2017, p. 277)

Furthermore, they report players showed a desire for more information about the points of interest they visited, suggesting the information about the Wayspot provided in the game was insufficient. Pauw et al. (2017) also report social interactions are important between players, though not through technology. Rather, the places in which the gameplay occurred are central to players' experiences. The summary of their findings presents an interesting line of enquiry.

> These observations and designs point to technologies putting the unique features of the place at the centre to help learners connect the places back to their affinity spaces
>
> Pauw et al. (2017, p. 278)

The small-scale study of Pauw et al. (2017) exemplifies the potential for location-based games to develop understanding of spaces for play and how players understand and interpret the world around them (see Section 2.2.3).

This section has sought to locate the study in relation to play. To do this, I elaborated on the multiple and contrasting perspectives of play pertinent to this study of Pokémon GO. It is important to note that play is bound to space, especially in the context of location-based games where gameplay occurs at real-world locations. Therefore, I now seek to explore previous thinking around space and place as a means to understand the experiences of Pokémon GO players situated within real-world locations.

2.3 – Space and Place

2.3.1 – Space

There are multiple conceptualisations of space I draw on in this study. Tschumi (1996) comments specifically on the conceptualisation of points of interest within the built environment, which correlates to the concept of the Wayspot. He considers the built environment as both spaces and events, suggesting that "architecture has always been as much about the event that takes place in a space as about the space itself" (p. 254). The duality of space and event highlights spaces as being active, rather than static entities. Spaces are therefore defined, constructed or characterised by the event taking place at the space. To capture the notion of active spaces, based on Lefebvre (1991), this study conceptualises space as a social product rather than as pre-existing physical spaces, which presumes a Wayspot is more than simply a fountain or an interesting piece of architecture and they reflect the social and economic history and current status of the location.

Lefebvre's (1991) tripartite conceptualisation of space is helpful for this study. He posits spaces are composed of three intrinsically linked elements of space: perceived, conceived and lived spaces. Perceived spaces link "daily reality and urban reality (the routes and networks which link up the places set aside for work 'private' life and leisure)" (Lefebvre 1991, p. 38). Conceived spaces demonstrate the designer's intent, which we can interpret and influence as we use the space. For example, a person could occupy a public square for relaxing during lunch hour or busk during the evening. Finally, lived spaces are described spaces through poets, artists and writers. Lefebvre's (1991) conceptualisation of space offers this study a lens through which to examine the experiences of players in spaces. This study aims to represent the lived experiences of players within lived spaces, experiences as described by myself as the author. The notion of lived experiences captures the dualism of space and events (Tschumi 1996) as Pokémon GO players interacting with Wayspots represents an event within a space.

There are other related conceptualisations of space. Soja (1996) and his theory of *Thirdspace* is derived from the work of Lefebvre (1991). He redescribes and rebalances Lefebvre's (1991) perceived, conceived and lived spaces. *Firstspace*

correlates to perceived space, *Secondspace* to conceived space and Thirdspace to lived space. Soja (1996) describes his approach as a "radically different way of looking at, interpreting and acting to change the embracing spatiality of human life" (p. 29). Thirdspace theory offers this study an alternative way of viewing points of interest and spaces. For example, the area surrounding a public library would be Firstspace, which could be represented as a map that would provide a rational perspective. Secondplace is the conceptualisation of the Firstspace, such as a poster about the library or a painting or photograph of the library. Thirdspace space relates to how people experience the library both inside and outside the building and how people interact with each other. This study, which aims to explore the lived experiences of players with(in) playful spaces, is concerned with Thirdspace. However, *thirding* encapsulates all elements of spaces as Soja (1996) illustrates Thirdspace is not distinct from Firstspace or Secondspace, rather they are interconnected, which offers the flexibility required within this study of lived spaces.

Other spatial researchers include Massey (2005) who argues that it is important to reflect on how we think about space. From the context of politics and globalisation, she argues for an understanding of space that: 1) recognises spaces a product of interrelations, therefore linking to Lefebvre (1991) and Soja (1996), 2) that acknowledges spaces do not exist in isolation and 3) recognises space is always under construction. Pierce (2019) describes Massey's view of space as "striated, highly, variegated, and dynamically evolving" (p. 6). This derives from the physical characteristics of the space, its relational proximity to other users, and the experiences of humans. Massey (2005) emphasises the need to understand space in a similar way to how we understand time. Space is not fixed and space is continually constructed, highlighted by Massey's (2005) theory of *throwntogetherness*. The dimension of time within space is also considered by Ingold (2007), who describes lines of movement that encapsulate "walking, talking and gesticulating" (p. 1) through time from birth, through a lifetime and beyond, indicating the lines continue infinitely. For Ingold (2007), walking and movement are essential elements of lived experience. He uses the concept of wayfaring, which he

defines as a coupling of "locomotion and perception" (Ingold 2007, p. 78) which he argues is "the most fundamental mode by which living beings, human and non-human, inhabit the earth" (p. 81). Space is changed or constructed by the movement of people through it. Previous studies have used Massey (2005) and Ingold (2007) as a means to understand the experiences of individuals within space. Hackett (2016) uses this understanding of space as a means to describe the movement of children through a museum to argue that movement through place creates embodied, tacit ways of knowing and experiencing the world. Therefore, an understanding of space that emphasises the progression of space is useful for this study, which considers the ambient movement of Pokémon GO players (Apperley and Moore 2019) through and within the "ludically charged" (Giddings 2009, p. 146) spaces they occupy for gameplay.

2.3.2 – Place

Agnew (2011) suggests space is general while place is more specific. For the research of Pokémon GO players and civic engagement, I draw upon a range of other conceptualisations of place that provide a greater scope for analysis. For example, Tuan (1977) correlates space to movement and place to pauses.

> If we think of space as that which allows movement, then place is pause; each pause in movement makes it possible for location to be transformed into place.
>
> Tuan (1977, p. 6)

Through this metaphor, space becomes place. This also emphasises the dynamic nature of spaces and the "event" (Tschumi 1996). The metaphor is illustrated within Cresswell (2015) who explains "when humans invest meaning in a portion of space and then become attached to it in some way (naming is one such way) it becomes a place" (p. 16). This distinction broadens the notion of an event. An event does not necessarily entail a person occupying a space. It could be more abstract, such as the naming or drawing of a space. To exemplify this, Cresswell (2015) uses a story

from Raban (1999). Within this story, Captain Vancouver during his exploration of the western North American coast during the eighteenth century witnessed natives taking strange routes through the coastal seas as opposed to the direct, seemingly more obvious route. Natives used a particular route as they perceived the sea as a series of places associated with spirits and dangers. Cresswell (2015) explains "while the colonialists looked at the sea and saw blank space, the natives saw place" (p. 15). This understanding of place, one that has a connection to people, is the basis of Lefebvre's (1991) understanding of social spaces.

As a game that relies on the augmented map, I draw attention to Mackey (2010) as a means to illustrate how young children use mapping to understand the places around them. Mackey (2010) focuses on an area of St John's, Newfoundland, Canada, which she occupied regularly as a child. Through her experiences, she describes space becoming place (Tuan 1977) through the process of mapping the area, which "takes into consideration the paths, districts, landmarks, edges—crucial components of any map" (Mackey 2010, p. 330). Mackey (2010) argues the process of adapting space to place correlates with the process of learning to reading. Both require the reader to disentangle meaning, whether it is from words on a page or from space to create place. The notion that readers draw from their real-world environment to understand a text, described by Mackey (2010) as a life-book relationship, has implications for children who have travelled less. Mackey (2010) suggests that young children have fewer opportunities to map their local surroundings due to the rise of personal car ownership and screened devices, which inhibit individuals from engaging fully with their surroundings.

There are binary conceptualisations of place as suggested by Augé (1995). He characterises a concept of *non-places*, which are places that do not have "relational, historical and concerned with identity" (Augé 1995, p. 77). His argument for this conceptualisation derives from living in an increasingly urbanised and globalised world, which have resulted in a rise of non-places such as airports and supermarkets. This understanding of place removes the social dimension, which is problematic within this study of experiences of Pokémon GO players. Akin to

Lefebvre (1991) and Soja (1996), places have also been conceptualised using a tripartite system, which offers more flexibility, such as by Oldenburg (1989) who refers to *third places* as the communal places in a society that allow a society to develop such as parks and community centres (*first places* are home and *second places* are work).

While this section so far has focused on the different ways in which space and place have been conceptualised, the literature relating to how individuals interact within spaces and places and the connections they form within the spaces and places they occupy is discussed further in Section 2.5. Next, I examine how the representation of spaces, places and Wayspots on the game map or interface have the potential to influence gameplay experiences.

2.3.3 – Representation

Within location-based games, spaces and places are represented on maps in a variety of different ways. Section 1.1 illustrated the design of the augmented reality maps of three different Niantic games and presented the concept of the Wayspot specifically within Pokémon GO. This section highlights the research that has attempted to theorise how mapping software and augmented reality maps influence understanding of space.

De Souza e Silva (2006) originally conceived *hybrid spaces* as the merger of "the physical and the digital in a social environment created by the mobility of users connected via mobile technology devices" (p. 263). While the technology pertaining to location-based games was very different in 2006 to present day 2021, the observations highlighted by de Souza e Silva (2006) are still pertinent now. De Souza e Silva (2006) acknowledges the connectivity of mobile devices is entirely different to static devices at home, such as computers. Users of mobile phones are able to "carry the digital space" with them (de Souza e Silva 2006, p. 268). A person connected to the Internet via a mobile device in a physical space belongs to a distant context as well as the physical context shared with other people. This

phenomenon is also referred to as “enfolded space” by de Souza e Silva (2006) or the doubling of space by Scannel (1996). The label “hybrid space” is preferred by de Souza e Silva (2006) as “the borders between remote and contiguous contexts no longer can be clearly defined” (p. 269). Hybrid spaces are said to enable players to move in and out of the game freely and so there is “no primary play space” (de Souza e Silva and Sutko 2008, p. 455).

Referencing early location-based games such as *Botfighters* (It's Alive Mobile Games 2001) that allowed players to connect with each other through the mobile interface in the same physical space, de Souza e Silva (2006) explains such games change the perception of physical spaces. She claims:

> By transforming the city space into the game board—or by taking the game out of the computer screen—the familiar space of the city is transformed into a new and unexpected environment. It is as if the game creates an imaginary playful layer that merges with the city space, connecting people who previously did not know one another via mobile technologies according to their movement in physical spaces.
>
> de Souza e Silva (2006, p. 272)

This is elaborated upon within de Souza e Silva and Sutko (2008) and Sutko and de Souza e Silva (2010), who use the games *I Like Frank* (Blast Theory 2004) and *Day of the Figurines* (Blast Theory 2007) to illustrate the community-building capabilities of location-based games through the interface. Location-based games have the potential to show the proximity and activities of other players, which they claim encourage players to presume community so players have fun even if other players are not nearby. This phenomenon varies depending on the type of interface incorporated within the game. Sutko and de Souza e Silva (2010) describe two types of interface as summarised in Figure 26.

Figure 26 - Game Interfaces

	Eponymous	Anonymous
Definition	• Identifies users by location and username	• Does not identify users individually
Impact on Gameplay	• Encounters with other players are goal-oriented • Communicate directly with other players • Affords coordination with friends and acquaintances	• Provides a safe façade • Players rely on appearances and behaviours to identify other players • Communicate indirectly with other players • Affords coordination with strangers

Figure 26 illustrates the format of interface of a game influences the experiences of a player, and according to Sutko and de Silva e Silva (2010), influences how a player perceives the spaces they occupy for play. This is useful in this study, which considers the impact of the augmented reality map and relation to Pokémon GO play.

I draw attention to Lammes and Wilmott (2018), who argue when location-based games use digital maps as gameboards that have playful transformative capabilities. However, they suggest this is only applicable to games that incorporate unedited everyday maps such as Google Maps and therefore retain "the original elements of their functional cartographic design" (Lammes and Wilmott 2018, p. 653). This contrasts with games such as Pokémon GO (and Ingress, see Section 1.1), whose interface is heavily stylised, exemplified through the removal of road names for example. Referring to games with this type of augmented reality map, Lammes and Wilmott (2018) argue the interface is only a "loosely embedded reflection of the physical space" (p. 652). In relation to games that use everyday maps, they argue they "hybridise the map (as a game-board) with the playground (as an area for touring)" (Lammes and Wilmott 2018, p. 653). Therefore, gameplay disrupts the "cartographic logic" of the map, which they argue offers new possibilities for the player to "renegotiate spatial relations" (both, Lammes and Wilmott 2018, p. 653). Games with everyday maps as a gameboard are said to heighten the affordances of mapping, enabling users to navigate their environment using the map from the

game. Play transforms the purpose of the map and the functionality of the space. However, this only applies to games which incorporate everyday maps, effectively excluding Pokémon GO. This study aims to understand how the augmented reality map of location-based games such as Pokémon GO, which do have a stylised map, influences how players understand or occupy the spaces in which they are playing.

Wayspots are real-world locations represented on the augmented reality map of Pokémon GO as either PokéStops or Pokémon Gyms (see Section 1.1). Information about the Wayspot is coded into the game, which can be accessed when visiting and interacting with the Wayspot within the game. I previously discussed this in relation to stealth learning (see Section 2.2.3). The availability of information for the player is important as it is said that "if a device gives you a personalised view on an unfamiliar place, it changes your experience of that place" (Russel 1999, p. 28). The linking of information to places has origins that pre-date GPS (de Souza e Silva and Frith, 2010). *Worldboard* aimed to enhance physical spaces with digital information, which would for example allow individuals to "simply look at the night sky and see the outlines of the constellations" (Spohrer 1999, p. 602). Spohrer (1999) suggested three ways in which location-aware technology is able to alter perception of space and place: digital information becomes a part of the space, spaces can be personalised for the individual, and useful information about the space is stored within the space meaning it is readily available.

However, some researchers argue that the interface of the mobile game poses a barrier, preventing the player from connecting with real-world locations in a meaningful way (Farman 2012; Gazzard 2011) and warn caregivers and the public of the dangers of playing the game (Barbieri et al. 2017; Serino et al. 2016). Farman (2012) critiques the spaces of immersion within location-based games. Describing the gameplay as immediate, he ascertains that "players are not cognitively aware of the process of sensory-inscription and thus are unaware of how their body is inscribed across the spaces of play and the everyday" (Farman 2012, p. 82). Elaborating on an incident where a Geocacher was reported for suspicious behaviour, Farman (2012) believes players of location-based games are not aware

of their surroundings as they are too focused on play. Therefore, by playing the game, the player is separated from the physical location. Furthermore, Gazzard (2011) examines how relationships with spaces and places might be changing. While not necessarily a critique of location-based games, she explores the notion that locations have a functional purpose only. For example, Gazzard (2011) questions whether the spaces occupied by players of location-based games are viewed simultaneously. In this context, she refers to real-life world spaces and the augmented map. Her analysis of location-based games supports Farman (2012) as she believes the real-world locations are obscured by the game screen. The location in which the game is being played is not the focus, rather the "game layer becomes the primary focus" (Gazzard 2011, p. 413). This suggests that while the player physically occupies spaces, they are not truly aware of the surroundings since the player is focused more on the game. This is further exemplified by Barbieri et al. (2017) who use a case study of a Pokémon GO player to demonstrate the risk of location-based games. Their analysis of the case study, which involved a Pokémon GO player being hit by a van while crossing the road, indicated it was the inattention of the player that caused the collision. The case studies presented by Farman (2012) and Barbieri et al. (2017) illustrate there are risks playing games in urban environments, though it is problematic extrapolating the severity of the risk based on individual cases.

The overlay of the digital images on physical world contexts is explored within Ortiz de Gortari (2018) in the context of Game Transfer Phenomena (GTP), which they define as:

> Hallucinatory-like phenomena in various sensory modalities with video game content (e.g., seeing images, hearing sounds, tactile and proprioceptive sensations, misperceptions of real-life objects that share similarities with elements in the game, and perceptual distortions of objects and environments
>
> Ortiz de Gortari (2018, p. 383)

Akin to this study, Ortiz de Gortari (2018) acknowledge location-based games offer a unique lens to study games as gameplay occurs at specific locations where players shift between the physical and virtual worlds. She reports 80% of the survey participants experienced some form of GTP. This indicates players of Pokémon GO visualised elements of Pokémon GO in their mind when their eyes were closed, re-experiencing music from the game, pretending to catch Pokémon through hand gestures, all of which are often triggered by a stimulus in the physical world, highlighting the importance of Wayspots for playful experiences. Ortiz de Gortari (2018) indicates the locations in which players play Pokémon GO have meaning to the player, at least at a subconscious level.

2.3.4 – Barriers

Pokémon GO players can experience conflict when playing in public spaces. Before I discuss this further, it is interesting to note how the media portrayed Pokémon GO players, particularly in the days following the release of Pokémon GO in July 2016. Here, I discuss a small selection of articles from the reporters' point of view that indicate it is the players themselves who appear to cause conflict within the community.

Griffin (2016) describes how Pokémon GO players plagued a couple's house after it turned into a Pokémon Gym. The author used tweets from a resident to describe the potential impact of Pokémon GO such as lowering of house prices, increase in burglary, loitering, and ultimately death, since some US laws permit shooting of trespassers. However, the tweets were used out of context as the resident actually believed the situation was humorous and as a pastor, enjoyed meeting new players. Articles representing players as irresponsible and reckless also surfaced (BBC 2016). This article highlighted how a Pokémon GO player found a dead body in a Wyoming river while searching for a PokéStop, suggesting the player was responsible in some way for a crime. The author included a range of anecdotes of players across the world, presenting Pokémon GO as a cause of injuries from sprained ankles to broken bones because players "can't look away from their

phones". While it is not uncommon for moral panic of this nature to arise following the release of a new game and technology (Laycock 2015), negative prevailing views can impede the positive effects of gameplay (see Section 2.5).

Nonetheless, the requirement to occupy real-world locations may pose a barrier for some players as hypothesised by Potts and Yee (2019). There is a body of research showing differences in gender and age within public spaces such as McDowell (1983). The perceptions of fear within public spaces has been a point of interest within feminist geography literature as studies have shown that women experience "a heightened discomfort and fear in public spaces compared to men" (Potts and Yee 2019, p. 4). This is explored further within Malone and Hasluck (1998), Day (2000), Whitzman (2007) and Yon and Nadimpalli (2017). There may be differences in public space usage due mobility issues (Day et al. 2003; Smith 2008; Yavuz and Welch 2010). Furthermore, marginalisation and exclusion are considered factors for differences in public spaces by Potts and Yee (2019), drawing on literature suggesting housing near to public spaces may exclude women from public spaces (Whitzman 2013).

Acknowledging in the context of Pokémon GO that gender, age and spaces is largely unstudied, Potts and Yee (2019) surveyed 994 Pokémon GO players through a questionnaire distributed via social media. However, their results indicated there was little statistical difference between males and females in relation to fear and safety, mobility and access and marginalisation. The results do not follow previous literature, where statistical differences between age and gender in relation to game use are found (McDowell 1983). They postulate this could be because of a range of reasons such as players avoiding the public spaces where they feel less comfortable or that players are more likely to visit highly populated locations to increase the likelihood of finding other players. In summary, since all players are found to feel responsible for the locations in which they play Pokémon, Potts and Yee (2019) suggest Pokémon GO can improve players' sense of place and connection to the places in which they are playing. This therefore presents Pokémon GO as an "a significant opportunity to increase public engagement with

underutilised public spaces, increase the physical and mental health benefits of public space use, and encourage greater socialization within communities" (Potts and Yee 2019, p. 14).

Akil (2016) reflects on how being a black man in the United States has affected his gameplay experiences. The emotional language in the article expresses the player's fear playing in public spaces, a gameplay feature which he describes as ruining the game. This sentiment is highlighted further given the Black Lives Matter movement of 2020. Furthermore, being homosexual can pose a barrier to engagement with and within public spaces (Valentine and Waite 2012). Marginalisation of minority groups means not all individuals have equal access or have the same experiences within public spaces. Though not specifically in the context of race or homosexuality, Feldman (2018) investigates the barriers of players of Pokémon GO in urban spaces. Through analysis of comments on social media platform Reddit, he highlights the potential hostility players face when they choose to play Pokémon GO in particular locations. The study indicates players have experienced "verbal harassment, aggressive language, and assumptions of criminality" (Feldman 2018, p. 295) at the locations they play Pokémon GO.

Experiences of place are complex and varied. This study contributes to the discussion of how an individual's interaction with locations can vary depending on personal and social factors. This section highlights the factors which could influence how Pokémon GO players engage with real-world locations. Though this is counteracted to a degree by being a gay man, as a young, white British male, I acknowledge there are certain privileges I have when it comes to safety, mobility and marginalisation, especially when travelling to new locations.

2.4 – Affinity Spaces

The aim of this study is to explore the playful experiences of Pokémon GO players within spaces for play. Section 2.2 considered previous thinking on the nature of play afforded by location-based games such as Pokémon GO, which highlighted the link between play and learning. Section 2.3 discussed different conceptualisations of spaces, place and the affordances of the augmented reality map. In this section, I define affinity space theory and explain how the theory underpins this study.

Conceptualised by Gee (2004), affinity spaces are described as "a place or set of places where people affiliate with others based primarily on shared activities, interests, and goals, not shared race, class culture, ethnicity, or gender" (p. 67). Alternatively, affinity spaces have been defined as "the physical and virtual locations (or some combination of the two) where people come together around a shared interest or 'affinity'" (Hayes and Duncan 2012, p. 3). Embedded within this definition of affinity spaces is the notion that affinity spaces can be both physical spaces (such as a classroom or a science laboratory) or online spaces (such as an online forum or social media group). Gee (2004) originally based the concept of affinity spaces on videogame cultures, though he noted spaces are not just associated with videogame communities as "fans of everything (e.g. movies, comic books, television shows, videogames, various lifestyle choices) create and sustain affinity spaces" (p. 87). The basis of the theory derives from Gee's (2004) challenge of traditional schooling, who argues affinity spaces are the most ideal learning environments and potentially offer a better alternative to traditional school, prompting learners to question "why school?" (p. 89). For example, he outlines how a typical classroom streams learners by age or ability and all learners are encouraged to gain the same knowledge whereas affinity spaces are not segregated by factors such as age.

Affinity spaces are said to offer a "powerful vision of learning, affiliation, and identity" (Gee 2004, p. 89). As a potentially powerful learning environment or resource, affinity spaces have become the subject of research across the academic community in different contexts (Hayes and Duncan 2012). For example, Wu (2016)

investigates the affinity space of Minecraft hosted on the website *Reddit.com*. The website Reddit is a popular online forum, which is organised around numerous topics, which lends itself well to host affinity spaces (Staudt Willet and Carpenter 2021). On the other hand, Davies (2006) uses the website *Flickr.com* to explore the interactive learning processes of the users. The social media platforms of interest in this study are *Discord* and *The Silph Road.* Discord is an instant messaging platform that allows users communicate via text, voicecalls or videocalls in private chatrooms named *servers*. The platform is simple, practical and easy to use (Raihan 2018). While there are Discord servers based on a range of topics, The Silph Road is specific to Pokémon GO. This fan-created website includes user guides, news stories, and a *Nest Atlas* which indicate the distribution of Pokémon across the world (see Chapter 5, Episode 2). There are limited communication facilities directly on The Silph Road website. There are Discord servers and Reddit forums based on The Silph Road content, though these are not included within the scope of this study (see Section 3.4.2 on data generation).

Many studies focus on online affinity spaces (see Hayes and Duncan 2012). Gee and Hayes (2012) acknowledge the Internet "lends itself extremely well to the creation of online spaces" (p. 6). Despite the prevalence of the Internet, offline spaces have been shown to still be important (Pauw et al. 2017). Case studies presented by Aljanahi (2018) indicate the affinity spaces in which the participants were involved centred upon offline interactions, not online. The argument that affinity spaces can be physical environments is central to the arguments of Gee (2004) and Gee and Hayes (2012) in their critique of schools. This is because "teachers can create affinity spaces within the physical environment too" (Curwood et al. 2013, p. 684) such as through providing students with spaces to work based on interests, which would facilitate various levels of involvement. Gee (2018) describes how his childhood was mostly situated within a Catholic affinity space, which was made up of smaller, linked spaces. This included: home, school, church, cathedral, other people's homes, Rome, social events, sport, school and college (Gee 2018, p. 8). The inclusion of offline spaces within the analysis of affinity spaces is crucial within this

study of Pokémon GO. The game draws players to real-world locations for gameplay so the role of real-world locations must be accommodated.

In this study, affinity space theory is used to understand the ways in which the Pokémon GO affinity space I occupy shape or influence my Pokémon GO gameplay experiences. To do this, I illustrate the ways in which Gee's principles of affinity spaces manifest in my Pokémon GO affinity space. In Gee (2004), there are eleven defining characteristics of an affinity space. Following additional research on *The Sims 3* (EA 2009), Gee and Hayes (2010) expanded the list to fifteen, which I use in this study. I provide a description of each characteristic below, highlighting in bold when I quote a specific characteristic. In addition, the fifteen characteristics are summarised in Gee and Hayes (2012) and listed in Appendix 3. It is important to note these are characteristics of a *nurturing* affinity space (Gee and Hayes 2012). This distinction is crucial since not all affinity spaces are nurturing. Gee and Hayes (2012) argue "human learning becomes deep, and often life changing, when it is connected to a nurturing affinity space" (p. 8). Furthermore, Gee and Hayes (2012) demonstrate it is not expected an affinity space would exhibit all the features, rather, a space that has more of these features is "closer to being a paradigmatic affinity space" (Gee 2004, p. 85). In addition, the features are not absolute, rather affinity spaces are defined by "fuzzy boundaries and not necessary and sufficient conditions" (Gee and Hayes 2012, p. 6).

Affinity spaces are said to attract individuals with "a common endeavour for which at least many people in the space have a passion is primary" (Gee and Hayes 2012, p. 9). Individuals within an affinity space engage with one another based on common interests, goals and practices. This study highlights there are multiple elements of Pokémon GO gameplay upon which players can develop a shared affinity, such as capturing all available Pokémon or becoming a competitive battler. Constructs such as race, age, gender are backgrounded (Gee and Hayes 2012). Gee and Hayes (2012) argue this is "particularly enabled and enhanced in virtual affinity spaces (Internet sites) because people can enter these spaces with an identity and name of their own choosing" (p. 9). Whether variables such as race are influential in offline

affinity spaces is not fully articulated as these cannot be so readily or easily hidden. It is crucial individuals are passionate about the common interest for the survival of the affinity space, implemented through individuals "accommodating new members and encouraging committed members" (Gee and Hayes 2012, p. 10). Players must collaborate with others to achieve common goals (Steinkuehler 2010).

Pokémon GO is accessible for players of all ages such as through the simple catching mechanic, which entails simply swiping the screen to catch a Pokémon. To accommodate a diverse playerbase, "affinity spaces are not segregated by age" (Gee and Hayes 2012, p. 10). Collaboration and interaction within an affinity space involve individuals of all different ages. Older individuals are not necessarily the most experienced, though they usually "set a standard of cordial, respectful, and professional behaviour that the young readily follow" (Gee and Hayes 2012, p. 11). There is not an assumption young people cannot teach or guide older individuals. Affinity spaces can level the playing field, making it possible for younger people with more experience to provide support to older beginners. Furthermore, affinity spaces accommodate individuals of all skill levels and interest levels and therefore "newbies, masters, and everyone else share a common space" (Gee and Hayes 2012, p. 11). Individuals with different goals such as defeating particular Raid bosses or earning Gold Gym badges share the same space. Players of different commitment levels such as casual and competitive players also share the same space. Through the passion exemplified within nurturing affinity spaces, the space will offer the less-committed players the opportunity to become passionate. This is enabled particularly by the welcoming of new players in the affinity space (Davies 2006).

Affinity spaces provide flexibility in terms of what the spaces offer individuals. This means "everyone can, if they wish, produce and not just consume" (Gee and Hayes 2012, p. 12). Affinity spaces allow players to create content, consume content or both. For example, affinity spaces allow players to learn about design, but also to embody the role of designer (Duncan 2010). In the context of Pokémon GO, this entails affinity spaces enabling individuals to engage passively through reading guides, tutorials and examples submitted by other users. This also entails

individuals having the ability and encouragement to create their own content, which could take the form of a guide or screenshot of an achievement with the game. Furthermore, players are encouraged to make personal contributions in the format of their choosing meaning there are no expectations for individuals to contribute in a particular way. Content within an affinity space is a result of continuous social interaction within the space. The content is "transformed by interaction" (Gee and Hayes 2012, p. 13) and therefore in "constant flux" (Lammers et al. 2012, p. 55) and not fixed. Gee and Hayes (2012) note this is particularly evident in "forum discussions around, for example, tutorials, in which people add information, ask questions, and otherwise contribute a whole set of new information" (pp. 13-14). Curwood (2013) expands on this notion further as participants not only negotiate content in the space but also standards, norms and values.

On knowledge, "the development of both specialist and broad, general knowledge are encouraged, and specialist knowledge is pooled" (Gee and Hayes 2012, p. 14) within affinity spaces. Affinity spaces encourage individuals to gain and spread both broad, general knowledge and specialist knowledge. In the context of Pokémon GO, broad knowledge includes how to capture and battle Pokémon whereas specialist knowledge entails eligibility for new Wayspots. Therefore, individuals can bring intensive knowledge to the space, which is accessible for all others (Hayes and Lee 2012). This creates a community of people who share knowledge, but where every individual can contribute (Duncan 2010). The role of offline spaces is not fully articulated here. Information may be pooled on a physical noticeboard or filing cabinet within a classroom setting but it is unclear how specialist knowledge is pooled within outdoor locations. Furthermore, "both individual and distributed knowledge are encouraged" (Gee and Hayes 2012, p. 15) within affinity spaces. In this context, individual knowledge is knowledge for personal use that is "stored in their heads" (Gee and Hayes 2012, p. 15). On the other hand, distributed knowledge is the "collective knowledge accessible through … the affinity space" (Gee and Hayes 2012, p. 15). The collective knowledge is pooled (as stated above) which enables individuals to have access to more information and know more than what could be achieved individually. This also means "the use of dispersed knowledge is

facilitated" (Gee and Hayes 2012, p. 16). Affinity spaces allow knowledge to be used in two ways. Individuals are encouraged to gain knowledge for their own development or use (such as the knowledge of the location of a Pokémon, which a player uses to capture a new Pokémon) and also to distribute the knowledge to others within the space if they choose to do so (such as knowing the location of a Pokémon, which is shared to allow others to capture the Pokémon). Distributed knowledge generated by individuals is stored "in material on the site (or links to other sites), or in mediating devices such as various tools, artifacts, and technologies to which people can connect or "network" their own individual knowledge" (Gee and Hayes 2012, p. 15). The ability to access knowledge in this way allows players to operate independently. Furthermore, individuals with expert knowledge acknowledge their "expertise is always partial and limited" (Gee and Hayes 2012, p. 16). This means experts can draw upon the distributed knowledge to supplement their individual knowledge. Their individual knowledge is honoured though "the public display of individual expertise is less important than contributing to the collective knowledge of the space" (Gee and Hayes 2012, p. 16).

Within affinity spaces, "tacit knowledge is used and honoured; explicit knowledge is encouraged" (Gee and Hayes 2012, p. 18). Knowledge gained through practice and experimentation is valued and the sharing of this knowledge is encouraged. This is enabled by affinity spaces having spaces for shared content, a place to share the information such as Discord or The Silph Road. This could be through contributions to forum threads or real-time group chats (Albers et al. 2016; Duncan 2010; Gee and Hayes 2012). The sharing of knowledge in this way allows players of all skill levels to support each other (Curwood 2013). Affinity spaces encourage a view of learning where "individuals are proactive", and where failure is an acceptable step on the path to success (Gee and Hayes 2012, p. 22). Individuals can seek assistance from others in the space, though this does not replace an individual's responsibility to be independent and responsible for their own learning and progress. Regarding newcomers to an affinity space, Gee and Hayes (2012) indicate there is considerable tolerance for those "who may not yet be able to locate information readily and thus

ask redundant questions" (p. 22). This approach welcomes and supports new individuals (Davies 2006).

There are no set rules or expectations in relation to how individuals participate or contribute to an affinity space, which means "there are many different forms and routes to participation" (Gee and Hayes 2012, p. 20). Individuals may join and leave the affinity space, offering flexibility. Individuals may participate peripherally or centrally and this may change over time. In this sense, participation of players varies from observation to active production, characterised by "intense commitment or engagement with media or technology" (Horst et al. 2010, p. 65). Therefore, the role of individuals may shift from mentor to consumer, and this too may change regularly over time. As such, this means "there are many different routes to status" (Gee and Hayes 2012, p. 20). Individuals within an affinity space can achieve status by demonstrating skills in a wide variety of areas. In the context of Pokémon GO, players can achieve status within a range of different gameplay elements such as the player with the most Pokémon caught, the most steps taken, or the most diverse collection of Pokémon from different regions. Within a gaming affinity space, individuals may gain expert status for accomplishments "as content creators, others for their tutorials, and still others for their roles in creating and managing the spaces themselves" (Gee and Hayes 2012, p. 20). It is not expected all individuals will strive for a certain status. This links to the notion that affinity spaces support the exploration of role-specific identities (Barany and Foster 2020; DeVane 2012).

Furthermore, "leadership is porous and leaders are resources" (Gee and Hayes 2012, p. 21). Gee and Hayes (2012) make a distinction there are no "bosses" but rather there are "leaders" within an affinity space, drawing on the positive connotations of a leader who would not order or dictate to others. Leaders within affinity spaces have different roles such as "designers, mentors, resourcers, and enablers of other people's participation and learning" (Gee and Hayes 2012, p. 21). By porous, Gee and Hayes (2012) refer to the boundary between leader and follower as individuals can become leaders and leaders can participate as members fluidly,

meaning “roles are reciprocal” (Gee and Hayes 2012, p. 21). Within an affinity space, there is flexibility and reciprocity of roles. An individual may lead and mentor. Conversely, the same individual would be led and be mentored. An individual may both ask and answer questions. Individuals with expert knowledge “view themselves as always having more to learn … and not in it only for themselves” (Gee and Hayes 2012, pp. 21-22) illustrating individuals have a shared passion for a common endeavour.

Within an affinity space, “people get encouragement from an audience and feedback from peers, though everyone plays both roles at different times” (Gee and Hayes 2012, p. 23). The feedback originates from any audience within an affinity space such as a contributor on a discussion board. Gee and Hayes (2012) indicate “everyone in an affinity space may be an audience for some people and potential peers for others” (p. 23) showing this type of encouragement is the responsibility of all individuals, not specifically leaders or experts. Producers get constructive feedback and help from peers or those whom they view as experts. However, who counts as a peer will change as new skills are mastered (Lammers et al. 2012).

While I use Gee and Hayes’ (2012) principles of affinity spaces as described above to understand the experiences of Pokémon GO players, affinity spaces invite new ways to observe and examine literacy practices. In this context, *literacy* is not used in a traditional sense, where literacy is concerned with books and writing “as a set of skills, which are taught in school” (Pahl and Rowsell 2012, p. 8). Through his interest in videogames, Gee is associated with New Literacies Studies (NLS), which conceptualises literacy much more broadly. He defines NLS as:

> A body of work that argues that reading and writing should be viewed not only as mental achievements going on inside people’s heads, but also as social and cultural practices with economic, historical, and political implications.
>
> Gee (2007, p. 9)

There are a number of other key thinkers in this field (Barton and Hamilton 1998; Gee 1992, 2000; Lankshear and Knobel 2006; New London Group 1996; Pahl and Rowsell 2010; Street 1993, 1995, 1997, 2005). Conceptualising literacy as a socially situated practice, this ideological model of literacy (Street 1993) highlights how literacies are used in everyday life and places significant emphasis on the social and cultural practices of literacy. Research within New Literacies Studies highlights the importance of an evolving understanding of literacies that can accommodate shifting digital practices (Beavis et al. 2009) such as the emerging technology pertaining to location-based games.

Many studies on affinity spaces indicate that participation in affinity spaces is a literacy activity (Ehret et al. 2016; Lammers et al. 2012; Squire 2011; Steinkuehler 2010). In her analysis of the digital game *Lineage* (NCSoft 1998), Steinkuehler (2010) describes a range of literacy practices deriving from elements of gameplay that might not exist within print-based literacy. Within gaming affinity spaces, literacy practices cited most regularly include writing walkthroughs, participating in forums and fan fiction (Duncan 2010; Meyers et al. 2013; Steinkuehler 2010). This is important as it has been noted that literacy practices such as these enable individuals to achieve academic success (Aguilar et al. 2015). For example, Curwood (2013) illustrates how young males who were achieving below average academically were found to read above average when assessed on gaming-related texts online. The multimodal (Kress 2009) nature of affinity spaces encourages collaborative meaning-making that is more user focused as opposed to text focused (Curwood 2012; Gee 2004; Hayes and Lee 2012; Knobel and Lankshear 2008; Squire 2011), which is more accessible to a wider audience. On multimodality, Marone (2015) claims it is "one of the leading methods to communicate and socially construct knowledge, as participants use combinations of words, pictures, external links, videos, and game tutorials in their interactions" (p. 98). Therefore, participants in affinity spaces potentially develop in digital fluency as they navigate the multimodality of the spaces they occupy.

This study builds on understanding of affinity space theory through the analysis of a Pokémon GO affinity space using the characteristics of affinity spaces (Gee and Hayes 2012) and exploring the literacy practices within an affinity space. However, there are critiques of affinity spaces. Current critique of affinity spaces centres on the need to adapt the theory based on changing technology and online practices. It has become necessary to develop and expand upon Gee's (2004) original conceptualisation of affinity space and therefore the theory has evolved over time and is still evolving. Hayes and Duncan (2012) reiterate "the notion of an affinity space, while productive, is one that is evolving and shifting as it has been applied to new contexts" (p. 11). When affinity spaces were conceived (Gee 2004), affinity spaces were defined by a central portal such as a forum, representative of the Internet use at the time. Since the early 2000s, the expansion of the Internet means affinity spaces now operate across multiple modes and mediums (Lammers et al. 2012).

Lammers et al. (2012) build on Gee's original concept of affinity spaces. They posit an affinity space methodology, thereby reconceptualising affinity spaces as a methodological tool. They suggest when conducting affinity space research, focus should lay on slightly different areas that derive from the original characterisation of affinity spaces (Gee 2004) (Figure 27).

Figure 27 – Lammers et al. (2012) Characteristics of Affinity Space

1) A common endeavour is primary
2) Participation is self-directed, multifaceted and dynamic
3) In online affinity space portals, participation is often multimodal
4) Affinity spaces provide a passionate, public audience for content
5) Socialising plays an important role in affinity space participation
6) Leadership roles vary within and among portals
7) Knowledge is distributed across the entire affinity space
8) Many portals place a high value on cataloguing and documenting content and practices

9) Affinity spaces encompass a variety of media-specific and social networking portals

Lammers et al. (2012, pp. 48-50)

Lammers et al. (2012) include elements within their conceptualisation of affinity spaces that are not explicitly present in Gee and Hayes (2012). For example, researchers must account for multimodal texts within affinity spaces as "participants […] produce creative and multimodal content to demonstrate their media fandom, creating websites, avatars, blogs, videos, maps, [and] podcasts" (Lammers et al. 2012, p. 48). This is attributed to the development of technology which allows different media to be uploaded more easily. This is significant given it is one of the leading methods of communication (Marone 2015) and the calls to promote multimodality in education (Curwood, 2012; Magnifico et al. 2018). Furthermore, Lammers et al. (2012) highlight how affinity spaces are "in constant flux" (p. 55) due to new technologies and social media platforms. This means participation, engagement and the structure of affinity spaces must always adapt or be prepared to adapt.

I note affinity spaces are often compared to *communities of practice* (Lave and Wenger 1991; Wenger 1998; Wenger 2010). This describes a "group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger 2010, p. 179). Both Gee and Hayes (2012) and Squire (2011) oppose community of practice as a label and concept as it assumes individuals are linked geographically, which is not exhibited within online environments. In addition, identifying membership of communities of practice remains problematic. According to Gee (2005), the concept of membership is tenuous as it "means such different things across different sorts of communities of practice … [and because] … there are so many different ways and degrees of being a member in some communities" (p. 215). However, in the context of this study of location-based games, players are linked geographically through Wayspots integrated into the mechanics of the game (see Section 1.1). While both *communities of practice* and *affinity spaces* are populated by individuals within a shared space,

communities of practice require belonging (which implies exclusion), whereas affinity spaces are not bound to membership (Gee 2004). Furthermore, affinity spaces are affective spaces, which may be present in communities of practice, but this is not the main driver of affiliation.

Bommarito (2014) is critical of Gee's notion of affinity space. He emphasises the theory does not adequately account for the "sense of belongingness felt by participants" (p. 407). Lammers (2011) illustrates members of affinity spaces have a desire to be linked to other real people and suggests that the desire to consume and contribute within an affinity space is a result of the sense of belongingness individuals feel. Understanding belongingness and affinity spaces is crucial within this study as this generates the following questions: do Pokémon GO players have a sense of belongingness with the real-world locations of gameplay and is this important in relation to the experiences of Pokémon GO players? In Section 2.5, I unpack this further by exploring the literature relating to people-place relationships.

2.5 – Place Bonding

This section reviews the existing literature relating to people-place relationships, which indicates individuals can develop strong affective and emotional relationships with the locations they occupy (Hammitt et al. 2006). Following Cheng and Kuo (2015), I use the label *place bonding* to encapsulate a blanket of related concepts and terms, which are often used interchangeably (Hidalgo and Hernandez 2001). This section spotlights place attachment (Section 2.5.1), place identity (Section 2.5.2) and place dependence (Section 2.5.3). The importance of place bonding is outlined, drawing on the discursive claims relating specifically to location-based games as outlined by Leorke (2019) (Section 2.5.4).

2.5.1 – Place Attachment

Oleksy and Wnuk (2017) define place attachment as "a specific, deep bond with a location" (p. 3). Research on place attachment has roots in psychology and health, with research on the predictors (Low and Altman 1992), its cultural applicability (Lewicka 2011), and outcomes (Devine-Wright 2009). Place attachment has been researched in a range of different contexts. For example, repeated interactions and regular visits to specific locations can increase the sense of place attachment and this is evident across different recreations such as: visitors to national parks (Kyle et al. 2005), dog owners walking their pets in parks (Lee and Shen 2013), people using sporting places (Madgin et al. 2016) and informal meeting places such as cafés or pubs (Oldenburg 1989).

In relation to Pokémon GO, Oleksy and Wnuk (2017) aim to establish whether players develop place attachment with the locations of gameplay - Wayspots. They conducted an online survey of nearly 300 participants, focusing on four categories: engagement playing the game, game satisfaction, affective appraisals, and social relations. The study entailed capturing gameplay statistics to make claims about players and their relationship with the environment. Results indicate Pokémon GO gameplay is not related to active place attachment and players did not perceive the locations in which they played the game as exciting. This is corroborated by Gazzard (2011) who believes "there is no attachment to particular parts of the space

where objects to be collected may lie" (p. 414). However, when examining place attachment in relation to social relations, Oleksy and Wnuk (2017) explain "place attachment was found to relate to satisfaction gained from playing and the social contacts made during the game" (p. 6), demonstrating the importance of social interactions. However, Oleksy and Wnuk (2017) acknowledge their quantitative methodology might not have been the most appropriate approach to ascertain a player's attachment to place. The limitations of this study offer an opportunity for this research. Through an autoethnographic methodology (introduced in Section 1.5 and discussed further in Chapter 3), this study aims to explore the ways in which players form connections with the locations in which they play Pokémon GO.

2.5.2 – Place Identities

While place attachment is defined as the process of attaching oneself to a place, *place identity* refers to the ways in which physical and symbolic attributes of certain locations contribute to an individual's sense of self or identity (Proshansky et al. 1983). For example, Bélanger et al. (2012) considered the impact of a redevelopment project on a community in Montréal. The industrial area, occupied by mainly low-income residents, was transformed into an area with luxury housing that is socially and economically different to surrounding areas. Even though the area was highly developed, Bélanger et al. (2012) illustrate the development of the area had no immediate impact on place identity and residents maintained a strong sense of connection to the area. Through participant sketches of the area, the researchers identified the canal as a central part of the community, which remained mostly unchanged following the redevelopment. They speculate the canal could "represent the industrial past as much as a new post-industrial leisure space" (Bélanger et al. 2012, p. 60).

In the context of Pokémon GO, Vella et al. (2019) aim to understand how locations of gameplay contribute to a player's place identity. They describe place identity as the physical world becoming "the embodiment of the individual's memories, experiences, ideas, and the values built up over time and in place" (Vella et al. 2019,

p. 586). The use of Pokémon GO to research place identity is justified through the gameplay mechanics, which "encourage lingering in local public spaces … [which] might promote health and well-being through the development of a sense of belonging, both to others and to place" (Vella et al. 2019, p. 587). In this study, Vella et al. (2019) conducted semi-structured interviews with players and collected and analysed a selection of global social forum posts from *Reddit*. On place identity, they report players develop a sense of belonging through both a connection to the spaces of play and other players (Vella et al. 2019, p. 590). The researchers include direct quotes from participants to illustrate the significance of place for players of Pokémon GO, three of which I share below. For example:

> … it's brought the community together in my hometown, at least, because you'll see lots of people congregating around Gyms or PokéStops and things like that. (P3)
>
> Vella et al. (2019, p. 590)

A common theme within the discussion on the sense of belonging and social connectedness is how this applies to both physical spaces, as shown above, and online spaces. Vella et al. (2019) reference participants engaging with a range of activities organised through social media, such as the following:

> … there's just been Facebooks of, like, Pokémon walk, Pokémon get-togethers and like the first time that they had launched that, I walked with a—like over 400 people (P14)
>
> Vella et al. (2019, p. 592)

Within the interviews, Vella et al. (2019) identify themes of nostalgia relating to place. Players recalled fond memories relating to specific places of gameplay. For example:

> I had no idea there was such an awesome kids park in the middle of the botanic gardens. I had no clue … I used to go there a lot when I was very young, there used to be all these trees you'd climb and things like that and now it's all different.
>
> Vella et al. (2019, p. 593)

While nostalgia to place is shown to be important, research on nostalgia towards the Pokémon franchise itself is interesting. Ghazali et al. (2019) conducted an online survey in Malaysia to ascertain the motivation for continuing playing Pokémon GO. They report "nostalgia has no significant relationship with players' continuance intention" (Ghazali et al. 2019, p. 661). Furthermore, within their survey, they asked players about their past experiences of Pokémon GO. The findings reiterate that most players did not play Pokémon-related media during their childhood, meaning that the majority of players in their study did not feel nostalgic towards the franchise. However, for players who do have a history with the Pokémon franchise, nostalgia is significant as Pokémon GO enables players to relive the childhood dream of being a real life Pokémon trainer (Vaterlaus et al. 2019). Therefore, while nostalgia is an important factor for players who have already experienced Pokémon in their past, it is not necessarily a prerequisite. Ghazali et al. (2019) do not speculate on why this is the case though it suggests there is a motivating factor outside of the Pokémon franchise that is responsible for the game's popularity, which this study aims to explore.

Vella et al. (2019) are curious about the long-term impact of Pokémon GO gameplay on players' connection to place. Considering the future of Pokémon GO, they speculate "as this franchise ages and produces further iterations, it will be interesting to note if the passion players have for the game becomes entangled with a nostalgic connection to place, via memories of game conquests or encounters sparked by the game" (Vella et al. 2019, p. 600). This study offers a contribution to this discussion. Connection to place might not be immediate but rather, is developed over a period of regular, consistent gameplay. Therefore, the transformative capabilities of Wayspots might only be possible to ascertain until a

certain period of time to allow the connection to place to develop, which this study is able to scrutinise.

2.5.3 – Place Dependence

Previous sections describe place attachment as a bond an individual can develop with a location and place identity as the ways in which physical and symbolic attributes of certain locations contribute to an individual's sense of self or identity. Place dependence, on the other hand, has previously been defined as reliance on a place, reflected in the importance of a place at providing features and conditions that support specific goals and desired activities (Stokols and Shumaker 1981; Williams and Roggenbuck 1989). Place dependence describes "an occupant's perceived strength of association between him or herself and a specific place" (Stokols and Shumaker 1981, p. 547). This is said to derive from a process in which an individual assesses one location against others to determine the capability of the location to meet the individual's needs (Hammitt et al. 2006; Stokols and Shumaker 1981; Williams et al. 1992). The ability of a location to meet several needs is said to lead to a stronger dependency (Stokols 1979). For example, an individual who fishes recreationally is likely to develop a stronger place dependency with a location proximal to a coastline, lake or river. Hammitt et al. (2006) emphasise the difference between place attachment and identity and place dependency. They suggest "place dependence contains an element of specificity where the necessity of certain resources is required" (Hammitt et al. 2006, p. 23). Therefore, an individual may identify with a range of similar locations but depend on only a select few. Hammitt et al. (2006) posit this could result in place dependence being less common, but stronger in intensity. While place attachment (Oleksy and Wnuk 2017) and place identity (Vella et al. 2019) has been researched in the context of Pokémon GO, place dependency has not, meaning this study offers insight into this area of research.

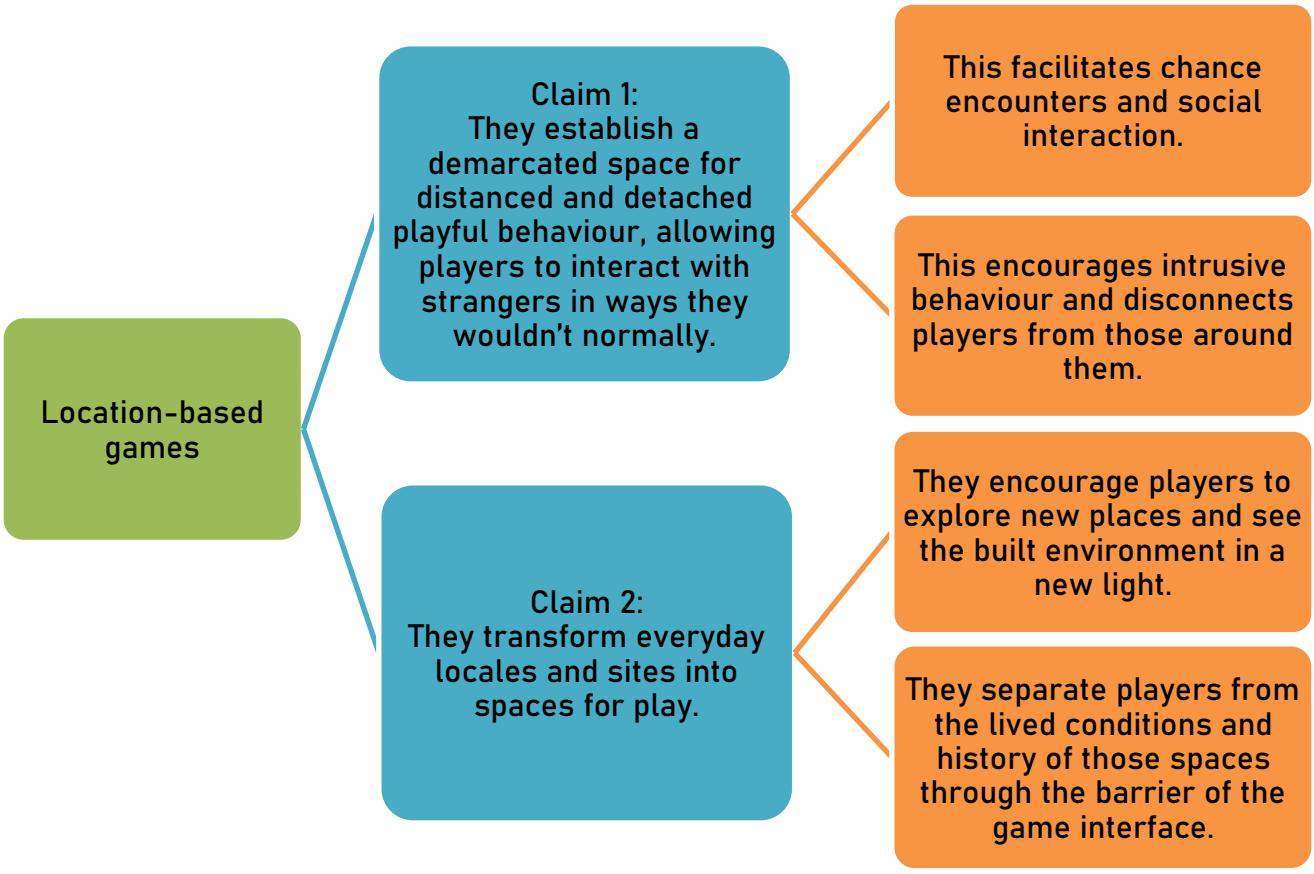
2.5.4 – Importance in this Study

In this study, I focus on the types of relationships players develop with the real-world locations in which they occupy for gameplay. These spaces form part of a player's affinity space (see Section 2.4). This section has highlighted previous literature that illustrates people-place relationships are complex and diverse but still be accounted for to understand affinity spaces (Bommarito 2014). Within this study, the relationships a player develops with locations of play is important to understand the experiences of Pokémon GO players. This is because previous studies indicate place bonding provides a benefit to an individual. For example, this could be through a sense of belonging and memory support (Lewicka 2005), to create a connection between individuals and their ancestors (Billig 2006), to connect individuals to each other to strengthen the community (Manzo and Perkins 2006), to develop a sense of independence (Grey and O'Toole 2020) and to improve quality of life (Harris et al. 1996).

While not related specifically to place bonding, I note that particularly following the immediate release of Pokémon GO, interest in location-based games arose within the medical community as the game presented itself as a method to tackle obesity due to the game's active nature (Althoff et al. 2016; Wong 2017; Yang and Liu 2017). Research indicates a range of health benefits deriving from Pokémon GO gameplay such as an increase in exercise and exercise-related activities such as dog-walking amongst players (Kogan et al. 2017). Pokémon GO players report an increase in quality of life (Barkley et al. 2017; Bonus et al. 2018; Kacmarek et al. 2017; Zach and Tussyadiah 2017), deriving from players being more physically active. Kamboj and Krishna (2017) emphasise the importance of in-game rewards as prizes or rewards for exercise as a type of positive reinforcement. I make note of these arguments here as these benefits derive from the gameplay mechanics that situate gameplay at Wayspots and real-world locations. In addition, these arguments challenge the prevailing negative perceptions of digital games within the public and the research community (Anderson and Bushman 2001; Anderson et al. 2007; Anderson et al. 2010; DeLisi et al. 2012).

I conclude the literature review by drawing upon two discursive claims pertaining to location-based games as outlined by Leorke (2019). He illustrates that the academic community is divided on how players engage with(in) spaces for play. Figure 28 summarises the arguments as discussed in this chapter.

Figure 28 - Discursive Claims



Leorke (2019, p. 5)

Leorke (2019) argues that researchers of location-based games tend to agree with the claims highlighted in blue. However, the resultant behaviour of the players is contested and therefore intellectual discussions are said to "oscillate between the positive and negative spectrums of their discursive claims" (Leorke 2019, p. 5) as shown in orange. Claim 1 asserts by demarcating a space for playful behaviour, location-based games facilitate chance encounters with others and therefore promotes social interaction (de Souza e Silva 2006, de Souza e Silva and Hjorth 2009; Vella et al. 2019) while other research indicates that this encourages intrusive behaviour and disconnects players from those around them (Farman 2012; Gazzard

2011). Claim 2 purports that through transforming real-world locations into spaces for play, this could have the positive consequence of motivating players to be explorative of new areas (Alha et al. 2019; Hamari et al. 2019; Malik et al. 2019) while other research suggests this could have the negative consequence of separating players from the spaces of play due to the barrier of the game interface (Farman 2012; Gazzard 2011, Lammes and Wilmott 2018). However, Wayspots have facilitated elements of placement attachment (Oleksy and Wnuk 2017) and place identity (Vella et al. 2019). Players have different perceptions and engagement with their built environment due to factors such as age, race and gender (Potts and Yee 2019). This study aims to contribute to these arguments and discussions, guided by the following research question: how do spaces influence the play experiences of Pokémon GO players?

I briefly comment on Niantic's philosophy in relation to the experiences of players in real-world playful spaces. Drawing from excerpts on their website (Appendix 4) and their official blog (Appendix 5), Niantic believes the technology they created has the power to change lives through the gamification of *Earth as a new game board* and the *unification of the digital and physical world*. This has been enabled, and encouraged, by the technology they have created within their suite of games. The blog outlines plans for players to nominate local businesses to become Wayspots by focusing on *meaningful and interesting locations*. The blog outlines mutual benefits for the players and local businesses. For example, they refer to creating more Wayspots as enabling a *more immersive experience* and businesses *can attract more awareness and foot traffic while creating new layers of fun engagement at their real-world locations*.

Chapter 2 - Summary

The first research question of this study spotlights the play and playfulness encouraged by the location-based Pokémon GO. In Section 2.1, I provided an overview of the rise of the genre of location-based games. This led to a discussion of the theoretical concepts of play in Section 2.2 to demonstrate the current thinking on urban play, digital play and ambient play. This study contributes to these discussions by describing the play demonstrated by players of location-based games, an emerging genre of games. The second research question explores how players experience the spaces they engage with for play. In Section 2.3, I outlined previous thinking relating to space and place to illustrate different ways in which space and place are understood, which included a discussion on how the design of the map and interface of a game potentially poses a barrier to real-world spaces. The third question of this study questions how spaces influence the experiences of Pokémon GO players. Section 2.4 introduced the theoretical concept of affinity spaces (Gee 2004). The theory of affinity spaces is used in this study to evaluate my own Pokémon GO affinity space, which enables analysis of the type of play supported by Pokémon GO, the experiences with(in) spaces and how these spaces influence Pokémon GO players. However, affinity space theory does not fully account for the sense of belongingness individuals can develop for spaces. In Section 2.5, I drew on research within urban geography and location-based games to provide an overview of the current thinking on people-place relationships and how this influences experiences with(in) real-world locations. This focused on a network of related concepts under the blanket term *place bonding*. I demonstrated that individuals develop bonds with locations, which has certain benefits to individuals.

The emergent autoethnographic methodology this study adopts, as discussed in the following chapter, illustrates how this study contributes to the discussion of location-based games not just in terms of the findings but the methodological approach to research them.

Chapter 3 – Methodology

Chapter 3 - Introduction

To approach the research questions, this study adopts an autoethnographic methodology. I begin this chapter by defining autoethnography more generally and outline my specific approach to autoethnography, which I label as Emergent Multi-Narrative Autoethnography (Section 3.1). I provide a justification for the use of autoethnography in the context of researching a location-based game (Section 3.2). Following on from Section 1.5 in Chapter 1, I discuss the incorporation of multi-narrative voices within the data (Section 3.3). I describe what data means for this research and outline the methods of data generation I used (Section 3.4). The next section considers the ethical considerations pertaining to this autoethnographic research (Section 3.5). The chapter concludes with a discussion of the data analysis processes (Section 3.6).

3.1 – Autoethnography

3.1.1 - Definition

Ellis et al. (2011) focus on the morphology of the word to define autoethnography as "an approach to research and writing that seeks to describe and systematically analyse (graphy) personal experience (auto) in order to understand cultural experience (ethno)" (p. 273). Alternatively, Chang et al. (2013) refer to autoethnography as "a research method that enables researchers to use data from their own life stories as situated in sociocultural contexts in order to gain an understanding of society through the unique lens of self" (p. 18). Self is central to autoethnography, though it is important to note there are many different ways in which autoethnography can be conducted (see Section 3.5).

Furthermore, autoethnography is as much a method of writing as a research method. It is often described as a style of "autobiographical writing" (Custer 2014, p. 1) or an "autobiographical genre of writing" (Trahar 2009, p. 7). There is no one standard way in which autoethnography should be written or one way in which data should be presented as having a set method would undermine the creativity autoethnography supports (Holman Jones and Pruyn 2018). Chang (2013) refers to a

completed or published autoethnography as the "end product" (p. 118), highlighting how the reader, in most cases, only accesses the final version of the data, though autoethnography can undergo many changes and developments throughout the writing process (see Section 3.4.2). The end product of autoethnographies can take the form of a "written report, story, or performance" (Lapadat 2017, p. 590). Furthermore, autoethnography can be written as a personal essay, a memoir, a narrative, an autoperformance, a mystory, or a testimonio (Pelias 2013, p. 385). Autoethnography could also take the form of "poetry, performative scripts, songs, films, performing arts" (Chang 2013, p. 118). This illustrates the diversity of autoethnographic research. However, Ellis et al. (2011) argue there is one feature that all autoethnographic writing must be: engaging.

> … the autoethnographer not only tries to make personal experience meaningful and cultural experience engaging, but also, by producing accessible texts, she or he may be able to reach wider and more diverse mass audiences that traditional research usually disregards, a move that can make personal and social change possible for more people…
>
> Ellis et al. (2011, p. 77)

According to Ellis et al. (2011), to be engaging is a defining characteristic of autoethnography. In Section 3.1.2, I outline my approach to data representation, which aims to provide an engaging and immersive experience for the reader.

3.1.2 – My Approach to Autoethnography

This study experiments with autoethnography as a methodology through an approach that I have labelled as Emergent Multi-Narrative Autoethnography. This new approach to autoethnography entails the inclusion of memories of my Pokémon GO gameplay experiences narrated by both myself as the author and through the voice of a fictional character, Professor Brier. The approach also incorporates the memories of other players, intertwined with my own, to create a cohesive narrative account of the experiences of a Pokémon GO player.

Furthermore, a key feature of this approach is the inclusion of images of Pokémon, screenshots of the game, and photographs of spaces for play, therefore presenting the data multimodally.

This chapter seeks to illustrate the emergence of this approach and elaborate further on this new twist to autoethnography. In Section 3.4, I explain in further detail the origins of Professor Brier and theorise the use of multi-narrative voices. In Section 3.5, I elaborate on how this approach is emergent through the memory writing and selection process. Next, in Section 3.3, I justify the use of this methodology in the context of this study.

3.2 – Justification

On the study of games, some researchers such as Leorke (2019) advocate the use of ethnographic methodologies. He critiques the quantitative research methods predominantly used on the research of games and states it is only when we begin "employing ethnographic techniques … alongside an analysis of the scholarly literature" (p. 8) that a more accurate evaluation of videogames will prevail. Furthermore, Cuttell (2015) promotes the participatory research method when studying videogames. Speaking of games, Cuttell (2015) proposes:

> In order to better understand and theorise this process of engagement, one method which enables us to get critical purchase on this relationship is to practise it as a subject.
>
> Cuttell (2015, p. 56)

Having used the participatory research method for her own research, Cuttell (2015) comments on the benefit of the researcher's insider position. She claims this is "essential for understanding videogames by some members of the gaming community, but it also provides insight into the experience of gaming" (Cuttell 2015, p. 57). In the context of this study, this methodology allows me to acknowledge and utilise the insider knowledge of Pokémon GO that I possess. I am an experienced

Pokémon GO player who has played daily since the release of the game in the summer of 2016. It is from insider knowledge that autoethnographers use their personal experiences to create "thick descriptions" (Geertz 1973) of experiences as means to understand and analyse those experiences. Cuttell (2015) emphasises it is through gameplay that a researcher can really understand a game and its mechanics. The understanding I have of the gameplay mechanics of Pokémon GO derives from hours of committed gameplay, which has the potential to deepen my understanding of the role of locations within the game. Furthermore, I have the appropriate gaming vocabulary to articulate these meaningfully with other players and within this thesis (see Section 1.5.2 for my positionality with the Pokémon franchise).

There are criticisms of the immersive method. Cuttell (2015) outlines that historically, it was "argued by some that a media user cannot be immersed in a text whilst also maintaining the distance necessary for critical reflection" (p. 61). However, this is addressed within this thesis, which uses multi narrative voices to provide distance for reflective and analytical comments (see Section 3.6 on how data in this study is analysed and how the methodological approach is evaluated).

The decision to adopt an autoethnographic approach to study the location-based game Pokémon GO stemmed initially from my desire to avoid quantitative data analysis (Caci et al. 2018; Oleksy and Wnuk 2017) and put the voice of Pokémon GO players at the centre of the research (Vella et al. 2019). As a writer and researcher, autoethnography provides a framework to simultaneously express my enjoyment playing Pokémon GO and contribute to the discussion relating to location-based games and people-place relationships. Furthermore, it is my enjoyment of Pokémon GO that gives me the critical insight into the types of play and playfulness situated within real-world locations that so far has been absent in other studies. Therefore, the use of the autoethnographic methodology I have adopted builds on the current body of research by offering an alternative approach to understanding and representing players' experiences. On a personal note, I have an attraction to autoethnography – it allows freedom and creativity. This freedom is incredibly

attractive to me as an English teacher who enjoys and appreciates creative writing. I aim to craft this thesis into a unique autoethnography that is engaging and enjoyable as opposed to boring as some critiques of autoethnography have suggested (Van Maanen 1988) and has the power to connect the reader to the Pokémon universe in order to "understand a way of life" (Ellis and Bochner 2000, p. 737). One way this thesis aims to achieve this is through the incorporation of the multi-narrative voice approach.

3.3 – Multi-Narrative Voices

3.3.1 – An Experimental Approach

The decision to incorporate multi-narrative voices into the text was inspired by other doctoral researchers who have used similar playful and experimental approaches within their theses such as Bailey (2017), who was himself inspired by Plowman and Stephen (2008). Bailey (2017) uses comic strips in coordination with the text. This is exemplified in the abstract of his paper (Figure 29 and 30).

Figure 29 - Bailey (2017, p. ii) Abstract (Text)

This qualitative study seeks to explore and illuminate the lived experiences of a group of ten- and eleven-year-old children, playing in and around Minecraft during a year-long after-school club.

Figure 30 - Bailey (2017, p. iii) Abstract (Comic)

The same text appears in both formats, offering the reader an alternative way to engage with the study. This approach is not deployed throughout the thesis, rather it is tactfully and purposely used to present data and to exemplify points made within the text. Bailey (2017) argues that comic strips offered flexibility in data representation that static text did not and this was particularly valuable when presenting data on the embodied nature of the spaces he was researching. Furthermore, comics enabled participant involvement through participant feedback and co-creation of comics.

For me, the comic strips used by Bailey (2017) transformed the reading process. They offered an immersive experience. As a reader, I felt like I was invited into the Minecraft club as a valued member. The connection I developed for the club is the inspiration behind my motivation to immerse the reader into the Pokémon universe in this thesis. The comic strip approach is adopted by other scholars such as Sousanis (2015) who uses comic strips to exemplify the possibilities and potential of visual data representation. A recognition of creative theses has been enabled by educational researchers such as Elliot Eisner who has argued since the 1990s to make it permissible to explore new forms of inquiry to broaden how the world is understood (Saks 1996).

3.3.2 – Heteroglossia

The multi-narrative approach adopted within this thesis is underpinned by the work of Mikhail Bakhtin (1895-1975). To model style-shifting, Bell (2007) highlights the importance of three related concepts within the writings of Bakhtin: 1) *centripetal and centrifugal language forces*, 2) *heteroglossia and multiple voicing*, and 3) *addressivity and response*. This section focuses on *heteroglossia,* which Bakhtin (1953) defines as "another's speech in another's language" (p. 324). Bakhtin uses the term *heteroglossia* to argue that languages are heterogeneous and socially stratified:

> The internal stratification of any single national language into social dialects, characteristic group behaviour, professional jargons, generic languages, languages of generations and age groups, tendentious languages, […] – this internal stratification [is] present in every language at any given moment of its historical existence.
>
> Bakhtin (1935/1981, p. 262)

Bakhtin applies the concept of heteroglossia to critique literary work, which he argues is essential to determine artistic value. Heteroglossia is applied in the same way in recent studies (for example, see Ardrey 2017; Osman et al. 2019). The work of Bakhtin is also prevalent within language learning studies as heteroglossia simultaneously embodies both monolingual and multilingual forms (Bailey 2007). This allows for theorising of social and historical contexts of utterances (Creese and Blackledge 2010; Harvey 2017).

The emergence of my own distinct voices became apparent to me within notes and the first drafts of autoethnographic data (see Section 3.4.3). As the roles of the voices formalised, the multiple narrative voices developed into conscious constructs. The multiple voices were no longer hidden between words, sentences, and paragraphs. The acceptance of the voices within the data was celebrated upon both finalising autoethnography as the methodology and recognising theses have the potential to adopt experimental approaches (see Section 3.3.1). I make a clear distinction between the voice of myself as the author and the voice of myself as Professor Brier, through the linguistic and stylistic choices (see Section 3.3.3). Interestingly, according to Bakhtin (1953), each unique voice "has a historical meaning attached to it since heteroglossia also refers to past and present meanings co-existing in the same language" (p. 55). Analysis of the multi-narrative voices may provide insight into myself, which is important within an autoethnographic inquiry (see Section 3.6 on data analysis).

3.3.3 – Professor Brier

Professor Brier a fictionalised character who has a specific role within the thesis. Pokémon GO has complicated gameplay mechanics, which requires Pokémon-specific jargon to understand. While compiling the autoethnographic data, it became apparent the reader needed to have at least a rudimentary understanding of the Pokémon universe to engage with the text (see Section 3.4.3). Professor Brier bridges the gap between the autoethnographic data and the description of the gameplay mechanics. The incorporation of Professor Brier's sections allows gameplay mechanics to be discussed without interrupting the flow of the autoethnographic accounts of Pokémon GO gameplay. Alternative methods were explored, such as using appendices, but the tutorials are a central element to the autoethnography and any other method of presenting the tutorials outside the main body of text diminished their significance. In addition to tutorials, some of my gameplay experiences are fully narrated by Professor Brier, offering a third person perspective of my experiences playing Pokémon GO. The alternative approach provides the opportunity to reflect on my gameplay experiences in an organised and creative method and maintain the distance for critical reflection (Cuttell 2015, p. 61).

The language used by Professor Brier is carefully chosen. His writing style is strongly influenced by the style of speech of Professor Oak, who is the main professor from the Kanto region of the Pokémon world (see Appendix 6). Figure 31 demonstrates the style of Professor Oak:

Figure 31 – Professor Oak
Darkmurkrow (2011)

While the player of *Pokémon Blue* in 1999 would have had Professor Oak as their mentor or guide, the reader of this thesis has Professor Brier as their guide. The language and stylistic features of Professor Brier mirrors those of Professor Oak so a reader unfamiliar with Pokémon can experience the style, tone, and register of

the game themselves and gain insight into its appeal. When developing Professor Brier as a narrator for this thesis, his writing style became characterised by the following:

- An increased use of the word *let's*
- An increased use of exclamation marks
- An increased use of positive language, usually framed with *how* e.g. *how remarkable!*
- An increased use of short sentences
- An increased use of imperative verbs
- Use of second person as a form of direct address
- Use of Pokémon puns and catchphrases e.g. *as blind as a Zubat*

Stylistically, the fonts used in the text clearly demarcate the narrative voices. The current font (Bahnschrift) is the main font of the thesis. In the data episodes, the same font is used for my voice and **Aharoni** is used for Professor Brier. Memories from other players use *Avenir Next LT Pro* in italics. The distinction provides a clear cue for the reader that there has been a change in voice. In some cases, additional signals are used, such as speech bubbles and boxes. I aim to be clear throughout the text of the identity of the narrator through the linguistic and stylistic choices.

While Professor Brier takes inspiration from Professor Oak in some ways, he deviates in others. Professor Brier enjoys quizzing Pokémon trainers on their Pokémon knowledge. This personality trait, likely echoing my background as a teacher, manifests as mini quizzes in the text. Within the main series games and the Pokémon anime, mini quizzes are frequently used so this serves as an additional way to immerse the reader deeper into the Pokémon universe.

Figure 32 – Professor Brier

Nintendo (2019)

The images used in this thesis are official artwork and anime screenshots of *Professor Cerise*, a Pokémon Professor who has a minor role in the anime (Figure 32). I chose the model of Professor Cerise as he is a male and compared to other professors in the main series game, he is relatively unknown so even readers with specialist Pokémon knowledge might not know the character. Using an existing minor character was necessary as I do not have the graphic design ability to design and create my own avatar and I did not want to select an existing character who was easily recognisable.

Professor Brier intentionally assumes the reader has no or little prior knowledge of Pokémon. Many games, especially sequels, assume no prior knowledge to support new players. The beginning of every new Pokémon game introduces the player to the Pokémon universe for the first time by the professor associated with the region in the game. In Pokémon Sword and Shield, the latest editions to the main series games, the Pokémon universe is introduced through Chairman Rose, who is a prominent main character (Figure 33).

Figure 33 – Chairman Rose
HeroVoltsy (2019)

I acknowledge this thesis might not be the reader's first entry into the Pokémon universe, which potentially renders some of Professor Brier's tutorials less useful. However, Professor Brier's sections are core to the thesis even if the reader is a fellow *Pokémaniac*. These sections contribute to the playful approach to narrative voices and serve a vital role in the discussion of experiences of Pokémon GO players with(in) spaces for play.

This section has described this study's approach to data representation within this thesis. The narration of the autoethnographic data is shared by me as the author and Professor Brier. The Professor is a fictional character devised for the purpose of this thesis to guide the reader through the more technical elements of the game and to provide an engaging reading experience for the reader. I draw on the work of Bakhtin and heteroglossia as a means of understanding how multi-narrative voices are acknowledged and incorporated within the text. Next, I outline the different types of autoethnographic data in this study, how I collected the data, and the process I adopted to organise the autoethnographic episodes.

3.4 – Data

3.4.1 – Types of Data

My past and present Pokémon GO gameplay experiences were the primary data within this study. I divided my gameplay experiences as shown in Figure 34:

Figure 34 - Division of Gameplay Experiences

While autoethnographic research can be informed from many sources, my personal memories constitute the majority of the autoethnographic data, which is a common approach across autoethnographic studies (Vickers 2007). Giorgio (2013) argues "as autoethnographers, we use memory for much of our data; through memory, we ground our analysis; our memories inform our epistemologies and methodologies" (p. 406). In addition, Chapter 2 highlighted how memories serve a vital role in the formation of place identity (Vella et al. 2019).

As an autoethnography, the majority of gameplay experiences presented throughout this research are my own. However, gameplay experiences of other players were included within the research as Pokémon GO is a multi-player game and it would be impossible not to include how my experiences related to other players. Furthermore, other people were involved in the research as autoethnographers "must consider ways others may experience similar epiphanies" (Ellis et al. 2011, p. 276). This is important as people experience games differently and therefore including other players' experiences enable me to better understand my own experiences (see Section 3.5 on ethics).

3.4.2 – Data Generation

3.4.2.a – Memory Selection

Having over four years of Pokémon GO gameplay memories, it became necessary to devise a strategy to select the most appropriate memories for the thesis. My process included drafting a timeline from the release of Pokémon GO in July 2016 to September 2020 in my thesis journal (Figure 35)

Figure 35 - Thesis Journal

The timeline illustrated major Pokémon GO events such as GO Fest (see Chapter 6) and life events such as the beginning of a new employment or relationship, which helped provide context. On the timeline, I plotted a series of my Pokémon GO memories. Whenever I remembered a particular gameplay event, an encounter with another player or the capture of a rare Pokémon, I annotated this on my timeline. At this stage, I included all memories. Over a period of two months, I had annotated approximately 70 different Pokémon GO gameplay memories on the timeline.

When choosing the memories to include in this study, I selected a range of memories that I felt were most memorable, whilst also ensuring I included memories that represented a range of different gameplay events from different points in time. This would ensure the reader was exposed to different elements of Pokémon GO gameplay and observe my progression as a Pokémon GO player. After the selection process, which was not final as there would be a few amendments as

the research progressed, I wrote freely. In some instances, I typed my reflections in one sitting. On other occasions, I made notes in my thesis journal over a period of time, which I then crafted into a coherent narrative. The memory selection and crafting process took place over the span of a year (August 2019 to August 2020). Recalling memories in this way is supported by Chang (2013), who highlights "recalling is a free-spirited way of bringing out memories about critical events, people, place, behaviours, talks, thoughts, perspectives, opinions, and emotions pertaining to the research topic" (p. 113).

3.4.2.b – Memories From Other Players

The process I adopted to incorporate other players' memories was different. Here, I describe the methods I used to include other players and the consent process and ethical considerations are outlined in Section 3.5.1. At real-world locations, I involved other players using a contact card (Figure 36). I opted to use contact cards as they could be easily distributed to players without disturbing gameplay. This was crucial for me to ensure gameplay was not negatively affected by the research.

Figure 36 - Contact Card

Front:

Back:

The language on the contact card positioned participant involvement in this research as Field Research, akin to tasks featured in the game itself. The task was simple: *describe your favourite Pokémon GO memory*. To encourage players to be comfortable sharing the amount of information they wish to, the task was written in

simple language and the verb *describe* meant participants could choose how much information they wished to share. The University of Sheffield logo showed it has institution approval. The QR code provided the reader with additional information about the research. There were also links to my social media, on which further information about the research was available and this provided an insight into my identity within the Pokémon GO community. The front of the card included a QR code of my Pokémon GO friend code so it was possible for me to connect with participants within the game. The stylistic choices and Professor Brier are discussed in Section 3.3.3.

Through this process, thirteen players became involved with the research. The data of seven players were selected for the final version (Figure 37). Choosing the final seven was based on the memories that were the most detailed and those that could be integrated with my own memories, which would provide a smoother flow for the reader.

Figure 37 – Names of Participants

- Bonnie
- Cilan
- Clemont
- Max
- Dawn
- Iris
- James

While the contact card allowed data to be collected within real-world locations of gameplay, I also interacted with other players online. Dialogue from the social media platform Discord is also included within the scope of analysis, included with the episodes at multiple points.

The memories of other players are not exact recounts and the text does not represent their stories verbatim. I chose not to record players and I did not maintain extensive notes of conversations I had at the point in which the conversations were taking place in order to maintain Pokémon GO gameplay. Therefore, players' stories are based on my memory. I wrote the extracts based on memory and so they are my representations of the experiences. Furthermore, the

names given to participants are pseudonyms, choosing names of main characters from the Pokémon anime.

This approach has been adopted by other autoethnographers such as Holman Jones (1999), who uses fictionalised conversations with Billie Holliday. Furthermore, Davis and Warren-Findlow (2011) explain that fictional narrative autoethnography "extends the concept of voice" (p. 564), which is important for this study. One method they use is the inclusion of the fictional character Nancy Drew within their autoethnographic accounts in order "to examine and resist the traditional voice in favour of a voice reflecting other ways of thinking and knowing" (Davis and Warren-Findlow 2011, p. 564). Their approach to fictionalisation within the data also included converting verbatim dialogue from participants into poetry, edited or enhanced narratives, combining characters, and creating additional scenes. They argue the purpose was to ensure there was a coherent story that flowed naturally between accounts. Within their autoethnography, they argued they "stayed true to what [they] believed the characters were thinking and the meanings they attached to the experience based on [the] analysis of [the] data" (Davis and Warren-Findlow 2011, p. 565). All autoethnographic accounts represent my version of real-life events. I have not deliberately exaggerated or embellished any particular event. At all times, the text aims to represent events that actually happened.

3.4.3 – Formation of Episodes

Upon selecting my own memories (Section 3.4.2.a) and memories of other players (Section 3.4.2.b), the data was grouped into 'episodes' based on a common theme. The episode titles and a timestamp are listed in Appendix 7.

Episodes 1-4 are composed of memories. The memories were grouped mainly in chronological order to form an episode as this provided a clear flow for the reader and I believed most effectively conveyed my experiences as a Pokémon GO player. Memories of other players were incorporated within my memories, meaning there is not a discrete section or episode of other players' memories. As discussed in

Section 3.3, following the memory selection process, it was apparent certain elements of the gameplay required some explanation to the reader. These would provide the context for the main autoethnographic episodes. According to Goodson (2006), to develop an understanding of learning opportunities, a clear description of the context is required. This is enabled in this study through Professor Brier. For example, if Episode 1.f related to attending a Raid battle, the reader would need to know what a Raid battle entailed. Otherwise, the reader would need to continuously rely on the context. This is not ideal as it could diminish the enjoyment of the text or disturb the narrative of the memory. The context might not be enough to understand the mechanic, especially for readers with no prior experience of Pokémon or location-based games. Therefore, incorporated within the episodes are tutorial sections written by Professor Brier to assist the reader with more technical elements of the gameplay. The sections narrated by Professor Brier are highlighted on the list of memories in Appendix 7.

Figure 34 indicates my intention to record a series of gameplay statistics. This was to establish my gameplay trends to provide insight into motivation and the transformation of locations into spaces of play. This mirrored the approach of Oleksy and Wnuk (2017) who aimed to establish a connection between place attachment and gameplay trends. This data was collected over a five-month period from May 2019 to September 2019. This entailed recording my progress once a month against various gameplay elements such as the number of Pokémon caught, the number of PokéStops visited and my progress against various badges and medals within the game. The five-month window covered the summer period, which is more suitable for outdoor play and coincided with significant gameplay events such as GO Fest (see Chapter 6). This data was also recorded in my journal each month (Figure 35). Ultimately, this data was not included in the scope for analysis due to space limitations. However, the data is provided in Appendix 12, 13, 14 and 15.

This section has illustrated how data for this study mainly derived from my own memories, though memories from others are included to enrich the description of my own experiences. I have scrutinised how the autoethnographic data was

collected and organised, including the supporting data of other players. Data generation culminated in the formation of four autoethnographic episodes (Appendix 7).

3.5 - Ethics

3.5.1 – Ethics and Autoethnography

While the primary data for the research derived from myself as the author, as other players were implicated (see Section 3.4.2), it was necessary to devise a consent process. From an ethical standpoint, the consent process within autoethnographic research varies widely for two main reasons. Firstly, Winkler (2018) states it is tempting to argue that ethical considerations "exclusively apply" (p. 240) to the researcher as they are the only participant of the study. However, this is not the case for this research as I intend to allow participants to be included and share their memories and experiences. Secondly, consent must also be considered as "the text of the self is also, always, simultaneously, a text that brings others into being, too" (Gannon 2013, p. 230). This suggests however one presents oneself, whether inadvertently or not, others will inevitably be involved. Therefore, those presented should be consented on how they are presented and if they want to be presented at all.

Tolich (2010) is dissatisfied with the number of researchers who do not pay close enough attention to the consent process of autoethnographic research since it is a misconception only the author is implicated. Winkler (2018) suggests the researcher should contact everyone who might become involved in an autoethnographic research to seek informed consent, including seeking consent retrospectively. However, some researchers are sceptical of the consent process in autoethnography research. Hernandez and Ngunjiri (2013) do not argue against consent but do claim "participants cannot be fully informed because also we are not fully sure what we will do with the material, what we will write when we write about their stories and what effects our text will have" (p. 276). Furthermore, in ongoing autoethnographic research, gaining consent just once might not be sufficient. Ellis (2007) suggests seeking consent at multiple stages of the research

in order to ensure "participants still want to be part of the project" (p. 24). For this research, I felt this was not necessary as I did not intend to work with individual participants over a long period of time but I was prepared to gain consent multiple times if deemed necessary as the research progressed.

3.5.2 – Consent Process

Scenarios 1-4 below illustrate how I interacted with players in order to ensure I always operated ethically.

Scenario 1 – Face-to face

I handed over a contact card and did not interact with the player regarding the research. Responses via social media were posts within the public domain and so consent was assumed. While I received no email responses, if I had and I wanted to use any responses within this research, consent would be obtained remotely.

Scenario 2 – Face-to-face

I directly engaged with participants regarding the research, which could be after giving out a contact card as this initiated a conversation. In these instances, players shared their memories face-to-face directly with me. I introduced myself as a fellow player and researcher. I explained the research and ensured all participants provided consent before any memories were shared.

Scenario 3 – Face-to-face

Gaining consent from individuals were obtained retrospectively to prevent interruptions in gameplay and disruptions in the enjoyment of the game. As a player, any other player could talk to me about their experiences before I had the chance to explain my position as a researcher. Conversations regarding Pokémon GO memories are common as players are likely to talk about the game as they are playing it. There might not be an appropriate point in the very early stages of the conversation to introduce my research. At the earliest opportunity, I introduced myself as a researcher and obtained consent. If consent was not obtained, this data did not inform my research.

Scenario 4 – Online

In the online setting, I invited players into a private group on the social media platform Discord. Participants were made aware of the context of the study and consent was obtained before I allowed entry into the channel. The private group consisted of a range of players who were interested in Pokémon research, various individuals who I had encountered in my home city since the release of Pokémon GO.

As these scenarios demonstrate, my approach entailed not actively recruiting other players. Within the autoethnographic accounts, I do not include dialogue pertaining to the consent process with participants. This is to maintain a flow within the narrative and to represent data clearly. However, consent was obtained in every instance, even though this might not be fully indicated within the text. The appendix includes the support documents such as The University of Sheffield approval letter (Appendix 8), the consent form used (Appendix 9), and the research information sheet (Appendix 10).

3.5.3 – Considerations and Issues

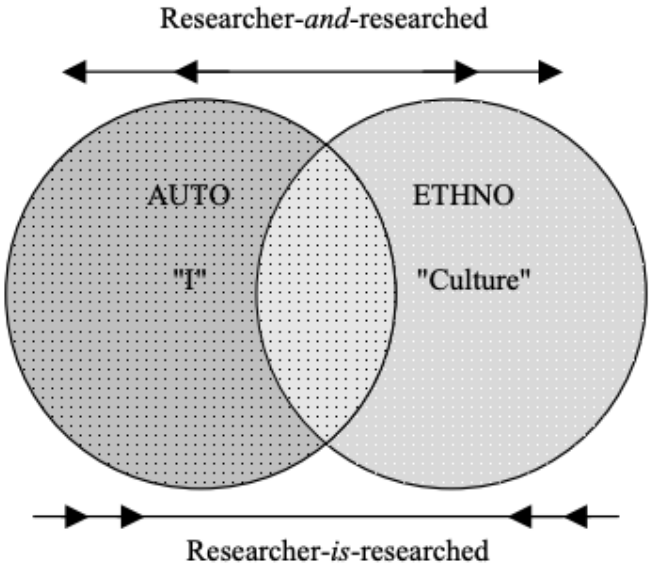
As an emergent autoethnography, ethical considerations emerged early in the development of the research. Within the University's ethical approval process, I found it difficult to fully articulate how I was addressing ethical considerations. Winkler (2018) encapsulates this struggle:

> From my experience and from what I have read so far, whatever autoethnographers do in terms of addressing ethical concerns within their research, there is no simple solution, no one best way, and definitely no holy grail available.
>
> Winkler (2018, p. 242)

Kubanyiova (2008) refers to a "can of ethical worms" (p. 515) that can be opened when undertaking an ethnographic study. In this section, I address various ethical issues that are raised in this study involving gameplay of a location-based game.

The writer or researcher's personal experiences are at the heart of autoethnography and therefore it is important to balance the focus on self. Some autoethnographers have been accused of writing with a misplaced emphasis of self. Roth (2005) critiques autoethnography as there is a danger of the text having "little to do with the *ethno* and everything with the *auto*" (italics added, p. 5), a concern shared by Atkinson (1997) and Coffey (1999). Now autoethnography is more established as a methodology, some work has been undertaken to map the relationship between the auto and ethno, such as Doloriert and Sambrook (2009), who developed a continuum between the auto and ethno elements of autoethnography (Figure 38).

Figure 38 - Perspectives of Autoethnography



Doloriert and Sambrook (2009, p. 30, Figure 1)

Researchers orienting closer to the autobiographic point on the scale focus on self-narration whilst at the ethnographic end, researchers place more emphasis on the cultural interpretation of self. The ethical issue here is where should an autoethnographer fall on each continuum. Autoethnographic research "requires balancing the auto and the ethno to the extent that there is sufficient emphasis on the cultural settings to enable a research or a text to pass as autoethnography" (Winkler 2018, p. 237). When studying videogames, Cuttell (2015) believes:

> The inclusion of autobiographical elements is necessary in the study of videogames because their "gameness" (Juul 2001) requires a practical, "hands-on" approach; that is, one cannot research the game as an object without interacting with it (as opposed to research which focuses on the player or the surrounding gamer culture).
>
> Cuttell (2015, p. 64)

The boundary between autobiography, autoethnography and ethnography has been described as "messy" (Lapadat 2017, p. 590) as each end of the continuum provides a certain vantage point for the reader. Winkler (2018) suggests self-reflection is important to determine the balance of representation of self. In this study,

reflection was integral to the formation of the episodes (see Section 3.4.3). Episodes were designed to accommodate a combination of memories, which would accurately represent the gameplay culture of Pokémon GO.

The use of memories can pose an ethical problem. Can the self and culture be represented by memories alone? This questions the legitimacy of autoethnography as a research method. Winkler (2018) believes memories are equal to other forms of data and they "constitute data that should be acknowledged as equally valuable to written notes, recorded material, or otherwise collected information" (Winkler 2018, p. 238). While Winkler (2018) disagrees with the need to include direct entries from diaries as data because this potentially violates "the ontological and epistemological assumptions of autoethnographic research" (p. 238) he does include direct entries where appropriate. This study does not include direct entries from my thesis journal (Figure 35) as the data was fictionalised as narratives (see Section 3.4.3).

However, the process of fictionalisation of memories poses an ethical concern in terms of representation of participants. Drawing on several studies, Caine et al. (2017) identify three purposes of fictionalisation. They find previous studies use fictionalisation as a means to anonymise participants and to maintain distance for critical reflection. However, Caine et al. (2017) note that some studies use fictionalisation to create an engaging narrative enquiry, corresponding with the aim of fictionalisation in this study, as discussed in Section 3.1 and 3.4.2. They suggest fictionalisation for this purpose reflects "an extensive engagement with participants and considers experiences and lives as always in the making" (Caine et al. 2017, p. 220), which represents possibilities as opposed to harm.

Despite this research using an autoethnographic approach where the primary data was my personal gameplay experiences, Ellis et al. (2011) make it clear that "researchers do not exist in isolation" (p. 281). Researchers belong to networks that include "friends and relatives, partners and children, co-workers and students, and we work in universities and research facilities" (Ellis et al. 2011, p. 281). The

relationship between the researcher and this network of individuals should be considered from an ethical standpoint. This is often labelled as *relational ethics*. Ellis et al. (2011) summarise:

> In using personal experience, autoethnographers not only implicate themselves with their work, but also close, intimate others (Adams 2006; Etherington 2007; Trahar 2009). For instance, if a son tells a story that mentions his mother, she is implicated by what he says; it is difficult to mask his mother without altering the meaning and purpose of the story.
>
> Ellis et al. (2011, p. 281)

Because the subject of Pokémon GO is not controversial or sensitive (see Custer 2014), I did not anticipate a situation where my work on Pokémon GO would directly or indirectly implicate an individual or institution in a negative way. Prior to data generation, I acknowledged current players could have shared information with me as the researcher that may be cause for concern or pose a safeguarding issue. However, this did not become an issue in this study

Moreover, the notion of whether the study of self should be done alone or collaboratively is an ethical consideration. Most autoethnographic work has been conducted and written alone, but "there are more and more proponents of a more collaborative approach to autoethnography" (Winkler 2018, p. 238). There are multiple approaches to autoethnography:

- *collaborative autoethnography* – Chang et al. (2013)
- *duoethnography* – Norris et al. (2012)
- *co-constructed autoethnography* - Ellis (2007)
- *coautoethnography* - Crawley and Husakouskaya (2013)
- *community ethnography* – Ferreira and Isbell (2016)

Lapadat (2017) describes single-authored autoethnographies as suffering from "scope constraints, in that the potential pool of participants and research foci is limited" (p. 589). Conducting autoethnography alone has caused some issues for

researchers such as Winkler (2018), who usually works alone but when challenged by a colleague at a conference, he felt like it was an attack against the credibility of his work. I acknowledge there are alternative approaches to data generation and representation but given the research timescale, the requirements of the University for doctoral degree thesis submissions, and my experience within ethnographic research, the approach I adopted was the most appropriate to meet the aims of this research.

When in the process of generating data, it was important for me not to disturb the gameplay of other players in order to recruit them for this study. In order to address this, I created the contact card (Figure 36), which would allow me to share my project with others while maintaining play. Before the process of generating data, I carefully considered the different scenarios that could manifest when interacting with other players (see Section 3.5.2). By approaching players, I could inform them of my research and offer a range of ways to become involved in a way most suitable for them if they wished to do so. However, within Scenario 3, the distinction between me as a researcher and me as a Pokémon GO player becomes blurred as talking to other players did not always contribute to data generation. It was not possible to foresee all potential scenarios. Ultimately, with the intention of being entirely overt, I intended to provide opportunities for anyone I interacted with to be involved, or not involved, in the research and I obtained consent where needed. This meant the purpose of gaining consent was to allow me to draw on their personal experiences, which could enrich the description of my own experiences. I do not implicate any specific individual in the research who has not sought to be involved or given consent.

3.6 – Data Analysis

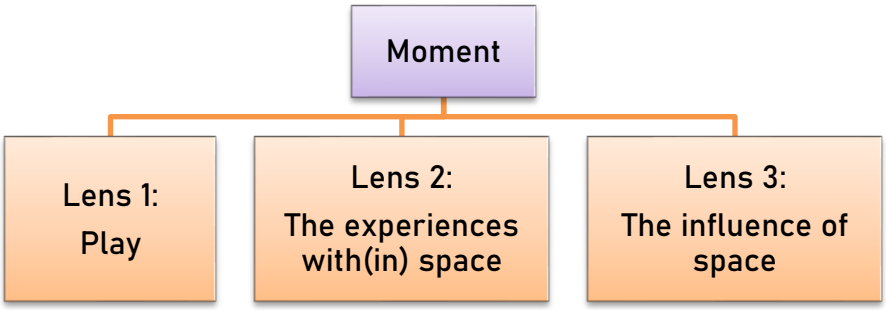
Within the timeline of this project, there was not a discrete data analysis stage. Analysis of data began as the autoethnographic accounts began to form. This corresponds to the experiences of other autoethnographers such as Lapadat (2009) who argues data analysis begins as the autoethnographer selects memories and decides the format and the order of them within the completed autoethnography. Therefore, analysis of data is interconnected with the production of data. This influenced the way in which this thesis organises the analysis and discussion of data. I adopt a micro-review approach (Chang et al. 2013), which entails providing an overview and discussion section for each episode. This allows data analysis to connect closely with the data in relation to the types of play and playfulness and the experiences of Pokémon GO players within spaces for play. The discussion sections within Chapter 8 serve to make connections between the episodes and summarise the key findings of this study.

This study draws on Wei (2011) as a means to analyse the autoethnographic data in Chapters 4-7. In the context of translanguaging, Wei (2011) seeks to focus on critical and creative moments on an individual's actions through *moment analysis*, which he defines as "a point in or a period of time which has outstanding significance" (p. 1224). While moment analysis was conceptualised as a means to analyse moments of translanguaging as demonstrated by Bradley (2018), the framework benefits this study of playful spaces. The memories selected for this study (see Appendix 7) were selected due to their personal significance (see Section 3.4). Wei (2011) explains moment analysis requires focus on "the spur-of-the-moment actions, what prompted such actions and the consequences of such moments including the reactions by other people" (p. 1224). This is important in the context of this study, which aims to understand the experience spaces for play – what play happens in those moments when players occupy or co-occupy spaces for play. Moment analysis requires data from multiple sources and of multiple types as well as metacommentary on the interaction. Data in this study contains memories from different Pokémon GO players (see Section 3.4.2.b), in different narrative forms (see Section 3.3.3), which includes commentary of Pokémon GO from different

perspectives. While Wei (2011) focuses on the analysis of moments, I draw from Chesworth (2019) who uses lens to focus upon one episode of play. Through applying different lenses (policy directives, peer cultures and new materialist theory), Chesworth (2019) aims to indicate "how shifting perspectives change what is noticed, what is brought to the foreground and what is ignored or invisible" (p. 5). This approach builds on understanding of the ways in which children's play interests are viewed.

In this study, I analyse the data by homing in on various specific moments within the text (Wei 2011). For each moment, I apply different lenses based on the research questions of this study (Figure 39). Lens 1 focuses on play, discussing what types of play and playfulness are supported by Pokémon GO. Lens 2 explores how play shapes Pokémon GO players' experiences of the spaces they occupy for play. Lens 3 then considers how spaces influence the experiences of Pokémon GO players. How these lenses are applied is summarised within a table in each discussion chapter.

Figure 39 - Structure of Analysis



While I draw from Wei (2011) and Chesworth (2019) as a means to understand the data within the discussion sections following each episode, I use the goals of autoethnography conceived by Adams, Holman Jones and Ellis (2015) to evaluate the autoethnographic approach adopted within this study in Chapter 8. They devise four goals for assessing the value and success of autoethnography, which are 1) making contributions to knowledge, 2) valuing the personal and experiential, 3) demonstrating the power, craft, and responsibilities of stories and storytelling, and

4) taking a relationally responsible approach to research practice and representation (Adams et al. 2015, p. 102). Using this model provides structure for critical evaluation of autoethnography and its application in this study.

Chapter 3 - Summary

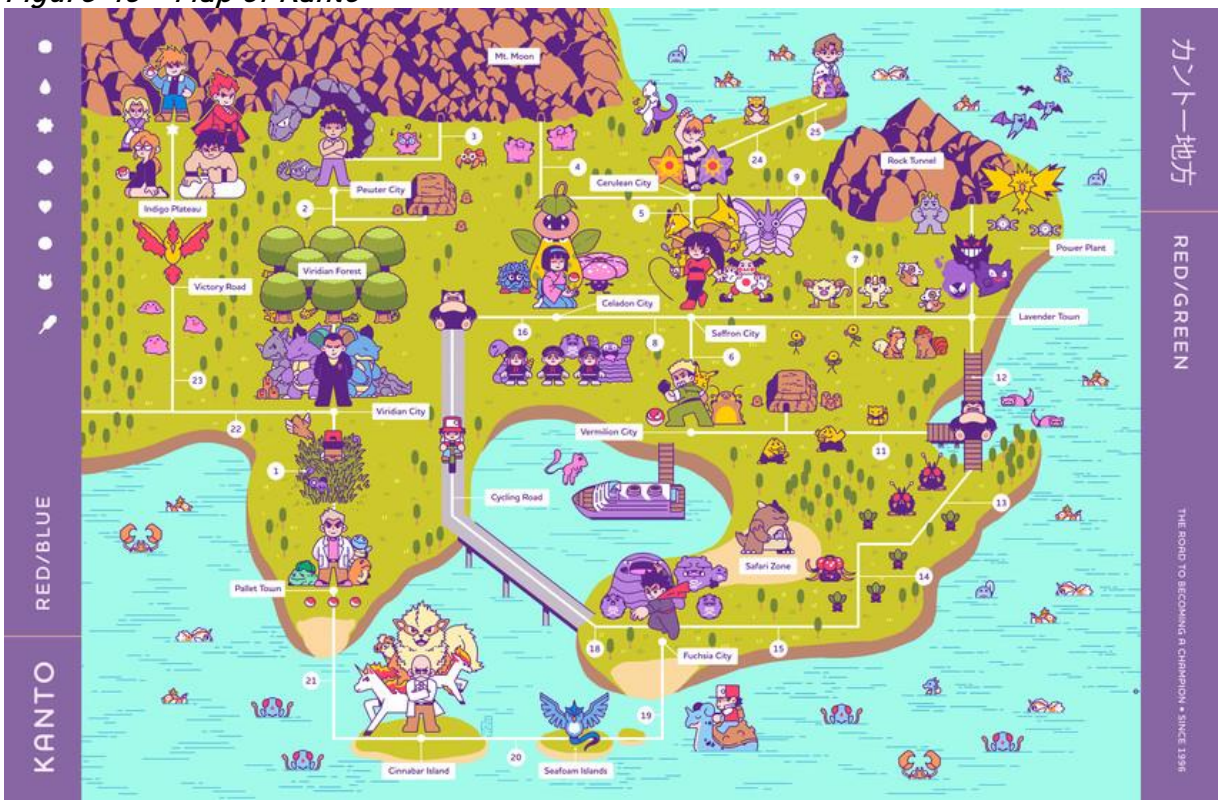
This chapter has sought to illustrate my approach to autoethnography, which aims to contribute to the prevailing body of research on location-based games such as Pokémon GO in an engaging way. I summarise this chapter with some reflective comments. Adopting this methodological approach marked a turning point for me as a researcher. I no longer identify just as a researcher. I now have a specific role: *autoethnographer*. This is an incredibly exciting prospect for me. I feel like I have only scratched the surface of the history of autoethnography, its applications across different academic fields, and of particular interest to me, the ethical challenges it poses. Lapadat (2017) believes autoethnography "aims to make a difference" (p. 592). I hear this a lot in working in education and it has become somewhat clichéd. Nonetheless, I wanted to include this quote as ultimately this is the reason I am conducting doctoral research. I believe using autoethnography will give me the tools and the opportunity to attain the greatest contribution to understanding of the experiences of Pokémon GO players while taking the reader on a playful adventure.

The following chapters contain the autoethnographic data of this study, divided into four episodes (see Appendix 7 for a full list of the memories and the episode titles). Each episode forms its own chapter, centred on a particular theme. Episode 1 narrates some of my early Pokémon GO experiences. Episode 2 recounts how I expanded my reach into the online Pokémon GO community. Episode 3 takes place in Dortmund, Germany, following the acquisition of tickets to a Pokémon GO event being held there. Episode 4 details the moment I reached the highest level in the game, which unlocked additional features. The reader should expect changes in the tone, style and format of the writing. This intentional shift is a part of the autoethnographic methodology outlined in Section 3.3. Writing moves away from

traditional academic writing to my own thoughts and observations, inviting the reader to see the world how I do. On a personal note, I hope the reader enjoys the stories outlined in these chapters as much as I have enjoyed writing them.

Chapter 4 – Episode 1: A New Journey

Figure 40 - Map of Kanto



Episode 1 - Introduction

When the game was first released, Pokémon GO transported me from 2016 all the way back to 1999 when I began my first ever Pokémon adventure, a playthrough of *Pokémon Blue* on my Game Boy Color. In the game, you play as *Red*, who journeys through Kanto (Figure 40) to beat Gym Leaders, collecting badges and to catch all 150 known species of Pokémon.

Suddenly, now I was *Red,* embarking on my first real Pokémon adventure. Though this time I was not travelling around Kanto - my own world was to be explored. My local pub became a Gym, the library was a *Tangela* nest and my friends became my rivals.

Despite having nearly 20 years of Pokémon knowledge and experience at my disposal, I was not always well-equipped for the new adventure…

Episode 1.a – Frecheville Library

The bench outside Frecheville Library was speckled with dirt. I brushed it clean and tentatively perched on the edge. I opened Pokémon GO and began to scroll down my item list. Today's mission was to use a lure on the PokéStop to take advantage of the increased Pokémon spawns. I was Level 3 and I had recorded ten Pokémon in my Pokédex – this is the log of all Pokémon. As soon as I deployed the lure, Pokémon appeared!

Sandshrew! A *Zubat* was hidden behind a *Ponyta!*

Figure 41 – Sandshrew (#027)

Figure 42 – Mankey (#056)

Figure 43 – Zubat (#041)

Unsure whether they disappeared after a certain amount of time, I eagerly tapped away and flicked Pokéballs left, right and centre. I spun the Photo Disc to ensure I got my items for the day.

"What do these falling purple petals mean?" a female voice came from nearby. "This PokéStop looks different."

"It's got a lure on it," a companion said. "I think anyway. It means more Pokémon are likely to appear. I wonder who put it here."

I went a little red. The pair appeared around the corner on the opposite side of the street. I shuffled on my seat, wondering if they had seen me. Another friend appeared from behind them.

"Yes, a player called *Professor Brier* put the lure here," the third friend said. "He's there," she added with a whisper and a nod in my direction.

It hadn't dawned on me that all players shared the same augmented overworld map. I could see the lure on my map and so everyone else could see the lure on theirs.

"Hey," the third, seemingly more confident friend said. "Are you Professor Brier?"

"Yeah," I confirmed, a little embarrassed.

Figure 44 – Oddish (#043)

"Thanks for the lure. Do you mind if we stay? We're looking for *Oddish,*" she said, already beckoning over the first two women.

"No, of course not."

There wasn't space on the bench so the trio stood in a line opposite me. Feeling awkward being the only one sitting, I stood up. Then I felt awkward

anyway as I realised I was playing Pokémon GO with three middle-aged women outside the local library.

“What level are you?” the confident, third friend asked. “I just got to Level 7!”

“Level 7?” I stuttered. “That’s impressive. The game only came out yesterday.”

I swallowed my embarrassment. I was a huge Pokéfan, yet I was only Level 3.

“Level 3 isn’t bad,” the same woman consoled after I begrudgingly shared my level with the group. “It means you don’t have a team and you can’t battle in Gyms yet though. You need to get a move on! Have you spun the Photo Disc again?”

“What do you mean?”

“Look,” she showed me her phone. “You know how once you spin the Disc it turns purple? Well it turns back blue after five minutes so you can spin it again.”

I followed her advice. Four more Pokéballs my way – result!

“Thank you,” I said. “I didn’t even realise.”

“No problem. You’ll need as many Pokéballs as you can get if you want to get to the top. I wonder what the highest level is,” she pondered.

Just as the three began to wander off to continue their search for *Oddish*, I asked, “Wait, what do you mean by teams?”

The most eager of the three was pleased to explain a little more.

“There are three teams,” she confirmed. “You have to pick a team and once you’ve picked, it can’t be changed! The team you pick will change the colour of your menus and you’ll team up with other team members at Gyms to battle and stuff. What are the three teams again?”

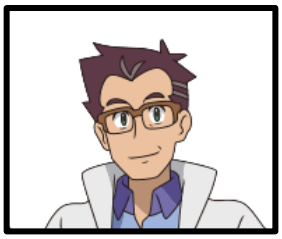
“Mystic, Valor and Instinct,” the friend on my left said.

“That’s it. Blue, Red and Yellow. Good luck – make sure you choose the right team!”

Pondering what she meant by the right team, I continued playing.

Episode 1.b – Introducing the Professor

Hello, Pokémon trainer!



Please allow me to formally introduce myself and provide you with some further information about the incredible world of Pokémon! Even if you're a Pokémon Professor like myself, take notice …

You still need to ace the quiz!

I am a Pokémon Researcher. I began my research career in 2016, just when Pokémon GO was released. This was an amazing time to begin my research! I might be new to research but believe me, I am an expert in the world of Pokémon! My specialism is the relationship between Pokémon and real-world locations. If you're here to learn about this, you are in capable hands! Let me introduce you to some initial concepts within the world of Pokémon!

Pokémon is short for Pocket Monsters. Incredibly diverse, some Pokémon resemble plants, animals, or objects. They live in harmony with humans - mostly! They live in habitats all over the Pokémon universe such as forests, caves, oceans, and grasslands. As of July 2021, there are 898 known species of Pokémon across the many regions. When a human trainer encounters a Pokémon in their wild habitat, they can capture it using a capsule called a *Pokéball* (Figure 45) which will allow them to travel with their new companion more easily.

Figure 45 – Pokéball

Nintendo (1996)

Once captured, a trainer can battle their Pokémon with other trainers' Pokémon or other wild Pokémon to gain experience and become stronger. Through gaining experience, some Pokémon can evolve, changing forms immediately and becoming stronger. How remarkable!

Each Pokémon has a set of properties that set them apart from each other. It is these characteristics that define Pokémon and this is what can make or break a Pokémon battle! A Pokémon may have one or two elemental types. There are eighteen possible types listed in Figure 46.

Figure 46 - Elemental Types

NORMAL	**FIRE**	**FIGHTING**	**DARK**	**BUG**
WATER	**FLYING**	**GRASS**	**FAIRY**	**DRAGON**
ELECTRIC	**POISON**	**GROUND**	**STEEL**	**GHOST**
PSYCHIC	**ROCK**	**ICE**		

A Pokémon's type determines what it is strong or weak against in battle (Appendix 11). Think of it like rock-paper-scissors, though this time it's WATER-GRASS-FIRE or PSYCHIC-DARK-GHOST. Much more complicated! BUG-types deal double damage to GRASS-types. STEEL-types deal half damage against ELECTRIC-types, so on and so forth.

There are especially rare Pokémon called Shiny Pokémon (see Figure 47 and 48). These are the same as regular Pokémon but have a different colour palette. If you see one, make sure you catch it. These special Pokémon are incredibly rare and coveted.

Figure 47 - Regular Heracross (#214)

Figure 48 - Shiny Heracross

You have taken your first steps into the Pokémon universe!

QUIZ TIME!
You have learned so much so far! Let's see what you have remembered.

Question: ***What types are ICE types effective against?***
Answer: ***FLYING, GROUND, GRASS and DRAGON***

You need to brush up on your type chart, I think! There are lots of Pokémon Professors across the world who will help you along the way (see Appendix 6 for a list of Pokémon Professors). Within Pokémon GO, my colleague *Professor Willow* (Figure 49) specialises in researching the regional distribution of Pokémon. He works alongside the team leaders: Candela, Blanche and Spark!

Figure 49 – Professor Willow

Pokémon GO connects you to the world of Pokémon and everything it has to offer. Let me show you how Pokémon GO makes this happen. Let me be your guide, your mentor. Let me take you on a journey. Let's have fun!

Let's GO!

Professor Brier

Episode 1.c – The Royal Standard

It was a Friday night after work. Inside the local pub, The Royal Standard, I was sitting on the peripherals of my group. I slipped my phone out of my pocket discreetly to swipe the PokéStop.

"Why did you pick Instinct?"

A colleague, Bonnie, was peering over my shoulder looking at my phone. Bonnie had never shown any indication she liked Pokémon or played a Pokémon game before. We had never spoken about Pokémon ever. Yet she knew the name of my team by the background colour of my player menu? What was happening?

"Spark is the coolest leader out of the three. You're playing?" I asked curiously.

"Of course I am. *Team Valor*," she said, taking a seat. "I'm Level 8. What about you?"

"Level 6. I caught an *Electabuzz* at work earlier though."

Figure 50 – Electabuzz (#125)

"Is that supposed to be rare?" she replied with a half shrug. "I got loads of *Ponyta* this morning."

Of course Electabuzz is rarer!

"It's all about finding the rare Pokémon for me," I said. "I'm not fussed about my level now I've chosen my team."

Bonnie started scrolling through her Pokédex slowly.

"Would you show me your Pokédex and let me know what the rare Pokémon are so I can look out for them?"

"Here, look," I said. I pointed to the last three rows of the Pokédex. "These are the ones you need to look out for. These are the rarest."

"Wait, I saw this the other day!"

Figure 51 – Ponyta (#077)

Bonnie

I was playing at home when it spawned nearby. I didn't recognise it so I immediately left to try and find it. About a hundred metres up the road, I spotted something I hadn't noticed before. It was a PokéStop on the edge of the map. I tried to think of what it could be but I had no idea. Most of the PokéStops in my area are pubs or churches. This was definitely neither. So I headed in that direction, hoping I'd find the rare Pokémon on the way.

I tapped on the icon as soon as I could and it said the PokéStop was named "World War II Bunker". I was baffled as I didn't know there was a bunker near my house. As I got near, the PokéStop was in the middle of this patch of trees near the bus route. I've never been in there before but I've walked past it hundreds of times. I stepped through the trees and there it was. It was partly buried but definitely there. There was a small sign as well giving some information. Never knew it was there.

I asked my mother when I got back if she'd seen it before and she had no idea either. It's so strange. Turns out, I was so distracted by the bunker, I missed my opportunity to catch the Pokémon!

I wonder what I'll find next time.

Episode 1.d – Community Days Tutorial

Greetings, Pokéfans!

Isn't the Pokémon universe simply fascinating?

With so much to discover, do you want to ensure you meet your fellow Pokémon adventurers on a monthly basis? Let me introduce you to Community Days!

Figure 52 - Introducing Pokémon GO Community Day!

Community Days are monthly events that feature a specific Pokémon! This Pokémon will appear more often in the wild so this is an opportunity to catch the Pokémon, evolve it and earn lots and lots of Pokémon Candy – you could use this to power up your Pokémon!

How exciting!

Will it be the electric mouse *Pikachu*? Or maybe *Charmander*? Check online to find out!

There are plenty of other bonuses, of course! You could receive more PokéCoins and maybe the Pokémon will have a special move! You might even get more experience points and specific Field Research tasks to complete as well!

To take part, all you need to do is head out into the community! Meet up at your local park to make new friends and experience what it means to be a part of this community.

QUIZ TIME!

Question: ***What year were Pokémon first discovered in Japan?***

Answer: ***If you said 1996, you're awesome!***

Now, go out and have fun!

Professor Brier

Episode 1.e – Weston Park (1)

Despite living in Sheffield the majority of my life, I had only been to Weston Park on a handful of occasions. The park is situated just north of the city centre, adjoining The University of Sheffield and adjacent to a hospital of the same name. On the day of the *Mareep* Community Day, I decided to venture early to the park to determine how good a Pokémon GO spot the area was and what the park had to offer. I arrived at the park's north entrance, which I found to be at the intersection of three parks. This is marked by the purple star in Figure 54.

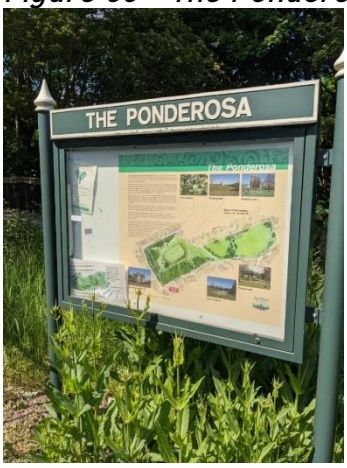
Figure 53 – Mareep (#179)

Figure 54 – The Crookesmoor Parks

To the west was the entrance to Crookes Valley Park (Figure 55) and to the north, The Ponderosa (Figure 56).

Figure 55 - Crookes Valley Park

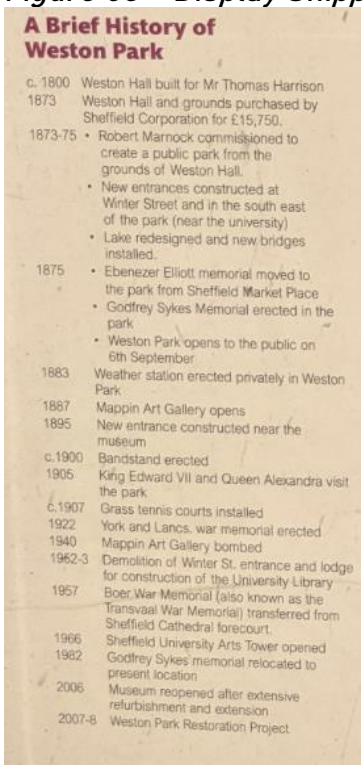
Figure 56 - The Ponderosa



I walked past the other parks and entered Weston Park to the south. I was greeted by a large notice board (Figure 57).

Figure 57 – Weston Park Entrance

Figure 58 - Display Snippet



A Brief History of Weston Park

c. 1800	Weston Hall built for Mr Thomas Harrison
1873	Weston Hall and grounds purchased by Sheffield Corporation for £15,750.
1873-75	• Robert Marnock commissioned to create a public park from the grounds of Weston Hall. • New entrances constructed at Winter Street and in the south east of the park (near the university) • Lake redesigned and new bridges installed.
1875	• Ebenezer Elliott memorial moved to the park from Sheffield Market Place • Godfrey Sykes Memorial erected in the park • Weston Park opens to the public on 6th September
1883	Weather station erected privately in Weston Park
1887	Mappin Art Gallery opens
1895	New entrance constructed near the museum
c.1900	Bandstand erected
1905	King Edward VII and Queen Alexandra visit the park
c.1907	Grass tennis courts installed
1922	York and Lancs. war memorial erected
1940	Mappin Art Gallery bombed
1952-3	Demolition of Winter St. entrance and lodge for construction of the University Library
1957	Boer War Memorial (also known as the Transvaal War Memorial) transferred from Sheffield Cathedral forecourt.
1966	Sheffield University Arts Tower opened
1982	Godfrey Sykes memorial relocated to present location
2006	Museum reopened after extensive refurbishment and extension
2007-8	Weston Park Restoration Project

The display on right advertised local events, crafts groups, and services such as gardening and dog walking. The main display provided historical information about the park, including a timeline of main events (Figure 58). A large map indicated and described each of the various points of interest and landmarks.

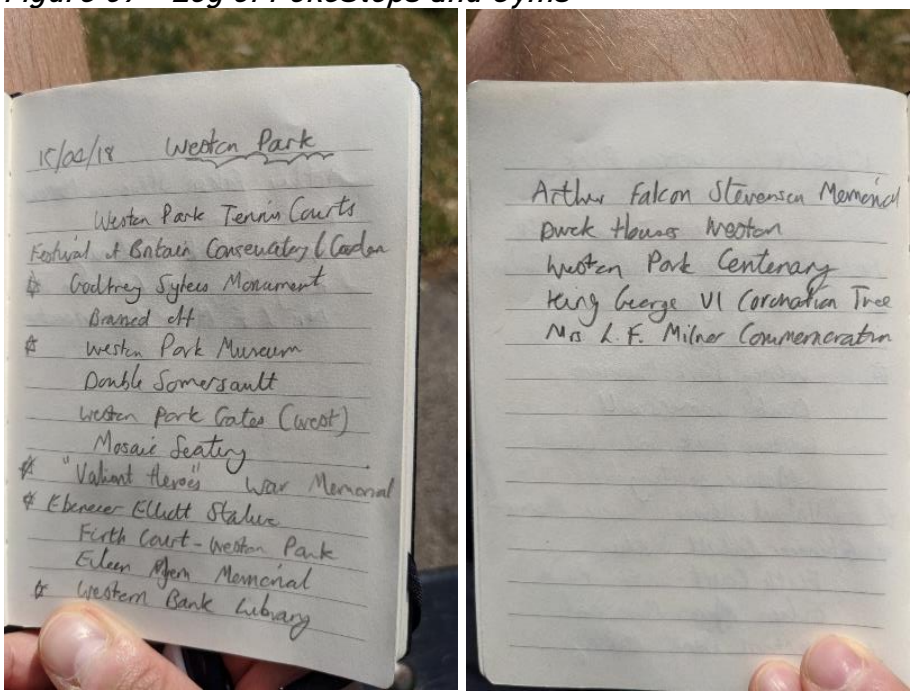
I began my exploration.

My phone was in hand so I could follow the PokéStops and Gyms but I didn't swipe to catch any Pokémon. Weston Park was a small park so it would take only ten minutes to circle. At my entrance, there was a tennis court.

Walking anti-clockwise, I found the Weston Park Museum and the western entrance. Walking south, I passed multiple monuments before reaching Firth Court, a flagship University of Sheffield building. Now walking north, the duck ponds appeared before me. I walked over the bridge, opposite Western Bank Library, and meandered back to the tennis courts.

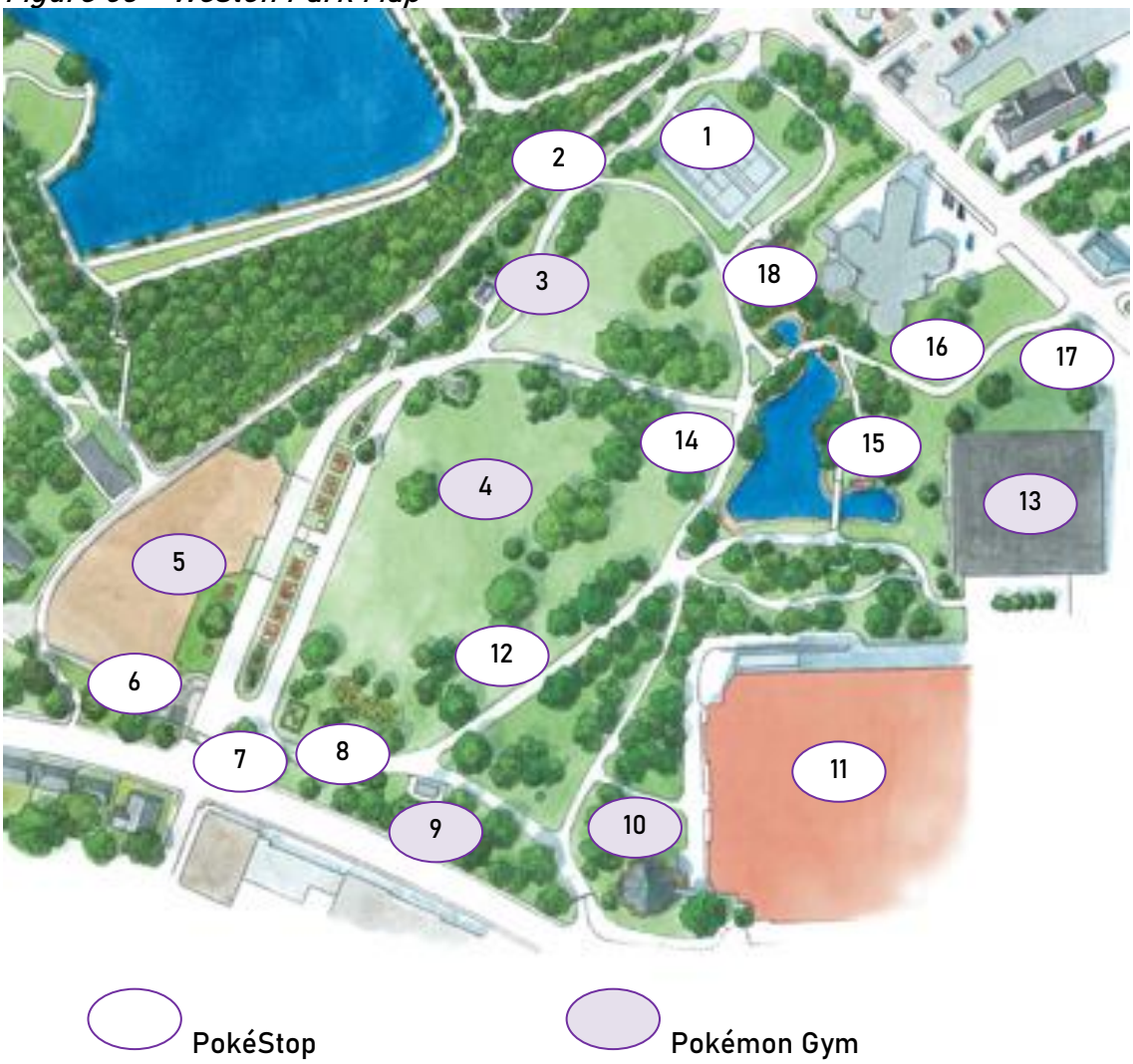
Having got my bearings, I did another lap of the park, this time making a detailed log of the PokéStops and Gyms along the way now I knew what to expect. I made a list (Figure 59) and mapped them later on my own map (Figure 60).

Figure 59 - Log of PokéStops and Gyms



1. Weston Park Tennis courts
2. Festival of Britain Conservatory and Gardens
3. Godfrey Sykes Monument
4. Brassed Off
5. Weston Park Museum
6. Double Somersault
7. Weston Park Gates (West)
8. Mosaic Seating
9. “Valiant Heroes” War Memorial
10. Ebenezer Elliott Statue
11. Firth Court – Weston Park
12. Eileen Ryan Memorial
13. Western Bank Library
14. Arthur Falcon Stevenson Memorial
15. Duck Houses Weston
16. Weston Park Centenary
17. King George VI Coronation Tree
18. Mrs L. F. Milner Commemoration

Figure 60 - Weston Park Map



At the time of my visit, I found twelve PokéStops and six Gyms located within the park. It was an impressive number in such a small area so I could see why the park appealed to Pokémon GO players. Looking at my list, some points of interest were clearer than others by their name. Some were bigger than others so easier to find. Some were tucked away around corners so they could be seen on the augmented map but not in real life. At first glance, *Double Somersault* was a little confusing but when I turned the corner of the museum and did indeed find a huge silver monument, it made a lot more sense (Figure 61).

Figure 61 - Double Somersault

Figure 62 - Mosaic Flooring

The mosaic flooring (Figure 62) took a moment to find and also came as a pleasant surprise. In an area of the park shadowed by Victorian architecture, four mosaics were etched into the floor depicting scenes from what I assumed were Greek mythology. There was no sign describing the mosaic and a Google search has yet to shed any further light on their origin either. While the mosaic flooring might have been hard to miss for a regular passer-by, the Valiant Heroes War Memorial (Figure 63) was not.

Figure 63 - Valiant Heroes

Figure 64 – Transvaal Memorial

The monument was to honour the lives of soldiers lost during both world wars of the twentieth century. The monument was clean and well preserved and demanded a huge amount of space. Just north of the monument, while not a PokéStop, a small bronze memorial honoured the lives lost during the Boer War (Figure 64).

Duck ponds nestled comfortably within the eastern part of the park. There were two bridges, benches and – of course – ducks. Pigeons and other birds were also present, vying for food from a local who was scattering seeds. I felt some kind of juxtaposition as I could see a large tower (The University of Sheffield Arts Tower) looming over the park (Figure 65). I had nearly forgotten I was so close to the city centre.

Figure 65 – View from the Duck Pond

Having now circled the park, I situated myself in the very centre where there was an open green space. I took a seat, made a few notes based on what I had seen – which informed this episode – and placed a lure on the nearest PokéStop, Eileen Ryan Memorial. The nearest points of interest however were two of my favourite landmarks as shown in Figure 66 and Figure 67.

Figure 66 - Godfrey Sykes Memorial

Figure 67 - Bandstand

A few groups were dotted around taking advantage of the warm morning sun but there were no obvious Pokémon GO players. There was still half an hour until the Community Day began so I relaxed and took advantage of the bug-type *Pineco* nest, a place a particular Pokémon spawned frequently.

"Have you caught *Mew* yet?" a voice came from behind.

Please find my observation notes below.

Professor Brier

There was a man in his early twenties leaning on the rails behind the player. His Pikachu hat covered the majority of his hair but a wide smile was prominent. The man was observing a player making notes while playing Pokémon GO, peering over his shoulder

"Not yet," the player replied dubiously. The observer was referring to a special event that had been released the previous month – the chance to capture Mew (Figure 68) was the prize. "I'm struggling to catch a *Ditto*."

"That's the most difficult part," the new friend said. He took up the space next to the player. "I was lucky."

Figure 68 – Mew (#151)

He presented the player with his phone displaying a *Mew*.

"Awesome, well done," the player said, a little envious. "I'm sure I'll find a *Ditto* eventually. I might even get one today."

"I hope so, buddy. Do you know anyone coming today?"

"No, I just came to see how many people would turn up," he admitted.

"Just you see. This park will be rammed in ten minutes. These other people won't know what hit them! I'm Cilan by the way."

Cilan eagerly offered his hand.

"I'm Ben," the player said. "Pleasure to meet you."

Sure enough, more and more players were arriving. Some were individuals and some were in groups. All were Pokémon GO players here to capture *Mareep*!

"Come on," Cilan directed. "Let's meet everyone else at the gates."

Ben began to pack away all his things and followed the lead of his new friend. Cilan seemed to know many of the people as he nodded and waved to various players on the way to the gates.

"We usually start here," he explained as they arrived at the western gates. "Then we circle the park a few times. Unless it's raining and then we usually stay under the trees."

When Ben checked the game, all PokéStops had lures so the whole map was filled with falling pink petals. He scanned the crowd and there were around a hundred and fifty players just gathered around the western gates. A parting split the group in two, allowing non-players to pass through in and out of the park.

"This is mental," Ben said in awe. "Who knew a Pokémon based on a sheep could bring so many players together?"

"It's starting now!" Cilan squealed enthusiastically. "I wonder if my first *Mareep* will be a Shiny. I hope so. Oh, it's not but never mind."

The map was packed with Mareep. The collective began to circle the park slowly.

"This is a great place to play Pokémon," Ben commented later on the visit. "There's so many PokéStops."

"I know, right," Cilan said. He had introduced Ben to a few of his friends and they were now relaxing near the bandstand. "Have you played at Millhouses? It's awesome there."

"It's good at Hillsborough Park too," one of Cilan's friends added. "It's a small park and has a good circular route like this."

"I prefer the city centre," a different friend said. "It's much bigger and has more to offer. When you go to the parks, sometimes there's not a toilet or café around. In the city centre, you can do other things between play."

"Yeah, but it's distracting," Cilan countered. "I prefer having a session like this where all I do is play Pokémon. Besides, there's a Starbucks there."

Ben made an internal note of some of the places new friends had mentioned as potential places to visit.

"Shall we add each other as friends in the game?" Cilan asked Ben when the event had finished and the players were beginning to disband.

"Sure, here's my friend code!"

Ben loaded the QR code on his phone so Cilan could scan it. They instantly connected and Cilan sent his new friend a gift immediately.

"Let's send each other gifts daily," Cilan suggested excitedly. "I always have spare gifts after I've hit all the PokéStops in my area."

"Excellent!"

"Are you a part of the Sheffield Discord group?" Cilan added.

"I've heard of it but never used it."

"You've got to join! You won't believe how much it's changed how I play."

Cilan

I began playing Pokémon GO from the day it first released. I'm a huge Pokémon fan so it was right up my street. After the hype died down, fewer and fewer players were around so I found it hard to keep up momentum within the game. I used Facebook to connect with others but players weren't always serious. Eventually, someone on Facebook recommended Discord.

It's an app you can download and you join a server. On each server, there are different chatrooms and stuff for players to use. Our server is just called Pokémon GO – Sheffield. All serious players use Discord to find each other. There are chatrooms for each postcode in Sheffield so you can find people who live nearby.

This is how we all met. We all commented on different things in our area chatroom and that's how we became aware of each other. Since the first Community Day, we said we would try to meet up at least every month but then Niantic seems to be bringing out more and more mini events so who knows? We might end up meeting more often.

"So give me your details and I'll send you a link to the server. We can connect there and you can find other players in your local area too."

"Sure, thank you," Ben replied, curiosity building. "It's been a blast."

"We are meeting up at the next Community Day, right?"

"Absolutely. See you then!"

Episode 1 – Discussion

The autoethnographic accounts in Episode 1 presented a selection of my early Pokémon GO experiences. The basis of Episode 1 is the novelty of Pokémon GO, not necessarily regarding the gameplay mechanics, but in terms of how I engaged with others in different real-world locations across Sheffield. Episode 1.a showed how I embarked on a mission to deploy a lure module at a local PokéStop. On my journey, I met three other players who had also just begun their Pokémon GO journey. Professor Brier introduced himself in Episode 1.b and provided an overview of the basic mechanics of Pokémon gameplay. People around me who I knew had never played Pokémon before began to play, such as my colleague Bonnie, taking me by surprise as shown in Episode 1.c. Professor Brier introduced the Community Day feature in Episode 1.d, which are monthly events created by Niantic hosted within the local community. Furthermore, I visited a new park to experience Community Day in Episode 1.e and Professor Brier narrated how I met a new friend named Cilan in Episode 1.f.

This discussion section draws on key themes within the data and applies lenses (as outlined in Section 3.6) in the following way:

	Lens 1 Play and playfulness	Lens 2 The experience with(in) space	Lens 3 The influence of space
Knowledge Distribution	☑		☑
Exploration		☑	☑
Navigation	☑		☑
Social Interaction		☑	

Knowledge Distribution

When I used the lure module in Episode 1.a, nearby players noticed the purple petals descending from the Frecheville Library PokéStop on their augmented reality map, which prompted them to travel to the Wayspot to understand what the lure module entailed. This resulted in a small collection of individuals gathering within the same shared space. In this moment, Pokémon GO play became characterised by social interaction based on curiosity (Mardell et al. 2016). Those who I met outside Frecheville Library, including myself, had a shared emerging passion for Pokémon GO, which was the sole focus of our conversation and purpose for being in that space, exemplifying how "a common endeavour for which at least many people in the space have a passion—not race, class, gender, or disability—is primary" (Gee and Hayes 2012, p. 9). The conversation that followed indicates the speed in which bonds can form within an affinity space based on a shared interest. The formation of relationships enabled rapid learning. The three female players had a stronger understanding of the level system and team affiliation, which they shared with me. Firstly, this shows how "newbies, masters and everyone else share a common space" (Gee and Hayes 2012, p. 11) and that new players are welcomed (Davies 2006). While the game was still relatively new, meaning it would be unlikely there would be masters of the game at this point, the data indicates others have a more advanced knowledgebase than other players. Secondly, this exemplifies how knowledge is shared between players of differing levels and expertise. New players are able to build their knowledge, facilitating the development of specialist knowledge within the shared space, linking to the notion that affinity spaces allow "the development of both specialist and broad, general knowledge are encouraged, and specialist knowledge is pooled" (Gee and Hayes 2012, p. 14). Sharing the same space enabled the construction and sharing of knowledge about the game, which is indicative of a nurturing affinity space. Within this moment, Frecheville Library provided a space in which information about the game could be shared. This Wayspot is not usually associated with this form of play, but this does highlight the potential for businesses to extend their services to individuals who linger outside for play (Costigan et al. 2017; Kohn 2016).

Exploration

Within Bonnie's memory, she recalled how she discovered a new point of interest in her neighbourhood through the tracking of a new Pokémon on the augmented reality map, indicating this moment of Pokémon GO play centred on discovery of new locations. Led by her curiosity, she travelled to an unknown Wayspot to discover what it represented. This playful behaviour embodies the *dérive* (de Souza e Silva and Hjorth 2009). Bonnie allowed herself to be absorbed within the space, forgetting she had begun the journey to capture an undiscovered Pokémon. Her focus was not the game screen for the purpose of catching the new Pokémon (Farman 2012; Gazzard 2011), rather it served a navigational tool to a new point of interest (Lammes and Wilmott 2018). Despite living in the area for a significant period of time, Bonnie described an unusual World War II bunker hidden within a small woodland that she had walked past many times before but had never entered. Furthermore, the information about the point of interest was shared to non-players (Bonnie's mother) and other players (myself) indicating how Pokémon GO facilitates the dispersion of information about real-world locations (Gee and Hayes 2012). Pokémon GO facilitated the discovery of a new point of interest through play, which ultimately heightened Bonnie's interest in her local area and encouraged Bonnie to perceive her local area as a space of potential new discoveries. This playful discovery of the bunker highlights the continual construction of how we perceive and understand space (Massey 2005) through movement through it (Ingold 2007), which location-based games such as Pokémon GO facilitate naturally.

Navigation

Episode 1.e and 1.f narrated my first visit to Weston Park for Pokémon GO, which illustrates Pokémon GO supports exploratory play. My journey to Weston Park was for the sole purpose of Pokémon. When I first arrived, I idly circled the park using points of interest as waypoints. Embodying the *flâneur/phoneur* (de Souza e Silva and Hjorth 2009), I explored my surroundings, taking photographs and making notes in coordination with play. I allowed the game to guide me around the park following the Wayspots. The visit to the park entailed a meticulous exploration of my surroundings using Pokémon GO as a map or compass (Lammes and Wilmott

2018). Using the game as an orientation tool enabled me to easily locate less well-known or visible points of interest. In some cases, this was facilitated directly by Pokémon GO such as a point of interest manifesting as a Wayspot *(Double Somersault)* but in other cases, exploration was led by more open curiosity *(Transvaal Memorial)* demonstrating the interface of the game did not pose a barrier to how I interacted with the environment. While Weston Park is situated in the city I live, it is not my local park. The park is situated 6 miles away from home, corresponding to a thirty minute drive through the city centre. This is significant as it highlights the importance of spaces of gameplay and the willingness to travel to new locations (Graells-Garrido et al. 2018). Pokémon GO players hold a preference for where they play Pokémon GO, as demonstrated by the conversation between players in Episode 1.f. Some players prefer city centre locations while others prefer suburban parks. Players defending their place of choice is indicative of place identity (Vella et al. 2019). Play centred on exploration is indicative of feeling a sense of belonging (Mardell et al. 2016). Weston Park offered an exciting opportunity to learn more about the city in which I was raised. While I did play Pokémon GO as I traversed the park, this was not the sole focus. Exploring and the exciting prospect of learning more about the park was the focus. Perceiving the space as playful and exciting counters Gazzard (2011) who believes "there is no attachment to particular parts of the space where objects to be collected may lie" (p. 414). This visit to Weston Park sowed the seeds for the development of active place attachment and identity as explored within Episode 2.

<u>Social Interaction and Cooperation</u>

My encounter with Cilan demonstrates the importance of social interaction within Pokémon GO play. In a similar way to the lure module, Cilan and I were brought together to Weston Park for Community Day, an in-game event that encourages players to collaborate with the community. Cilan's introduction and subsequent behaviour illustrates the way in which occupying ludically charged spaces influences Pokémon GO players. Through my gameplay behaviour such as navigating the park via Wayspots using my mobile phone, Cilan was able to identify me as a fellow Pokémon GO player and he recognised at that moment we were

sharing the same embodied experience (Apperley and Moore 2019). The importance of gestures of play is further evident in Episode 1.b. At The Royal Standard, Bonnie recognised me as a fellow Pokémon GO player, not from my history as a Pokémon player or previous conversations, but from my gestures. The action of swiping the mobile device in a particular manner created a haptic effect that became intertwined with the play itself (Apperley and Moore 2019). At the moment of recognition of mutual Pokémon GO play, the space becomes ludically charged (Giddings 2009) enabling the sharing of Pokémon GO memories.

My interactions with Cilan in Episode 1.c illustrate how cooperation and challenge (Mardell et al. 2016) is core to the Pokémon GO gameplay experience. Cilan serves as an interesting case study on how players achieve a particular status through his interactions situated within real-world locations for play. He navigates between face-to-face interactions and online platforms, preferring Discord as opposed to Facebook as it is highly organised and generally attracts those who are fully committed to the community rather than casual players. The preference for Discord highlights he is not only passionate for Pokémon GO, but also the way in which the space is organised, corroborating Gee and Hayes (2012) on their understanding of affinity spaces. It is also important to note that Cilan's preference for Discord, which attracts dedicated players, does not entail he only interacts with the most dedicated players. On the contrary, Cilan enables casual players to become more serious players if they wish to. Through his face-to-face interactions, Cilan provides a gateway to the online community. Acting as a leader or guide, he felt a level of responsibility to ensure all players are involved with different elements of the Pokémon GO community. This allows players to develop their knowledge of the game, facilitating the distribution of individual and specialist knowledge across the community, if they choose to explore the online affinity space. Furthermore, this exemplifies how Cilan gives players the opportunity to access different forms and routes of participation (Gee and Hayes 2012, p. 20). This moment demonstrates occupying a nurturing affinity space provides a safe space for player collaboration. By recognising we were embodying a shared gameplay experience, Cilan was comfortable reaching out to me as a fellow player who he had not met before.

Weston Park became host to Community Day through the players who chose to direct their gameplay to the park for the event. The large influx of players shapes how Pokémon GO players perceive spaces for play by reinforcing the playful potential of real-world locations for play.

Episode 1 – Summary

The autoethnographic accounts in Episode 1 demonstrate that Pokémon GO supports exploratory and investigative play driven by curiosity of Pokémon and the built environment. This is characterised by social interactions with new players, collaborating and learning from other players and exploring new locations. Gameplay mechanics such as the lure module (in Episode 1.a) and Community Day (in Episode 1.e and 1.f) draw players to gather around the same real-world location, enabling the formation of offline affinity spaces. These types of play encourage players to view the real-world with a playful lens, enabling spaces to be reimagined as spaces of potential new discoveries and opportunities. By encouraging players to return to the same locations, Episode 1 showed this facilitates the development of place bonding. Episode 2 highlights how online spaces become important on my journey to become a more serious Pokémon GO player.

Chapter 5 – Episode 2: Expanding Spaces

Figure 69 – The Silph Road Trainer Card

<u>Episode 2 - Introduction</u>

Following Cilan's recommendation, I joined Discord, which expanded my reach into the Pokémon GO metagame. Discord and ultimately The Silph Road (Figure 69) unlocked a new stream of communication with other Pokémon GO players, therefore becoming the conduit to enable me to become a more serious Pokémon GO player.

Episode 2.a – The Silph Road

Please find my observation notes below.

Professor Brier

The player, Ben, was idly flicking through the internet. He went seamlessly from BBC News articles to Facebook to Twitter to Serebii.net, which was perhaps the most famous Pokémon fan site. He was bored and it was a dry Pokémon period – no news of a new game and no new events in Pokémon GO. He switched to Discord.

Discord

	EasyPeasy23 *Have you tried the silph road? We need get to get more people involved*
	BrandyBoy24 *I did when it first came out. It's pretty cool.*
	EasyPeasy23 *It's got much better now. You should check it out if your interested in competitive play.*
	BrandyBoy24 *Is it easy to set up an account*
	EasyPeasy23 *Takes a couples of mins*
Ben *The Silph Road? I didn't realise it was still going.*	
	EasyPeasy23 *It's much bigger than before. Since Community Days, its just exploded.*
Ben *I might take a look.*	
	EasyPeasy23 *Here's the link:* https://thesilphroad.com/
	BrandyBoy24 *Do you think enough people will join?*
	EasyPeasy23 *I think they will. So many players on here are dedicated. Cant see why they wouldn't*
	BrandyBoy24 *I'll join now and next com day, we can virtual handshake*

Curiosity growing, Ben followed the link. The Silph Road page opened before him. He clicked the *More Information* link and he was directed to a video outlining the purpose of the platform (see Figure 70).

Figure 70 – The Silph Road
Tech Insider (2016)

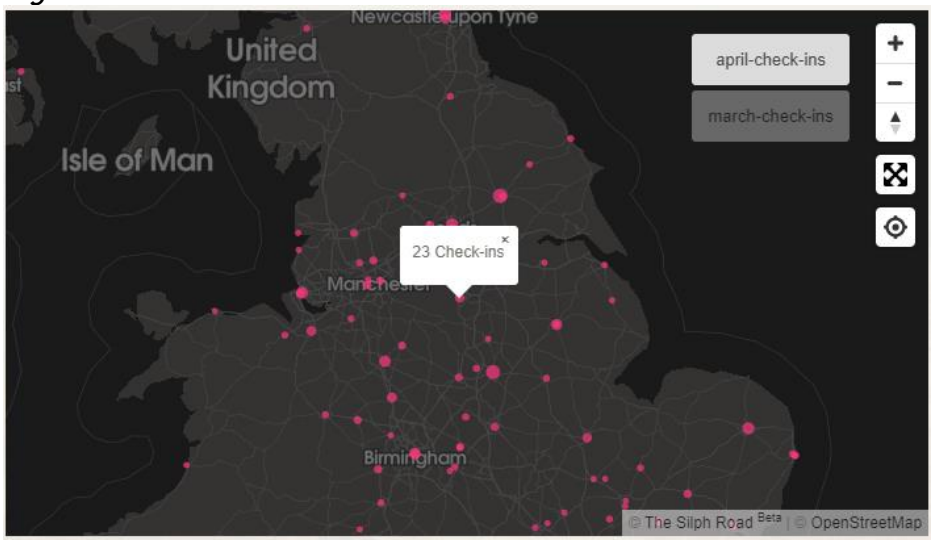
Remembering the discussion on Discord, the player looked at how The Silph Road contributed to Community Days. He found the following statistics:

- **13.8% increase in staff checking travellers in**
- **14.3% growth in the number of participating League communities**
- **5.3% more travellers check in overall around the world**

The Silph Road (2018)

Interested in maps, Ben clicked on the Visualising League Participation map. It showed that 23 players had checked in during *Mareep* Community day within the Sheffield region (Figure 71). This was an increase from the 15 who had checked in during the March Community Day.

Figure 71 - Sheffield Check Ins

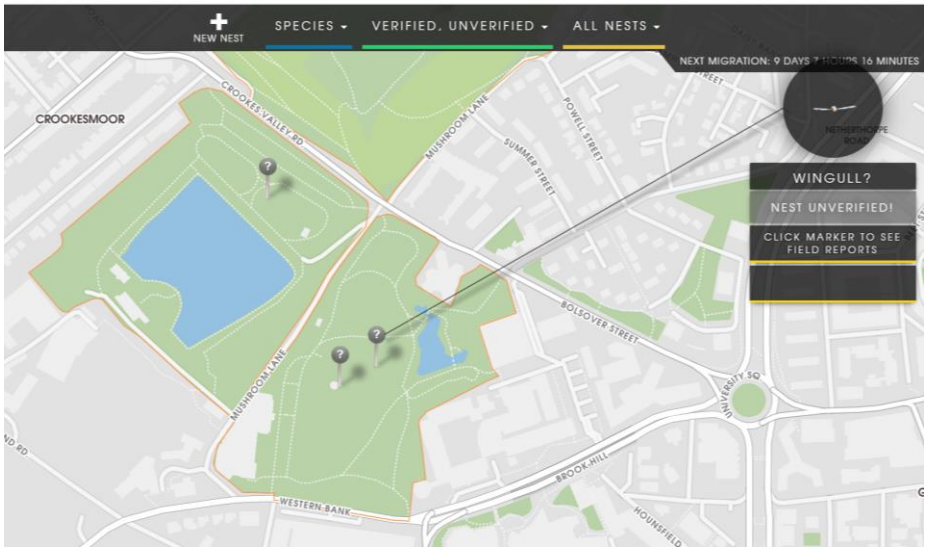


The report listed 392 cities and towns with active Pokémon GO communities across the world from Nelspruit (South Africa) to Puebla (Mexico). Some pictures, such as Figure 72, showed how players had created their own PokéStop in real life featuring The Silph Road *Mareep* Community Day badge in the centre.

Figure 72 - Kaarst, Germany

As he navigated his way around the website, it was clear to Ben that the Nest Atlas was the website's most distinguished feature (Figure 73). The map of the world indicated where specific Pokémon were likely to spawn. This was created by players to allow other players to coordinate their gameplay.

Figure 73 - Nest Atlas (The Silph Road)



To test the feature, Ben searched for Weston Park, Sheffield to see what the local spawns were. He was pleased to see there was a sighting of a *Wingull*. It was listed as unverified as another player had not been to the location to confirm the sighting. Within The Silph Road, Ben discovered players could create their own profile so without a second thought, he started the process (Figure 74).

Figure 74 - The Silph Road (Account Creation)

Reading the text carefully, a sense of nostalgia slowly began to envelop him. The introduction to the website echoed the words of Professor Oak. He felt an immediate connection. He sat up and straightened his shoulders. He was ready to help! It was his duty to help.

Creating the Trainer Card was an easy process but deciding who were his favourite six Pokémon was considerably more difficult (Figure 69).

The trainer card included progress bars indicating progress towards Level 40 in terms of experience points and Pokédex completion in a way Pokémon GO did not. In addition, The Silph Road had a series of badges which players could collect. Players could connect with each other through *virtual handshakes*. This could lead to battles to become the highest ranked player in your region.

Ben switched back to Discord.

Discord

Ben
Silph Road is pretty cool. I didn't know it was as sophisticated as this.

EasyPeasy23
You got it already? Will you be out for the next com day? We need to meet for the handshake

Ben
Absolutely. Where do you meet?

EasyPeasy23
Usually town. We'll post it on here so just keep checking.

Ben
Awesome.

EasyPeasy23
Make sure you get other people to join.

Ben
Will do my best.

Episode 2.b – Raid Battles Tutorial

Greetings, Poképans!

You've got to be as strong as *Red* to beat these pesky Raid Bosses!

In these special battles, you challenge a wild Pokémon – a Raid Boss – which is usually especially strong or rare. Raid Bosses are positioned at Pokémon Gyms for a limited time so when you see one, be sure to check it out before it leaves. Figure 75 shows the Raid Boss *Combusken* based at *The Art Society Gym*. In order to challenge a Raid Boss, you must be in close proximity to the Gym as usual and have a spare Raid Pass, which you can acquire from spinning Photo Discs at PokéStops or Gyms.

Figure 75 - Raid Boss

Not Raids are the same level!

Level 5 Raids are tough. These Raid Bosses are incredibly difficult to defeat without fellow players to support you. Gather up to twenty trainers to defeat a Raid Boss.

You can locate nearby Raid Battles from the Nearby Menu on the augmented map. By using this feature, you can coordinate where to visit next and which Raid Bosses you can defeat with the resources you have and players in your company. First, Raid Eggs appear with an hour timer. Once the hour has passed, a Raid Boss will hatch with a forty-five-minute timer. In this time frame, it is your opportunity to challenge the Raid Boss!

Figure 76 - Raid Battle Lobby

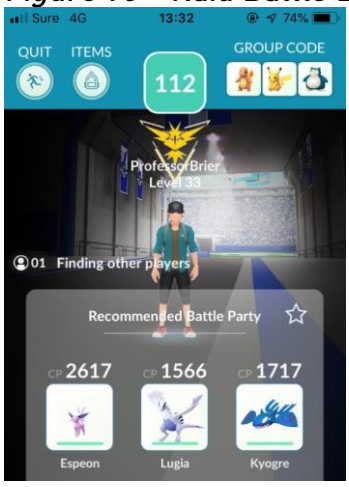


Figure 77 - Player Statistics

When you have found a Raid Boss and you are ready for battle, you enter a lobby (Figure 76) and a new two-minute timer appears so other players can join your lobby. You can create a private group if you have a particular group of players you want to collaborate with. When you are in the lobby, you can see other players and select them to view their gameplay statistics (Figure 77).

The two minutes also gives you the chance to select which Pokémon from your party you are going to use for battle. This is where knowing the type advantage chart (see Appendix 11) becomes important so you can choose the most appropriate Pokémon from your roster to defeat the Raid Boss.

QUIZ TIME!

Question: ***Which Pokémon would you use against* Combusken?** ***Water-type* Marshtomp *(Figure 78) or Grass-type* Grovyle (Figure 79)?**

Figure 78 – Marshtomp (#259)

Figure 79 – Grovyle (#253)

Answer: ***If you said* Marshtomp*, you were right!***

Well done, Pokémon trainer!

Figure 80 - Raid Battle

Once you've selected your Pokémon, the Raid begins when the two minutes run out so make sure everyone is ready! During the Raid Battle, all normal battle techniques are available but you must defeat the Raid Boss within the battle time limit (Figure 80). If you don't defeat the Raid Boss, the Raid Battle is lost.

However, if all of your six Pokémon are defeated, do not despair! You will return to the lobby where you can heal your Pokémon, provided you have enough items and time. Then, you can re-join your group to continue the Raid Battle. If you are able to defeat the Raid Boss, all players will receive special Pokéballs, *Premier Balls*, which can be used exclusively in the Raid Battle's bonus challenge (Figure 81) – the chance to capture the Raid Boss!

Figure 81 - Raid Bonus Challenge

Figure 82 - Captured Raid Boss

You can only use your allocated number of Premier Balls but you can still use Berries to assist you in the challenge. Don't worry, the Pokémon will not flee unless you run out of Premier Balls, in which case, you have unfortunately been unsuccessful in the capture.

Raid Bosses are notoriously difficult to capture! If you capture the Raid Boss, it's yours (Figure 82).

I have also heard something incredibly interesting! Raid Bosses have a chance of becoming Shiny during the bonus challenge if you are lucky! If you manage to find a Shiny in a Level 5 Legendary Raid, you are guaranteed to capture the super rare Pokémon from the first Premier Ball that hits it!

How about that?

The roster of Pokémon who appear as Raid Bosses changes regularly so keep checking what Raids are happening nearby so you don't miss out!

Let's GO Raiding!

Professor Brier

Episode 2.c – Weston Park (3)

It was an early Sunday morning at Weston Park and very few people were enjoying the park. There were no *lures* on any PokéStops except the one I had placed suggesting the park was player-free. Slightly disappointed, I strolled around waiting for a Raid to begin regardless. At *Brassed Off,* a Level 2 Raid Egg hatched into a *Breloom* (Figure 83). I stood close to it but remained visible.

Figure 83 – Breloom (#286)

Figure 84 – Infernape (#392)

The Raid Boss was only 10,456CP so I felt confident I could take it down by myself even if no other players joined. I prepared my team for battle, selecting Fire-types such as *Infernape* (Figure 84) to gain the advantage against the Grass/Fighting type.

I looked around for other potential battlers. There was a woman in her fifties walking her chihuahua. She was looking at her phone but it was hard to say if she was playing or not. I tried to peek at her phone but she continued straight past the Raid anyway. The clock ticked down and the battle began.

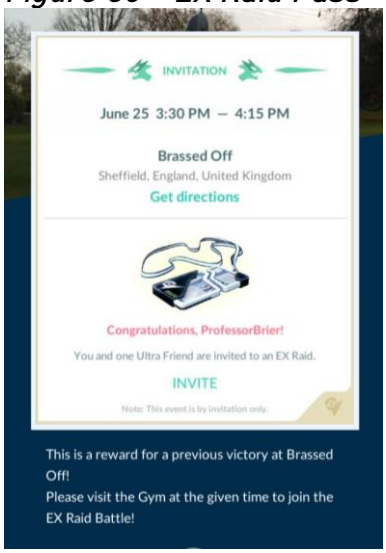
Raid battles had been available in the game for a few weeks but I had only done a small handful. Despite my inexperience, I still knew what to do as there are practice features within the game. I tapped away to deal damage to the foe, *Infernape* battling hard.

I defeated the Raid Boss solo! Beads of sweat built on my forehead as I swiped to capture the *Breloom*. I was successful on my fourth attempt so this was a new addition to my collection. I circled the park a few more times before leaving. I left the park feeling the trip to Weston Park had been incredibly anticlimactic.

However …

I received a notification within the game. I had received an Exclusive Raid Pass or EX Raid Pass (Figure 85).

Figure 85 - EX Raid Pass



Disappointment changed to excitement at the new prospect. I put the date in my diary and left the park with a smile.

Episode 2.d – Weston Park (4)

The pass was self-explanatory. Having won the Raid against *Breloom*, I was given the opportunity to return to the Gym at the specified date and time to take part in another Raid alongside other successful players. The time was a little awkward with work but I made a commitment to go and see what the event would entail.

Weather was not favourable. It was throwing it down but I refused to let this put me off. I donned my overcoat and umbrella and set off to the park from the comfort of my desk.

I was fifteen minutes early but I didn't walk around the park to fit in some gameplay before the Raid Egg hatched. I headed straight to *Brassed Off* so I could cower under the cover of the bandstand. There was one person already present. Hood up and over his head, he didn't see me coming. I made him jump when I closed my umbrella.

"Sorry," I apologised. "Rain's just awful."

"It is," he agreed, lowering his hood revealing a man in his late thirties. He was leaning back on the bench, phone in hand. "You here for the EX Raid?"

Over his shoulder, I could see he was in the middle of catching a *Zigzagoon*.

"I am," I responded tentatively. "Have you done many of these?"

Figure 86 – Zigzagoon (#263)

"Whenever I can. The times can be difficult to work around though."

"Yeah, I'm supposed to be in work now," I confessed.

He laughed and said, "Me too."

Now safely out of the rain, I folded my umbrella away and found my phone to get myself ready for the battle. There was still time before 3:30 but I wasn't entirely sure if I needed to do anything beforehand.

"This is my first EX Raid," I admitted. "Do I need to do anything specific?"

"No, not at all. It's just like any other Raid."

I didn't need to admit I hadn't done many Raid battles compared to other Pokémon GO players as he seemed to sense my lack of confidence.

"Have you fully healed all your Pokémon?" he asked. "You don't have many healing items left. Spin these Photo Discs here to get some potions and revives. Use them to heal up your strongest Pokémon. When it starts, I'll show you what to do if you need help."

"Thank you," I said gratefully. I acquired the necessary items and used them on my *Snorlax* and *Bellossom.*

"What team are you?" he added.

"*Team Instinct*."

"The underdogs," he joked. "It's *Team Mystic* for me all the way."

I knew *Team Valor* and especially *Team Mystic* were more popular than *Team Instinct* but I never understood why.

Now nearly time, other players joined us under the cover of the bandstand. First to join was a man in his late twenties. The second was a pair of players, a man and woman in their fifties, who I couldn't ascertain whether they knew each other beforehand or had just met. The final player was a girl in her early twenties.

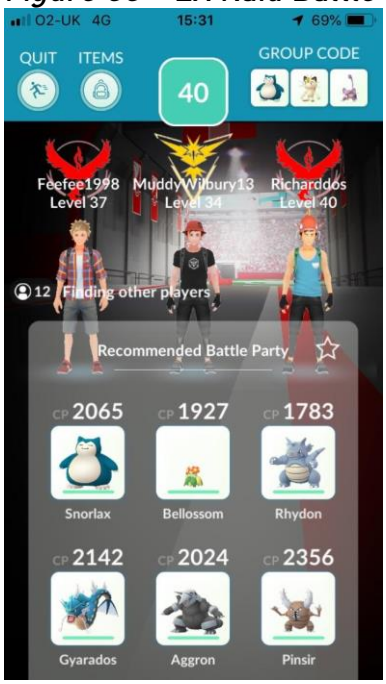
It made me wonder, what other circumstances could bring such a diverse group of people together with one common goal in this particular place?

There wasn't much time for chatter as it was now 3:30. The egg hatched to reveal a *Cresselia* (Figure 87). It was a legendary Pokémon, rare and had limited release within the game. Only available through EX Raids at this

point, I had never caught one. So I was desperate to add this to my collection.

Figure 87 - Cresselia (#488)

Figure 88 - EX Raid Battle Lobby



The lobby (Figure 88) indicated there were twelve players taking part in the Raid. There were six of us in my group but some were holding two devices and so had two accounts. Looking through the rain, I could see a smaller group huddled under a tree.

Out of the twelve, I was the lowest level, which I expected since experience could be gained through Raids and I had done so few Raids. Two of us were *Team Instinct*, the others split evenly between *Team Mystic* and *Team Valor*.

The battle began!

Cresselia had no hope of winning. The twelve of us took down the *Cresselia* with ease. It did knock out my *Snorlax*, *Bellossom* and *Rhydon* but I had plenty of healing items. Now this meant each of us had a chance of catching our own *Cresselia*. I used berries and curveballs but today was not my day. Unfortunately, I used up all of my Premier Balls so *Cresselia* had evaded my capture. I was disappointed but I knew it was a longshot and there would be another opportunity at some point in the future.

At the end of the battle, the groups disbanded. Everyone congratulated those who were successful, bade their goodbyes, and ventured out in the rain. The player who had arrived first and I were the last ones to leave the bandstand.

“How long have you been playing Pokémon GO?” I asked my new friend.

Clemont

I started playing about six months ago. The game is a bit different now compared to when we first started. I remember the first week. The weather was glorious and literally everyone was playing. There was this Pokéwalk organised by someone on Facebook. They were rallying to get as many players to Parson Cross Park as possible. Man, it worked. I went with some friends and there must have been over a thousand people there. We did this almighty walk around the park catching as many Pokémon as we could. It lasted a few hours but some without kids stayed out longer, moving onto town or another place. What was cool about it, the park is a bit dodgy. You wouldn't go at night. But that evening, it just felt safe. Everyone there was so cool. I'd never seen so many people in the park before. It was such a great sight to see. It happens now but on a much smaller scaler.

"That's so cool," I remarked.

After a few moments of conversation, we parted ways.

"Good game. See you later!" he said, dashing out from the cover and into the pouring rain.

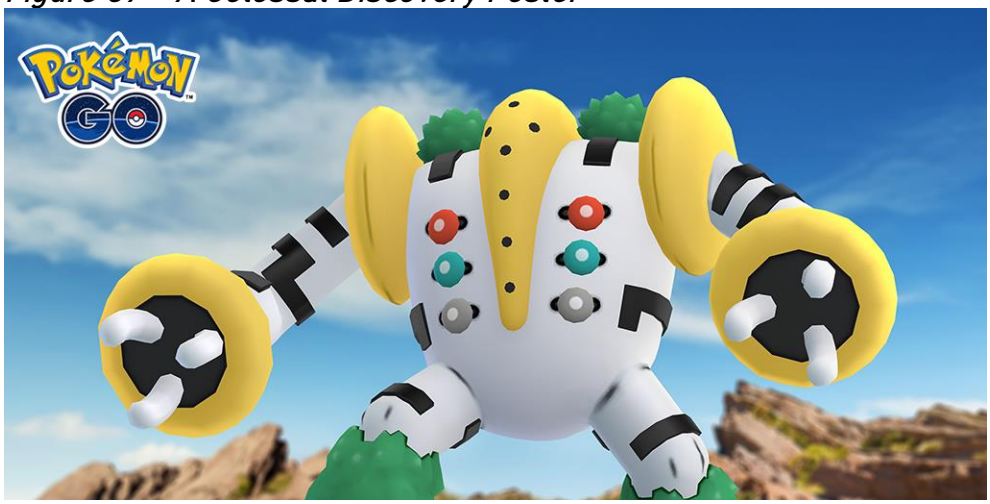
I checked I had all my things and followed. As the rain continued to soak my entire body, I thought about my game level. Does it really matter if I'm not the highest level?

Episode 2.e – Limited Events Tutorial

Greetings, Pokéfans!

There's a colossal discovery awaiting every Pokémon GO player across the world!

Figure 89 – A Colossal Discovery Poster



Your enthusiasm has inspired me to do some more research of my own and I think I've come across something...ground-breaking!

I was taking a stroll through Dewford Cave with Steven Stone and I found some remarkable markings carved deeply into the cavern walls. They looked random at first but then I could swear I had seen them somewhere before. It was a pattern of seven dots. What could it be?

Let's find out!

There are always new discoveries within the world of Pokémon and you can help. Special Research stories like this only occur once in blue *Munna* so ensure you collect your pass and meet your friends in the community to uncover the mysteries together.

Let's GO!

Professor Brier

Episode 2.f – Discord (1)

Discord

Aggamo	Who's gonna up for doing this? A Colossal Discovery? I am actually looking forward to this!
BroccoliPete	What time does it start? Depends on how much free time I'll have that day
Foxman15	Most likely I'll be doing it
Aggamo	11am. Do we need to try and get a raid group together for it?
Foxman15	I'd like to follow a group, but I dont think I'm available until after lunch, and i assume people will want to get going asap
LunaSheff	I suspect this will be fairly popular. If there's a group that starts at 11am, no doubt a few more groups will organically start later on in the day. I imagine catching a Regi- will be a task, quite possibly all three if it's anything like the mainline games.
Foxman15	I don't remember the regis from raids very well, were they nice big groudon-esque throwing targets? I was a noob, did maybe 2 regirock raids and caught neither
LunaSheff	Yes, but they were also moving a lot those mf
YouDidit8	I do remember *LunaSheff* showing me in my first raid tho
LunaSheff	At the baptist?
YouDidit8	Yep
BroccoliPete	Will we have limited raid passes?
LunaSheff	Probably
Aggamo	that's why I was suggesting we organise a raid party - you don't want to waste the opportunity for free passes
Notquiteready	Have you seen this on The Silph Road [link]. In the game master giga impact is 9000 damage
Pikatissue	Are you sure? The changed it back from 9001?
LunaSheff	Fast move is 0 damage and 50 less energy per turn than yawn?

Notquiteready	Still better then rock smash with yawn
Pikatissue	9000 power is defo a placeholder. I'll report it.
YouDidit8	Let's just hope they forget about it
HarrySnores	How many people are wanting to actually do this lol me and girlfriend got it, it more then certain requires raiding so just wanting to join anyone if they are doing it?
BelieveYouMe	My partner and son have bought these and are looking to join a group for the day. If anyone is interested in joining we will probably start at Weston Park!
LunaSheff	I'll organise an S11 group.
Aggamo	Where are people thinking of starting? Weston, cathedral? Just find a big horde of people?
Notquiteready	Worth noting that if we get the traditional cloudy weather, Machamp is the best for all three.
LunaSheff	I'm lazy so I'll just stick with 'Beaty McSmashface'
Aggamo	So will everyone be starting by the cathedral or will there be a Weston group too? Don't want to meander down to Weston only to find no one's there!
Kodak99	I've negotiated day release for this. Thought I'd start at Weston and maybe head townwards as required.
Notquiteready	Me and my friend are starting at Cathedral tomorrow
Aggamo	I'll rock up at Cathedral at 11 and see who's around

Episode 2 – Discussion

The accounts in Episode 2 represented my various attempts to diversify my Pokémon GO gameplay experiences to become a more established player. Encouraged by Cilan in Episode 1, Episode 2.a showed how I entered the Pokémon GO online community, which culminated in the creation of my own The Silph Road account. Episode 2.b introduced the Raid gameplay mechanic, which featured prominently throughout Episode 2 and returns in future episodes. Intent on taking part in Raid battles, Episode 2.c and Episode 2.d highlighted my Raiding experiences at Weston Park. Finally, Episode 2.f was an extract of a conversation from Discord of players coordinating their gameplay relating to a special story event, named *A Colossal Discovery*, which was introduced in Episode 2.e.

Within this section, I draw on key themes within the data and apply the analytic lenses (as outlined in Section 3.6) in the following way:

	Lens 1 Play and playfulness	Lens 2 The experience with(in) space	Lens 3 The influence of space
Knowledge Distribution		☑	
Maps and Play	☑		
Encounters	☑	☑	
Leaders and Reciprocity		☑	☑

Knowledge Distribution

Episode 2.a highlights the importance of knowledge construction and distribution within online spaces for play for players such as *EasyPeasy23.* The affinity space of this player includes Discord and The Silph Road, which enable him to play competitively (Mardell et al. 2016). Episode 2.a demonstrates Discord has features of a nurturing affinity space (Gee and Hayes 2012). Through joining Discord, Episode 2.a showed how being a member of an affinity space can lead to additional sources of information. *EasyPeasy23* uses Discord to recommend The Silph Road to other

players. His actions allow players to acquire dispersed knowledge, which is "knowledge that is not actually on the site itself but can be found at other sites or in other spaces" (Gee and Hayes 2012, p. 17). My interaction with *EasyPeasy23* illustrates how playful affinity spaces accommodate learning. *EasyPeasy23's* suggestion led me to the website, extending my reach within the online Pokémon GO community, influencing how I engaged with Pokémon GO.

Maps and Play

The Nest Atlas (Figure 73) is a prominent feature on The Silph Road. The map allows users to record sightings of Pokémon, confirm sightings of other players, and record the location of Wayspots in order to create a fully interactable Pokémon GO map that anyone can access. This feature highlights the importance of maps and mapping for play within online and offline spaces for play and offers an opportunity to understand the playfulness of Pokémon GO. Players add data to the Nest Atlas when a new Pokémon is located, which can then be verified by other players. This enables players to plan and coordinate their gameplay. The coordination of gameplay in this manner is particularly interesting. Episode 1 showed players can embody the *flâneur/phoneur* and *dérive* (de Souza e Silva and Hjorth 2009). However, when players plan and coordinate their play by purposefully making visits to specific locations for the purpose of play, this does not fully align with these concepts. In these contexts, players embody a more serious, but still playful character, indicated by the competitive and completionist behaviour (Mardell et al. 2016). This data is collected by volunteers for the benefit of other players. By collecting and recording this information, this indicates "everyone can, if they wish, produce and not just consume" (Gee and Hayes 2012, p. 12). The fan created website has a range of features, which highlights how expansive the Pokémon GO community is. Quantitative data is collected by players across the globe, such as the number of people who have recorded their meeting through face-to-face handshakes and the appearance of Pokémon on maps. This information is available for all players to access.

Furthermore, all players, no matter their position within the game, can contribute to the collection of this data, if they wish to do so. Playful altruistic behaviour (Mardell et al. 2016) provides players across the community an opportunity to benefit from each other's knowledge of Pokémon spawns and nests, which allows players to coordinate their gameplay. The diversity of information available on The Silph Road also exemplifies there are "different forms and routes to participation" (Gee and Hayes 2012, p. 20) and that the autonomy is central to the play experiences of Pokémon GO players (Mardell et al. 2016). For example, *EasyPeasy23* intends to collect data on handshakes. Other players may choose to populate the Nest Atlas with sighted Pokémon or contribute in any other way.

It is not possible to discuss all the features of The Silph Road in this study. Given the depth of the website, this could be its own study. Here, I focus on the affordances of mapping. Lammes and Wilmott (2018) argue games that use everyday maps "hybridize the map (as a game-board) with the playground (as an area for touring)" (p. 653). This suggests gameplay disrupts the cartographic logic of the map, which they argue offers new possibilities for the player to "renegotiate spatial relations" (Lammes and Wilmott 2018, p. 653). However, they suggest this does not extend to Pokémon GO as this location-based game uses a heavily stylised map, characterised by the lack of road names for example. The data in this study indicates that Pokémon GO, despite its stylised map, also heightens the affordances of mapping. The Silph Road demonstrates the sophisticated collaborative mapmaking abilities of the Pokémon GO community. This is further demonstrated through the players of Pokémon GO using the augmented map to navigate their real-world environment using the map from the game.

<u>Chance and Organised Encounters</u>

The autoethnographic accounts in Episode 2 relating to Raids illustrate that encountering and collaborating with other Pokémon GO players is central to play. It is important to make a distinction between Raids and EX Raids to understand how players experience space. Regarding Raids as shown in Episode 2.c, the initial one-hour countdown signals to players when the Raid Boss is available, ludically

charging the space (Giddings 2009). This provides a warning to nearby players of what time they must be at the real-world location. Once a player joins a Raid, the lobby activates a two-minute window allowing other players to join. This additional window enables all players to take part in the same battle. Because Raid Bosses have different difficulty levels, some are impossible to defeat solo and therefore collaboration is essential. In Episode 2.c, I was the only player in the Raid and I was disappointed not to have been able to collaborate with other players. This was my purpose for visiting Weston Park on this occasion. The data in Episode 1 suggests location-based games encourage chance encounters (de Souza e Silva 2006; de Souza e Silva and Hjorth 2009). In Episode 2.c, I was relying on a chance encounter, which did not manifest in this memory.

I argue that location-based games can enable organised encounters through the EX Raid feature. When it is not possible to connect with other players during a Raid, EX Raids provide players with a second opportunity to collaborate as shown in Episode 2.d. Tickets to these Exclusive Raid battles are earned once a player has defeated any Raid at a designated Gym. Because multiple players receive tickets to the EX Raid, there is a stronger likelihood other players will be present. My experience with a Raid in Episode 2.c contrasts with my experience of the EX Raid in Episode 2.d. At the EX Raid, I met a fellow player named Clemont and defeated the Raid Boss with twelve other players in total. During the Raid, this created a dynamic, active and playful space as all twelve players were united with a common goal (Gee and Hayes 2012). Through having a shared interest in the Raid battle, I formed a connection with Clemont. Upon noticing I was less-experienced than him, he supported me by ensuring my Pokémon were healed and I knew how to defeat the Raid Boss. Supporting other players is an element of the play experiences of Pokémon GO players (Mardell et al. 2016). At the bandstand in Weston Park, I spoke to no other players but Episode 2.d shows how all players interacted through the game, within the same shared space, to defeat Cresselia. There was no verbal communication between players as communication was expressed through our actions within the game. Players taking part in the Raid differed in player experience level, resulting in higher level players contributing more to the battle.

The support and assistance of more experienced players is demonstrative of a nurturing affinity space (Gee and Hayes 2012). It is also important to note that EX Raids direct players to return to the site of the original Raid, in this instance, Weston Park. By encouraging players to return to the same locations of play regularly, this facilitates active place attachment (Oleksy and Wnuk 2017) in the same manner as dog owners walking their pets in the same parks (Lee and Shen 2013).

Leaders and Reciprocity

Clemont, who has played Pokémon GO consistently since its initial release, provides insight into the support processes within affinity spaces. He offers support and encouragement to unknown players with whom he collaborates, exemplifying a nurturing affinity space (Gee and Hayes 2012). Clemont's memory provides insight into how a player perceives the locations of Pokémon GO gameplay. He talked fondly about going on a Pokéwalk where hundreds of players gathered at a local park to play Pokémon GO. The presence of Pokémon GO players at the park changed his perception of the location. He felt safer even at night, which he admitted he would avoid on a normal evening. For Clemont, a gathering of Pokémon GO players created a safe and inclusive space for play, highlighting the continual construction of space (Massey 2005) shaped by those who occupy the space (Lefebvre 1991). Furthermore, Clemont's memory of the Pokéwalk is linked closely to a specific location, suggesting particular locations are entangled within memories (Vella et al. 2019). This indicates the space holds significance for the player's identity as a Pokémon GO player, linking to player preference for locations of play as discussed in Episode 1.

The use of Discord in Episode 2.f also illustrates how the roles of Pokémon GO players are diverse and fluid, corroborating Gee and Hayes (2012) in their description of nurturing affinity spaces. This episode is an extract of a Discord conversation, which I did not contribute to. There are ten different players aiming to coordinate their gameplay following the announcement of a special Pokémon GO event.

Figure 90 – Roles on Discord

	Number of Contributions	Role or Purpose of Contribution
Aggamo	6	To form a Pokémon GO group for the Colossal Discovery event
BroccoliPete	2	To ask questions
Foxman15	3	To announce intention to participate
LunaSheff	7	To answer questions and coordinate a group
YouDidit8	3	To support *LunaSheff*
Notquiteready	4	To promote The Silph Road
Pikatissue	2	To challenge information on The Silph Road
HarrySnores	1	To seek clarity on the formation of a group
BelieveYouMe	1	To advertise they will be starting at Weston Park
Kodak99	1	To inform of the intention to start at Weston Park

Figure 90 simplifies the roles in which players adopted within this extract. While this is only an extract of a longer conversation on Discord, the data indicates each contributor offered something slightly different to the conversation. *Aggamo* began the thread with the intention of forming a Pokémon GO group in order to collaborate with others for the mini event. They contributed throughout the extract to seek confirmation from other players. Other players such as *LunaSheff*, *BelieveYouMe* and *Kodak99* contributed in order to support *Aggamo* in the creation of a group. Within this exchange, *Notquiteready* signposted to The Silph Road, exhibiting how the use of dispersed knowledge is facilitated (Gee and Hayes 2012, p. 16). The information on The Silph Road is challenged, especially by *Pikatissue*, highlighting how interaction transforms the content of the discussion (Gee and Hayes 2012, p. 13). Through this interaction, the information deriving from The Silph Road is critiqued. *Pikatissue* stated they would report this misinformation back to the original source, indicating how important it is for the correct information to be available for players. The most dynamic contributor is *LunaSheff*, who alternates between answering questions, critiquing The Silph Road data and forming a group. The contributions of *LunaSheff* indicate the reciprocity of roles (Gee and Hayes 2012, p. 21) within an affinity space. This short extract demonstrates the diversity of

Pokémon GO players and the eagerness to connect and interact with other players within the community at real-world locations.

Episode 2 – Summary

Episode 2 shows how online spaces contribute to a player's understanding and experiences of offline spaces. Gameplay features such as Raids, EX Raids, and special events (A Colossal Discovery) provide a framework for both chance and organised encounters within real-world locations. Through bringing players repeatedly to the same real-world locations, the spaces for play develop significance for players. Episode 3 highlights how Pokémon Gyms enable players to learn more about the built environment and view the real-world through a playful lens, as opposed to forming a barrier.

Chapter 6 – Episode 3: GO Fest Dortmund 2019

Figure 91 – Westfalenpark Map

Episode 3 - Introduction

My Pokémon GO adventure eventually culminated in me travelling to Dortmund, Germany, with the sole purpose of playing Pokémon GO at a special international event (Figure 91) with hundreds and thousands of people. The visit to Dortmund changed me, not just in terms of who I was as a Pokémon GO player but who I was as a researcher.

This was a turning point for me.

Episode 3 explores how players navigate and explore their environment through Pokémon GO and how the game has the power to unite its diverse playerbase.

Episode 3.a – GO Fest Tutorial

Greetings, Pokéfans!

Community Days and Raid Battles are only the beginning ... you are cordially invited to Pokémon GO Fest!

These are special, annual real-world events or festivals that bring Pokémon GO players from all over the world to one location to battle, trade, and catch rare Pokémon exclusive to the event.

First hosted in Chicago, Pokémon GO Fest began in 2017 and returned in 2018. In 2019, for the third anniversary of Pokémon GO, the event was extended to other exciting places! How marvellous!

June 2019 – Chicago, USA
July 2019 – Dortmund, Germany
August 2019 – Yokohama, Japan

Now, more people than ever before can take part across the whole world! Let me tell you some details about Pokémon GO Fest Dortmund. The venue for GO Fest Dortmund is Westfalenpark, a 70-hectare inner city park and perfect for the Pokémon GO experience! The expansive park has lakes, ponds and water features as well as fields, wooded areas, and picnic areas. There are playgrounds, a cable car, and a mini train. There are cafes and toilets. There is also a large rose garden! Perhaps you will find a *Roselia* nest ...

Figure 92 - Roselia (#315)

Figure 93 - Florian Tower

Overlooking the whole park is the Florian Tower, a 220m high television network tower (Figure 88). From the top, you can view the city but this attraction is not available during Pokémon GO Fest unfortunately!

To join GO Fest, players, you must register your interest within your game. Through this process, you will be entered for a draw. If successful, you will receive a notification indicating you must pay the registration fee (around £30) and choose which day within the event you want to attend. You can also invite three other Great Friends from your friend list so you don't need to travel alone!

It is going to be an unbelievable experience. I wonder which Pokémon are likely to appear...

Let's GO!

Professor Brier

Episode 3.b – Platz von Hiroshima

By the time I had deposited my luggage at my hotel, it was 6pm and I was walking around Dortmund centre ready to see what the city had to offer.

As I was wandering aimlessly around the city centre, a cluster of PokéStops with lures caught my eye on the augmented map. It was only a five-minute walk from where I was so I headed in that direction to take advantage of the additional Pokémon that would spawn in that area. The three PokéStops were linked to different memorials on a square named Platz von Hiroshima (Figure 94). There was a set of benches positioned in the middle of the square so I sat there to benefit from all three lures at once. Already sitting on one of the benches was a pair of players.

Figure 94 - Platz von Hiroshima

I hesitated, unsure whether to acknowledge I was a fellow player.

"Are you here for GO Fest?" I asked the couple tentatively after a few moments.

"Yes," the girl replied confidently. "We arrived just a few hours ago. It's such a good spot here, isn't it? All three Stops at once. That's why we put down the lures."

I sat down at the end of their bench.

"Thanks. I'm Ben by the way," I added before the conversation went on for too long and we didn't know each other's names.

"I'm Dawn," the girl said, pointing to herself. "This is Max."

Max was sitting next to her. He nodded and smiled.

"Where are you from, Ben? You sound northern?" Dawn guessed.

“Sheffield. Just arrived today too. Did you both come together?” I asked.

“We’re in the same Pokémon GO group back home,” Dawn replied. “We’ve been together for two years.”

I didn’t ask but I would guess the couple Dawn and Max were thirty, roughly the same age as me.

Max smiled politely again. “What team are you?”

It was the question that inevitably would be asked. Prepared to defend the honour of my team, I replied defiantly, “*Team Instinct*.”

“Thank God,” Dawn said with a breath of relief.

“Really?” Max said in shock. “We hardly meet any other Instinct players.”

“You’re both Instinct?” I asked hesitantly.

Max nodded and said, “*Team Instinct* all the way.”

A bond formed.

“I’m actually doing some research on Pokémon GO,” I stated. “It’s a part of my university project. Do you want to know more?”

Max, who had meandered a few metres away to be closer to a lure, said, “You’re doing research? You’re a real Pokémon researcher?”

“I suppose,” I said, embarrassed yet proud. I passed around my contact cards.

“These are awesome,” Max said amusedly. “Your username is brilliant.”

“Thank you,” I said, my embarrassment growing.

“I love *Politoed*,” Dawn giggled. “These cards are really cool. So what are you actually researching?”

I summarised my research and explained how they could include their memories in the project if they wished. Both eagerly agreed so I heard their stories.

Episode 3.c – Dawn and Max

Dawn

Figure 95 – Dratini (#147)

My favourite Pokémon GO memory? Gosh, I'm not sure. I do always think about one particular night. I used to go out late at night, around 9pm when the last bits of sun were out to play the game. In my village, it's safe to go out and while there aren't many PokéStops, the few we do have are spaced close together so it's a nice walk. One night, I decided to put up a lure with the hopes of catching a Dratini *(Figure 95).*

It was completely quiet, about 10pm at night. I was on one of the benches in the empty village square. I put on the lure and waited for Pokémon to appear, keeping my fingers-crossed for the Pokémon I wanted. Even some Doduo *would suffice. But the weirdest thing happened. After a couple of minutes, I heard voices chattering somewhere to my left. I wasn't scared but I admit I did feel some anxiety since it was so unusual to hear people out this late at night. I heard one of them say something like "it's this way - hurry!" and the footsteps became louder. A group of four emerged from around the corner and they hovered in front of a shop. They didn't see me on the bench.*

"Who put this … lure down?" someone asked.

It was like they didn't want to use the vocabulary. We're fine saying this stuff now but back then, people weren't used to asking strangers questions like that. Both groups still hadn't seen me. I wasn't hiding as such, but it was dark and I had covered my phone so my face wasn't lit up. I've never been the most outgoing person. A big part of me at the time did want to hide in the shadows but something came over me. I realised they were playing Pokémon GO like me and had come to that spot because of the lure I had placed, just like you coming here today in fact. The lure was like a homing beacon for Pokémon GO players.

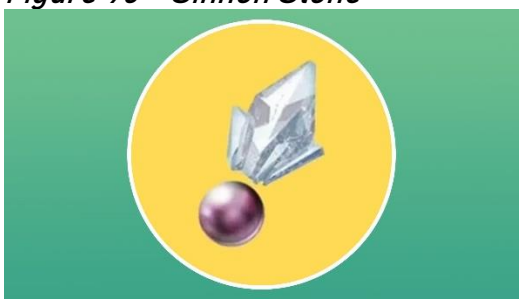
I gave a minute cough to announce my presence and said, "I did. I'm looking for a Dratini."

The rest of the conversation was so weird. Me and this eclectic bunch of people were talking about Pokémon in such a casual way. It's normal now but then, it was just weird. We ended up circling the village three or four times in search of a Dratini. *And you wouldn't believe it. Just as we were breaking apart, one appeared. A* Dratini *actually appeared. We all cheered and used Ultra Balls to capture it. It was such a rare Pokémon then. We were that loud when we cheered, someone called out of their window telling us to shut up. But we didn't even care. I caught one and I still have it. It's now one of my favourite Pokémon because it reminds me of that night. That night, that's when Pokémon GO meant something more to me. It is more than just a game to me. I had met other players and I'd never had so much fun before. Now look at me, still playing and in Germany of all places!*

Max

I always remember when the Sinnoh Stone *(Figure 96) was released.*

Figure 96 – Sinnoh Stone



It allows you to evolve certain Pokémon. It could be used on Pokémon that I'd had for months and months thinking they couldn't be evolved any further. Togetic (Figure 97), *became available in the game around the beginning of 2017 and I thought that was it.*

Figure 97 – Togetic (#176)

Figure 98 – Togekiss (#468)

I didn't know it could evolve further. When the Sinnoh Stone *came a year later, I could use it to get a* Togekiss (Figure 98), *which I think is an awesome Pokémon. The items were rare though so it generally meant I played the game a lot more. It made me search for other players to collaborate. Some other guys in my GO group wanted to do some Raids and take over some Gyms so we went to Dawn's village. The problem was, most other players in my group were* Team Mystic *or* Team Valor *so taking over Gyms was a bit pointless. You couldn't do it properly unless you had other players on the same team.*

One of my favourite Pokémon GO memories is when I met Dawn's Pokémon GO group for the first time. That day, about twenty GO players from different teams and villages merged together. You could see amongst everyone there was rivalry. As soon as a Gym was taken over by Team Valor, *it was being conquered by* Team Mystic. *Ultimately, we still had the same goal to catch 'em all and these* Sinnoh Stones. *Everyone ended up going to the pub after what must have been three hours of gameplay. I looked over Dawn's shoulder and I could see she was trying to take down a* Team Valor *Gym all by herself. You know what it's like being in* Team Instinct. *You can't do anything by yourself. I immediately joined in and the two of us took over the Gym with ease. We didn't talk at all while we played. We just had this shared understanding of what to do. It was weird.*

Episode 3.d – Pokémon Gyms Tutorial

Greetings, Pokéfans!

I hope you have been keeping up your Pokémon studies between these tutorials!

You've probably visited Gyms to do a Raid or two since we last learned about them. However, Gyms serve a greater purpose than just hosting Raids! Let's inspect one to find out more. Gyms are represented as large towers on the overworld map (Figure 99).

Figure 99 - Gym (Map View)

Figure 100 - Team Instinct Gym

The colour of the tower represents the team who currently controls the tower and the Pokémon you see on top was the last Pokémon placed there to defend it. If you can see a big tower on your map, you can click onto it to inspect it.

In Figure 100, the name of the Gym can be located at the top of the screen. The Photo Disc to spin, if you are close enough, is in the bottom left. In this Gym, there are currently two Pokémon defending the Gym for *Team Instinct* (*Aggron* and *Snorlax*). There are lots of benefits to defending a Gym. If you defend it long enough, you might earn some PokéCoins, which can be used to purchase more Pokéballs and healing items.

The purpose of a Gym is to control and defend them!

If the Gym is empty, you can deposit your Pokémon there. To do this, simply get within range like you would a PokéStop, inspect and you can deposit a Pokémon of your choice. Other players from the same team can do the same so there can be a maximum of six Pokémon of different species from six different players defending a Gym. The more the better.

Of course, if the Gym is being defended by another team ... you have a battle ahead of you! You can challenge the current defenders of a Gym to a battle. Should you succeed in your battle, you will knock out the defenders, leaving space for you to deposit your Pokémon.

With battles, you'll need to learn your type effectiveness (Appendix 11). Don't go thinking you can use your best Ghost-type Pokémon against that *Snorlax*! It just won't be effective!

You can also earn Bronze, Silver and Gold Gym badges showing your successes, which save on your personal record on the player menu!

Your Pokémon too could get knocked out by other challengers, especially if you don't keep up their motivation! You didn't think you could deposit a Pokémon and just leave it? No, you will need to feed your Pokémon berries, which you can do from anywhere to ensure they feel loved and ready for battle! You can see in Figure 100 that both *Aggron* and *Snorlax* have high motivation judging by their full heart gauges.

QUIZ TIME!

Question: ***Who is the leader of* Team Valor?**
Answer: ***Candela, of course!***

Well done, Pokémon trainer! Remember you can practice battling with your team leader, Candela, Spark, or Blanche.

Go out and get as many Gold Gym badges as you can! Take over a full city!

Professor Brier

Please find my observation notes below.

Professor Brier

The player was hovering outside his hotel, checking the contents of his rucksack to ensure he had everything he needed. He stored his water bottle at the bottom, being the heaviest item. On top, he carefully, yet fervently, packed other essentials such as a used German phrasebook, a multipack of croissants, special blister plasters for the heel of your feet, a phone charger, a notebook, and pen. He promptly put on his cap and sunglasses, tightened his shoelaces, adjusted the straps of the bag and off he went, vaguely north.

He didn't play Pokémon GO immediately, nor did he use a map. The player dawdled around the streets, looking through shop windows, looking at the different types of trees lining the streets, the tessellation of the paving stones and marvelled at how seamlessly Dortmund streets seemed to accommodate both pedestrians and cars. After twenty minutes, he had only covered a distance of around half a mile but this was when the player decided to consult Pokémon GO.

For a few moments, he swished his finger across the screen. Then he held his phone in front of him as though he was comparing his surroundings to what was on the screen. He was visualising where the Wayspots he could see on the augmented map were in real life. He crossed the road, phone lowered, and resumed walking. He was looking for something on the floor as his speed slowed. Found – it was a numbered plaque fixed onto the footpath. He took his notebook out of his bag and made a note before proceeding. The next time he stopped, it was in front of a large sign welcoming people into a small park. He swished his phone and turned into the park. He chose a seat in front of a large circular water fountain. The sun was reflecting off the water and the silver coins scattered across the bottom.

A few other people were scattered around the open space. Two elderly women passed straight through, using the park as a shortcut. Pairs of people were scattered under trees reading, chatting, sunbathing. The player was enjoying the shade, offering an excellent opportunity to catch a bunch of Pokémon.

A girl entered, looking puzzled. She went to the nearest person she could see and asked.

"Entschuldigung - wo liegt bitte der nächste Bahnhof?"

It was a question – a question the player clearly wasn't expecting. He looked up, perplexed.

"Sorry," she said, realising she had chosen the wrong language. "I'm trying to find the nearest train station. Do you know where it is? Oh..."

She saw Pokémon GO on the player's phone. She took off her large rucksack and settled on the bench next to him.

"You're a player? I'm desperate for a Shiny Kantonian *Geodude*. Do you have one spare?"

Still a little surprised, the player said, "Sorry, I don't."

"I've been looking for one for months and months but I don't have any luck at all. They are supposed to be spawning at higher rates but all I seem to find is the Alolan form, not the Kantonian form. I'll get there. Are you here for GO Fest?"

Figure 101 - Kantonian Geodude (#074)

Figure 102 - Alolan Geodude (#074)

She sat back and began loading the game on her phone.

"My day is Friday," the player confirmed, tentatively making eye contact. "I came a few days early to explore the city."

"My day is Thursday but I did the same as you. I've not been to Dortmund before so I figured I'd take advantage and spend a bit more time here. I'm Iris. What's your name?"

"Ben. Nice to meet you."

"Nice to meet you too. Whereabouts in England are you from?"

Ben smiled, awkward yet impressed she could guess where he was from. Perhaps it was what he was wearing because he had barely said a word since she arrived.

"Sheffield. Where are you from?"

"Ukraine. My father's from Germany though. I love Germany. What other Shinies do you have? Fancy doing a trade? Oh... let's have a battle!"

Iris reached into her bag to find her charging pack. She didn't notice Ben's eyes popping with surprise at the energy of his new friend. It wasn't that she was unwelcome but it was taking a bit of time for the whirlwind to subside.

"Don't you have a train to catch?" Ben enquired after she had emptied the majority of the contents of her bag to find the charger.

"Yeah, but it's fine. I was only heading into town to find some other GO players. Perhaps we could walk there together? Come on, let's go."

Suddenly, she was on her feet again ready to leave.

Bemused, Ben followed.

"Have you noticed these weird PokéStops?" Iris asked as they walked down the street, perhaps more briskly than Ben would have liked.

"The numbered plaques? I saw a few earlier."

"Yeah, the Walk of Fame 100. Wonder what it's all about? Let's see how many we can find. There must be 100 of them. This is so exciting! Come on, let's cross as there's one over there."

Figure 103 - Walk of Fame

Appreciating the challenge of collecting or visiting all 100 PokéStops enticed Ben to quicken his pace. Her energy was captivating.

"It's over here," Ben pointed.

The pair stood shoulder to shoulder gazing down at the plaque.

"This is cool," Iris said gleefully. "Let's find some more. Let's go this way though as there's a Gym over there."

The Gym was a five-minute walk away. The street was quiet with only the occasional car passing by. The trees lining the path provided shade from the sun, vital since it was edging closer to midday. When the pair arrived at the Gym, they found it was a local café.

"You're Instinct?" Iris commented. "Help me take down this Gym and let me take it over and I'll trade you something special."

Ben agreed so he set his most powerful team against the *Team Mystic* Gym to allow Iris's *Team Valor* Pokémon to take over.

"Yes! Thank you! I'm trying to get as many Gym badges as possible. Let's sit and get a coffee. We should get an iced coffee. It's so warm now, right? But it's up to you. What do you think?"

Realising she was perhaps taking charge a little much, her voice quietened. By this point, Ben found his new companion quite amusing and he appreciated her enthusiasm.

"Absolutely, let's get a drink!"

After ordering, Iris set about feeding berries to the Pokémon stationed at various Gyms.

"Woah, how many gold Gyms badges do you have?" Ben asked, noticing the long list of gold Gym badges.

Iris

This is what I do. I love collecting gold Gym badges.

It started in my local town. I would always make sure I passed the Gym on the way to work so I could position my Pokémon there. I felt, you know, territorial. It is my town so the Gym should belong to me. By me, I mean my team, but I love stationing my Pokémon there.

Eventually, I had gold Gym badges for every Gym in my area so I used to take walking trips to the next village so I could take over theirs. Whenever I went into the city, I would go from Gym to Gym taking them down so I could put my Pokémon there. It's not all I would do though since I needed to be strong so I had to do Raids and catch more Pokémon but Gyms have been my thing.

So whenever I go to a new place, this is what I do. I find the Gyms and I take them over! I've found some really cool places in corners of towns and villages I wouldn't even think of visiting. It's awesome because the game keeps a record of all the places you've been to as well. Look at them all. When I leave a Pokémon in a Gym, I feel like I'm leaving a part of me there. Like now, I have Pokémon in seven Gyms in Dortmund and it makes me feel like I'm even closer to Dortmund. When I leave, I hope I can keep the Gym in my possession. There's this Gym near my hometown that I've had for nearly a year! I guess no other Pokémon players live nearby but even now, knowing my Pokémon is there makes me feel connected in some way.

"That's really cool. I've not ever really thought about that but I know exactly what you mean. I think I do a similar thing back in England."

"Do you feel connected?"

Ben took a moment to think.

"I definitely feel territorial and yes, it's a strange feeling. I can almost feel part of myself in that place. I'm never spread as thin as you are though. You have loads of Pokémon in Gyms!"

"I am a little obsessed," Iris admitted, tapping her phone. "Show me some of your Gym badges. I'd love to see some of the places you've visited."

Over the next twenty minutes, Ben and Iris shared stories of places they had visited. Ben talked about a weekend away in Barcelona for his partner's birthday and Iris used the radar map to show how she was attempting to conquer all the continents.

"South America next," Iris said, taking the last sip of her iced latte. "After this year, I hope to have finished my internship and spend a couple of weeks or months travelling. Quite far though."

"Good luck – sounds amazing."

"Thank you! Do you fancy coming into town now? I bet there's loads of players there. We could probably form a group."

Ben did consider but he had already formed plans to visit town later on that evening.

"I think I'm going to stay around here and continue exploring. Perhaps take over some Gyms. Thank you though."

"No problem! Wait! Before I go, let's trade! I'll keep the Pokémon to remember you by!"

"Good idea. What would you like to trade?"

After a few moments of deliberation, the trade was made. Ben was the proud owner of a *Cacnea* (Figure 104)

"Thank you for your company," Ben said as he tightened the straps of his rucksack again. "I've had fun."

"Thank you too! See you around!"

As quickly as she appeared, she was gone.

Ben left, continuing his new mission of taking over Gyms.

Figure 104 - Traded Cacnea

Episode 3.f – Steigenberger Dortmund

With my interest in Gyms peaked, I decided to track the ownership of a Gym and perhaps earn a gold Gym badge in the process. I wanted to see exactly how frequently Gyms changed ownership between the three teams, Mystic, Valor and Instinct. Since I had limited time, the most suitable choice was the Gym nearest to my hotel.

Figure 105 - Map of South Dortmund

On the southern outskirts of Dortmund city centre, my hotel, *Dorint an den Westfalenhallen*, was situated opposite another hotel called *Steigenberger Dortmund* (top left corner Figure 105 and Figure 106).

Figure 106 - Steigenberger Dortmund (Outside View)

Figure 107 - Position of Gym

Being a special point of interest, Steigenberger had been nominated as a Pokémon Gym within Pokémon GO. While at my hotel I was not situated close enough to battle or spin the badge for items, I was close enough to tap onto the Gym to see the occupying team. Figure 107 shows the street view of the road between the two hotels. The purple PokéStop in the

foreground represents my hotel and the egg of a Raid Battle starting in 56 minutes to the left represents Steigenberger.

What I discovered fascinated me.

On Day 2 of my visit, prior to meeting Iris, I made the following recording.

Figure 108 - Recording 1

Day 2
Time: 09:11
Team: Valor
Pokémon: *Machamp*
Dragonite
Golduck

I was very used to seeing Gyms dominated by the bigger teams, *Team Valor* and *Team Mystic*. I didn't challenge the Gym on this occasion as it was early on my first full day and I was keen to explore the city. Upon my return, I was *thrilled* to see the Gym was under the ownership of my team (Figure 109).

Figure 109 - Recording 2

Day 2
Time: 15:19
Team: Instinct
Pokémon: *Blissey*
Salamence
Slaking

Since I had already walked past the hotel and I was staying in for the night, I did not leave to offer my support to the Gym by stationing one of my strongest Pokémon. I felt guilty as later on that evening, when I logged into the game next, I recorded the following:

Figure 110 - Recording 3

Day 2
Time: 23:05
Team: Valor
Pokémon: *Blissey*
Togekiss

These were different Pokémon to the ones protecting the Gym first thing that morning but I didn't record the usernames of the owners of the Pokémon so I could not establish if they belonged to the same players or not. I vowed the next day to take down the Gym and claim it for myself and *Team Instinct*. I was not optimistic when I logged in the following morning. I recorded the following:

Figure 111 - Recording 4

Day 3
Time: 08:46
Team: Mystic
Pokémon: *Dewgong*
Blissey
Alolan Exeggutor
Blastoise
Gyrados
Dratini

During the late hours, *Team Mystic* had conquered the Gym and had stationed a full team of six. There were some weak links in the team such as *Dratini* who had only CP 189.

That afternoon, I left my hotel room and stood in front of the Steigenberger Dortmund hotel to be in range to attack. I attacked the Gym, taking more damage than I usually would when attempting to take over a Gym at home.

Then success!

I finally managed to conquer the Steigenberger Dortmund Gym! I took a screenshot and revelled in my success.

Figure 112 - Recording 5

Day 3
Time: 13:08
Team: Instinct
Pokémon: *Blissey* – mine!

Having watched the Gym intently over the last few days, I was thrilled to finally have one of my own Pokémon residing in the Gym. All my *Blissey* needed now was more *Team Instinct* players to deposit their strongest Pokémon at the Gym so we could defend it as a team. I headed back to my hotel room across the road, smug at my success.

My satisfaction was incredibly short-lived.

Within mere minutes, still logged onto the game, I received a notification to say my *Blissey* had been knocked out of the Gym and had returned to my party. I couldn't screenshot the notification as I was in shock.

Figure 113 - Recording 6

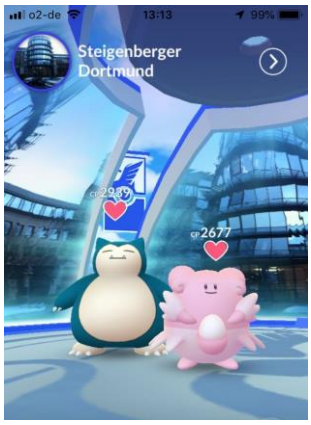
Day 3
Time: 13:12
Team: Mystic
Pokémon: *Blissey*

I was the Gym leader for a total of four minutes until I was rudely kicked out of the Gym by *Team Mystic* and by the same species of Pokémon I was using to defend the Gym! This was an extra kick in the teeth. I was prepared. I turned on my heel to go back to the hotel to kick this *Blissey* out. If any *Blissey* was going to reign, it was going to be mine!

Then I paused. A problem was developing.

Figure 114 - Recording 7

Time: 13:12

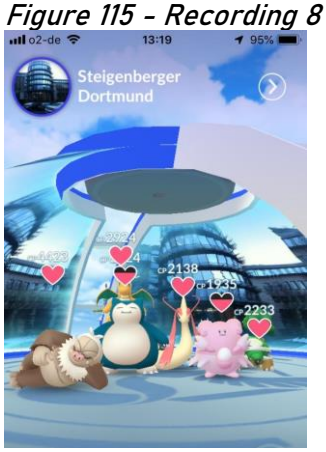


Time: 13:13

Time: 13:14

More and more *Team Mystic* players installed their Pokémon until a full roster of six was in position.

Figure 115 - Recording 8



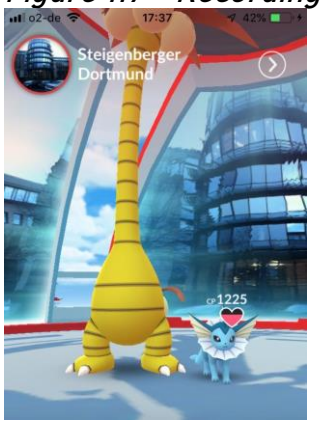
Day 3
Time: 13:12
Team: Mystic
Pokémon:
Slaking
Dragonite
Snorlax
Milotic
Blissey
Torterra

This was clearly well coordinated. A group of *Team Mystic* players had waited for me to take down the *Team Valor* Gym before destroying my *Blissey* easily and depositing a stronger, more powerful team to protect the Gym. I had used a lot of healing items in my first attempt to capture the Gym but I couldn't let it go so quickly. I began fighting back.

Figure 116 – Gym Battle

Using *Aggron* this time, the battle began with *Blissey*, the first Pokémon placed in the Gym and the same *Blissey* that had replaced mine less than ten minutes earlier. I barely made a dent in the team during my first battle. I initiated another battle but quit, admitting defeat. The team would just come back with a vengeance, costing me more in the long run. Allowing some time for my bitterness to pass, I checked on the Gym later that afternoon. I was very pleased to record the following:

Figure 117 - Recording 9



Day 3
Time: 17:37
Team: Valor
Pokémon: Shiny *Alolan Exeggutor*
Vaporeon

I saw a weakness in the team. There were only two Pokémon protecting the Gym so taking the Gym back would be a doddle compared to a full team of six. I considered heading back out to claim what I felt was rightfully mine but I backed off. At this point, I was more interested in what was happening and didn't want to get involved. Could a different fellow *Team Instinct* player capture the Gym?

By later that evening, *Team Valor* had lost control and *Team Mystic* were back in control.

Figure 118 - Recording 10

Day 3
Time: 22:58
Team: Mystic
Pokémon: *Snorlax*
Blissey
Abomasnow
Machamp
Gyrados
Slaking

All Pokémon had high CP values and it would be an even harder challenge to defeat compared to the team that had defeated me earlier in the day. The following day was my event day so I was unable to take multiple records. In the evening, I was expecting to see *Team Mystic* defending but it had once again changed hands. I was curious to know at what point in the day or night *Team Valor* had become victorious again.

Figure 119 - Recording 11

Day 4
Time: 20:13

Team: Valor
Pokémon: *Melmetal*
Togekiss

It was nice to see different Pokémon controlling the Gym as it did seem to be a similar roster of Pokémon used by different trainers and teams. I only had the evening left in Dortmund as I wouldn't have time to play in the morning. I checked the Gym one final time.

Figure 120 - Recording 12

Day 4
Time: 21:51
Team: Instinct
Pokémon: *Slaking*
Blissey
Dratini
Tyranitar – mine!
Gible

Team Instinct!

We had taken back control of the Gym. I flew out of my hotel room and positioned my newly evolved *Tyranitar* to assist my fellow team members. Seeing my Pokémon alongside other players was deeply satisfying after watching the Gym for so long.

It wasn't until Day 5 around 11am, long gone from Dortmund, when I received notification that my *Tyranitar* was back after a tough battle. It was a shame a part of me couldn't stay in Dortmund for longer but I accepted that no Pokémon in any Gym in Dortmund would last longer than a few hours. I was just pleased to have been a part of something special.

Episode 3.g – GO Fest Research

Figure 121 - Westfalenpark Entrance

Figure 122 – Medal Received

Figure 123 – Wrist Strap Received

Figure 124 – Directions

Figure 125 - Professor Willow's Messages

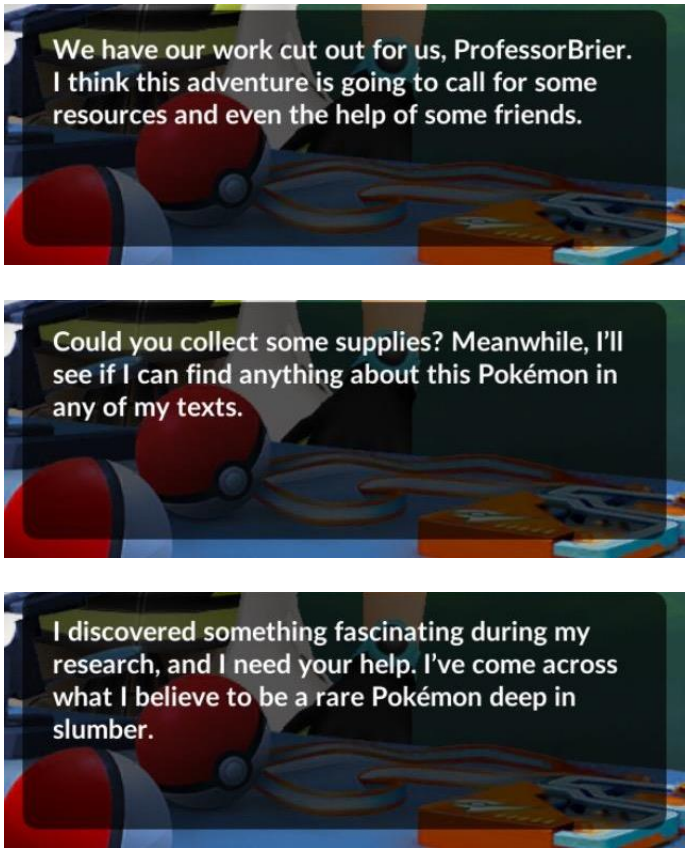


Figure 126 - Special Research (Task 1)

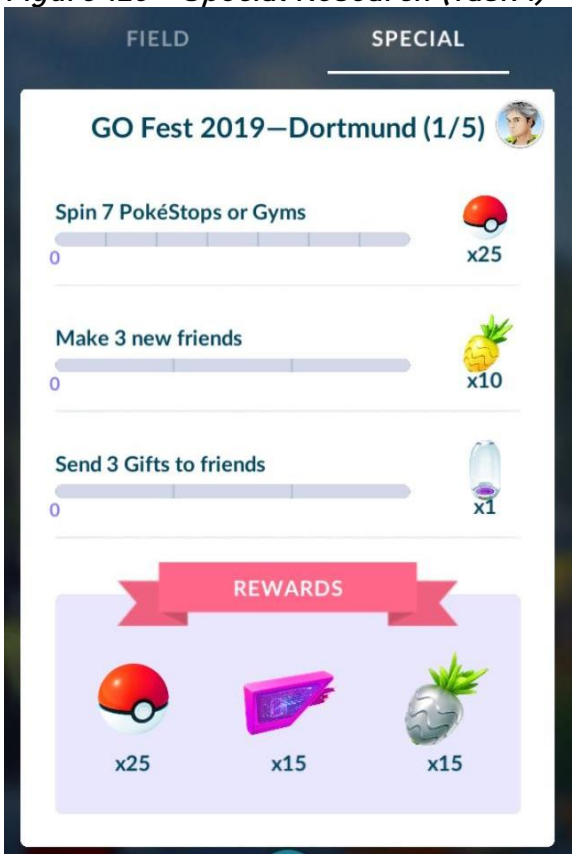


Figure 127 - Overworld Map (1)

Figure 128 – Drowzee (#096)

Figure 129 – Pinsir (#127)

Figure 130 - Route to the Centre

Figure 131 - Special Research (Task 2)

Figure 132 - Special Research (Task 3)

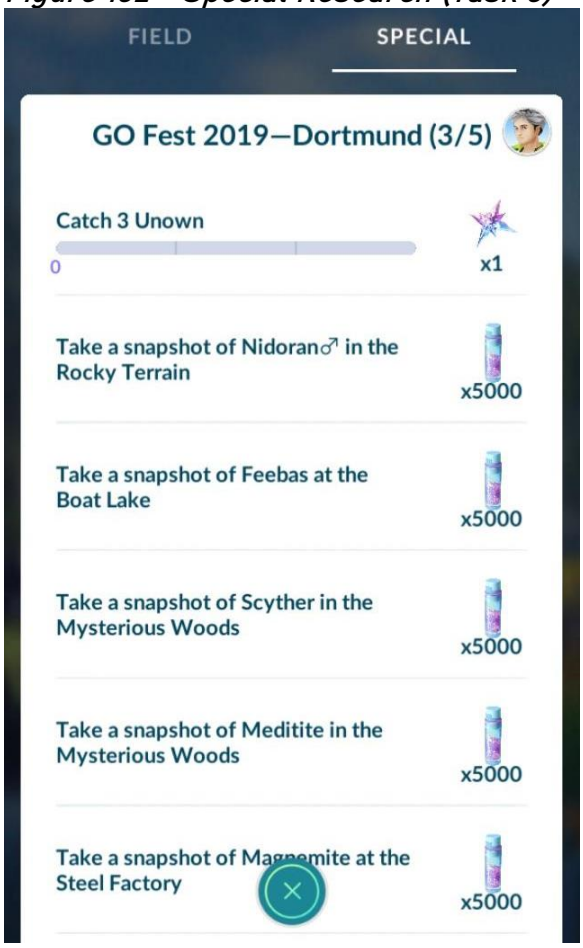


Figure 133 – Overworld Map (2)

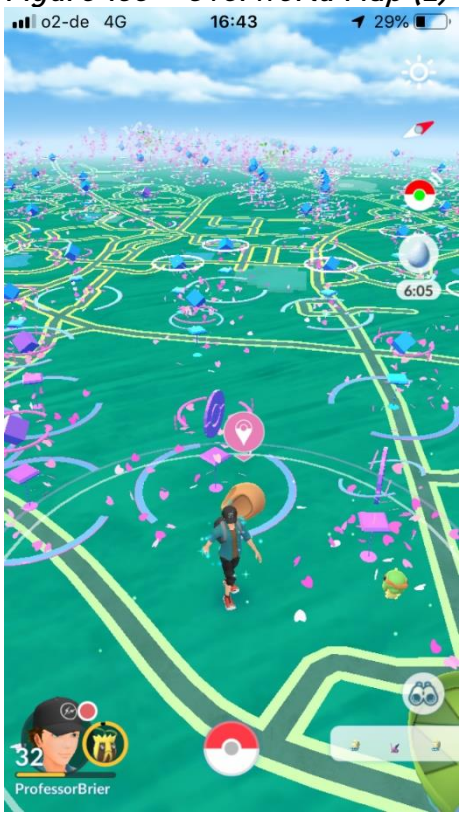


Figure 134 - Team Instinct Tent

Figure 135 – Team Instinct PokéStop

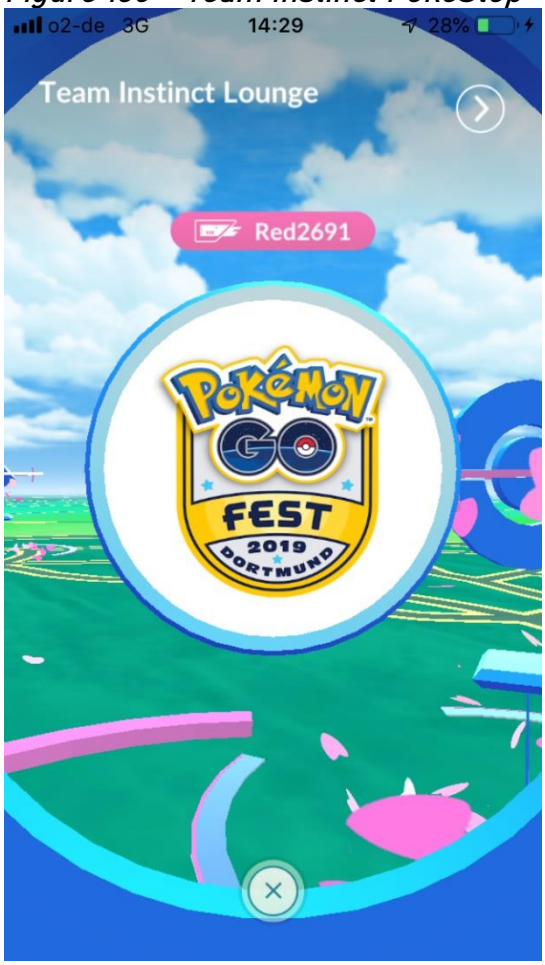


Figure 136 - Snapshot 1

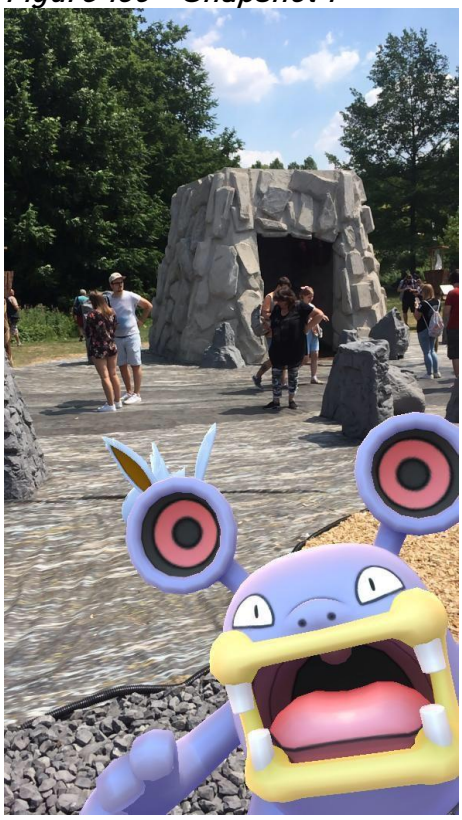


Figure 137 - Snapshot 2

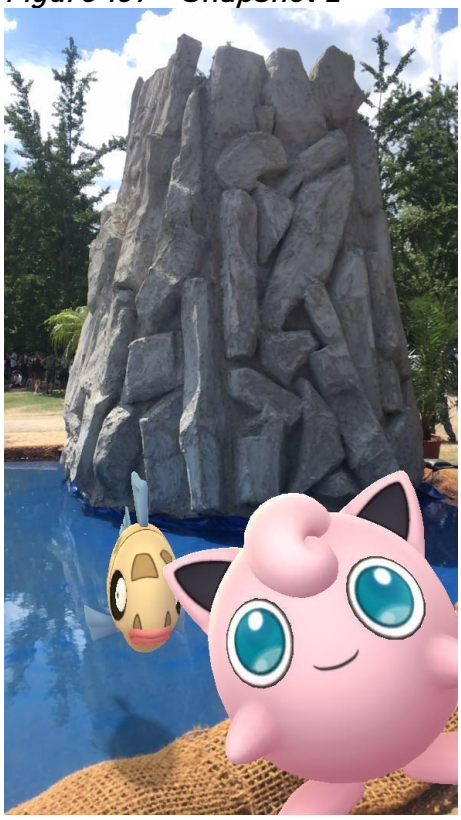


Figure 138 - Snapshot 3

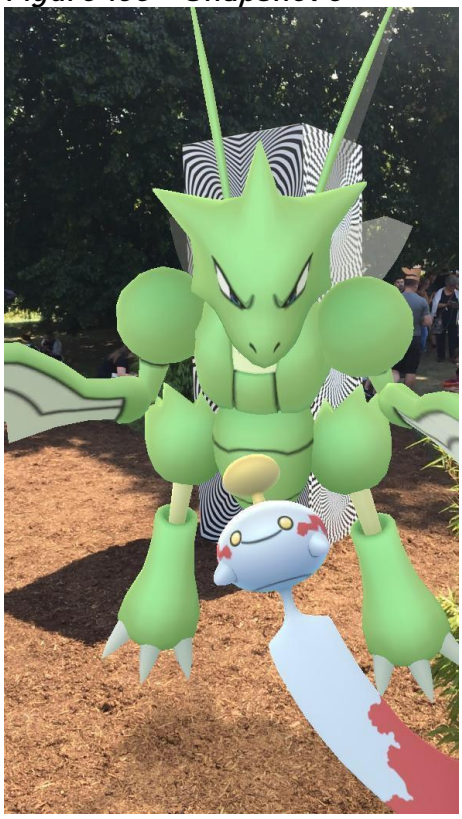


Figure 139 - Snapshot 4

Figure 140 - Snapshot 6

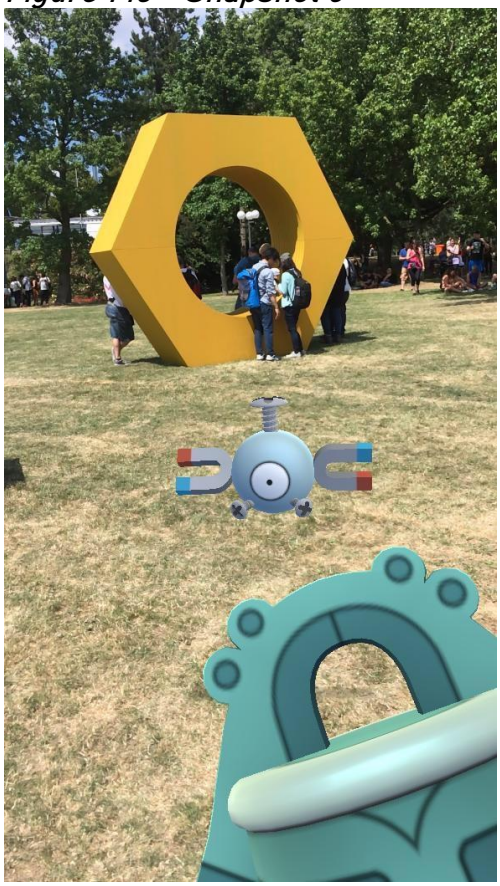


Figure 141 - Jirachi Encounter

Figure 142 - Jirachi Caught

Episode 3.h – Regional Pokémon Tutorial

Greetings, Pokéfans!

Have you noticed certain Pokémon appear in particular locations? You might think the appearance of Pokémon is random but this is not always the case. Certain places, or spawn points, attract particular types of Pokémon as shown in Figure 143.

Figure 143 - Spawns Points

Type:	Reported Increased Spawns:
Water	Ponds and Lakes Water Features
Fire	Petrol Stations
Grass	Golf Courses Nature Reserves
Electric	College Campuses Power Plants
Rock	Quarries Highways
Psychic	Hospitals
Bug	Golf Courses Nature Reserves
Ground	Parking Lots Airports

Poison	Wetlands Industrial Sites
Normal	Residential Areas (Day)
Dragon	Famous Points of Interest
Fairy	Churches Beaches
Fighting	Gyms Stadiums
Ghost	Residential Areas (Night) and Cemeteries
Ice	Bodies of Water Glaciers
Dark	Residential Areas (Night)

Some trainers also report particular species of Pokémon spawning at very specific sites such as *Slowpoke* at rivers. This means no matter where you live, you will have to explore different kinds of environments to find a variety of Pokémon!

Not only do Pokémon spawn more frequently within certain biomes, but some Pokémon are also *region exclusives* or *regional*. This means certain Pokémon will only spawn within a particular geographical region. Figure 143 shows the regional Pokémon within Generation 1.

Figure 144 - Generation 1 Regional Pokémon

Farfetch'd (#83)
Exclusive to Japan and South Korea

Mr. Mime (#122)
Exclusive to Europe

Kangaskhan (#115)
Exclusive to Australasia

Tauros (#128)
Exclusive to USA

QUIZ TIME!

Question: ***Which of these Pokémon can*** **Mega Evolve?**
Answer: ***In the Kalos region, giving*** **Kangaskhan** ***a Kangaskhanite*** **will allow it to Mega Evolve!**

Figure 145 - Mega Kangaskhan (#115)

Well done, Pokémon trainer! You are really starting to get to grips with the Pokédex! So remember, to complete the Pokédex, you not only need to explore your local area, but you will also need to think much bigger! Of course, you could trade with a friend or wait for a special event such as Pokémon GO Fest but can you be that patient?

Good luck discovering more Pokémon!

Let me know if you spot a certain Pokémon appearing in a certain location and I'll be sure to update Professor Willow.

Professor Brier

Episode 3.i – Trading Outpost

With the Special Research tasks complete and the rare *Jirachi* caught (Figure 146), I had accomplished the event's main objectives. However, there were still lots of Pokémon to catch, lots of Field Research tasks to complete, lots of Candies to earn, and plenty of Westfalenpark to roam around.

As I approached the Trading Outpost, I could see this was a popular spot. It wasn't large. Perhaps 20m x 40m in area with a picket fence perimeter, not so high so it could be stepped over. Despite this, players were still funnelling in and out of the two entrances. Within the Outpost, there were around ten tables with benches, one of which was staffed with customer service assistants handing out signs. The rest were taken up by players. It seemed I was the odd one out because most players were holding up signs indicating which Pokémon they were looking for and which ones they were willing to trade. There was a spare seat on one of the benches so I took it while I had the chance.

Figure 146 - Trading Outpost Signs

“You don’t have a *Pachirisu,* do you?”

It was the player sitting opposite me.

“No, sorry,” I said apologetically. On the table between us was a sign he had acquired from the staff. On it, he had crossed out the German “Ich tausche” which I assumed meant “I’m trading” and simply wrote “Need *Pachurisu*” (Figure 146). I didn’t mention his misspelling of the regional Pokémon.

“It’s very rare, isn’t it?” I commented. “Everyone wants one.”

“That’s all anyone is trading here. *Pachirisu* and Shinies.”

“You don’t have a *Pachirisu*. Oh, Ben, it’s you!”

It was a German player called James who I had met earlier in the morning whilst resting in the Team Instinct tent.

James had gathered around the table to read the signs.

“It’s crazy here. I just got a *Heracross* from a lady from Australia. I’m so pleased! Still looking for a *Pachirisu* though.

Figure 147 – Pachirisu (#417)

Figure 148 – Heracross (#214)

I took a proper look at the other player’s signs. He did not use the official signs given out by the staff. He had come prepared with colour printed A4 posters of the Pokémon he had to trade and which ones he needed (Figure 146).

“Have you caught *Carnivine* yet?” my friend asked. “I’ve been desperate for one! It’s one of the main reasons I came!”

Figure 149 - Carnivine (#455)

"I caught about a dozen when I was trying to find the Mysterious Woods," I replied. "I might go back and get a few more before the day's over."

"I'm catching loads of *Carnivine* here so I can share them with everyone at home who couldn't make it today. Shall we set up our own table?" James suggested. "It's getting busy here.

A lot of people had arrived so I agreed to find a quieter table on the edge of the Outpost.

"It was even busier than this in Chicago," James said as he unpacked his bag with his own signs.

"You went to GO Fest last year in Chicago? What was it like?"

James

The decision to go was last minute. I had been saving up for a new car but I got a new job that came with a company car so I had some spare cash. I just thought … what the hell! The GO Fest the year before had been a bit of a disaster because of all the connectivity issues so I was a bit worried but it was perfectly fine on my event day.

Figure 150 - Mesprit (#481)

One of the coolest things there was the Trading Outpost, which is why I've been here the majority of the day after I caught Jirachi. *The staff were giving out signs like they are here and some people used them. There was a big language barrier though. In Chicago, there were loads of Japanese players who didn't speak much English. I could have got a* Mesprit (Figure 150) *from one of the players if we had a way of communicating. We wanted to trade with each other since we each had regional Pokémon but we couldn't.*

I bumped into one Japanese player who had clearly foreseen this problem. He had made posters like the ones here today but he had laminated his. He was walking around the Trading Outpost and the rest of the park waiting

for players to approach him. When I spoke to him, all he did was point to his poster. I pointed at the Pokémon I wanted and the Pokémon I could trade. I showed him I had it in the game then we did the trade. He ticked the Pokémon off his laminate, gave me a bow and continued.

I just thought – that is such a good idea. We managed to trade without a single problem. I decided to do the same when coming here. There are more people who speak English but there's still a huge number of Asian players around. I've had a few trades but I still don't have Pachirisu*!*

"It is a good idea," I agreed. "I might do that next time but I don't really have anything worthwhile yet to trade in return."

"What's your rarest Shiny?" James asked.

"I like my Shiny *Topegi*."

Figure 151 - Shiny Togepi (#175)

"That's a cool one," he said with a nod. "Do you mind waiting here while I see if anyone has a *Pachirisu?*"

I was content to sit by myself and take in what was happening around me. Some people approached me for trades but because I didn't have a sign, I was mostly left by myself.

I made a note of some of the signs players were carrying. Some players were walking around holding their sign across their chest or above their heads. Others had taped them onto their rucksacks or had pinned them onto their backs. It was working as I could see connections between players being made. There was initial contact and then they would move to the fence out of the way to complete the trade. Sometimes there would be a handshake or a curt nod before departing.

Two new players sat opposite me, both younger females this time. Again, as I didn't have a sign, they didn't pay me much attention.

"We're not having any luck here," the first girl said in a distinctive southern England accent. "Where have you been holding your sign?"

"I've been waving it in people's faces," the second girl, also English, said exasperatedly.

They laid their signs on the table. Both said *Torkoal* (Figure 152), a regional Pokémon exclusive to Asia.

“No one knows what this word even says,” the first girl said.

After a moment’s pause, the second girl said, “I’ve got an idea!”

She set her phone down and pulled out a different phone from her back pocket.

“It’s no use just writing *Torkoal* on here. Japanese and Chinese players have no idea what it is. I’m going to write down what the name of the Pokémon is in other languages.”

Figure 152 – Torkoal (#324)

The second girl was nodding eagerly, impressed with her best friend’s idea.

“Go onto *Bulbapedia*,” the second girl suggested. “It will definitely have it on there.”

I knew exactly which part of *Bulbapedia* the first girl would be looking at (Figure 153).

Figure 153 - Torkoal Translations

Language	Title	Meaning
Japanese	コータス *Cotoise*	From *coal* and *tortoise*
French	Chartor	From *charbon* and *tortue*
Spanish	Torkoal	Same as English name
German	Qurtel	From *Qualm* and *turtle*
Italian	Torkoal	Same as English name
Korean	코터스 *Kotas*	Transliteration of Japanese name
Cantonese Chinese		
Mandarin Chinese	煤炭龜 / 煤炭龟 *Méitànguī*	Literally "Coal tortoise"

More languages

Hindi	टरकोल *Torkoal*	Transliteration of English name
Russian	Торкол *Torkol*	Transliteration of English name

Bulbapedia (2020a)

I watched as both girls scribed the Japanese, Korean, Mandarin Chinese and German translations of *Torkoal.* With a new hope, both girls grabbed their signs and continued their pursuit.

Episode 3 – Discussion

While Episode 1 and 2 showed how Community Days and Raids provided a framework to allow player collaboration, Episode 3 introduced Pokémon GO Fest, an event hosted by Niantic. GO Fest functions similarly to Community Days but this event enables players to collaborate on an international scale. The autoethnographic accounts in Episode 3 conveyed a collection of my gameplay experiences on an international stage leading up to and including my GO Fest event day. GO Fest was introduced formally by Professor Brier in Episode 3.a. Episode 3.b showed how I met fellow players, Dawn and Max. Within Episode 3.c, Dawn shared the story of how their Pokémon GO group formed and Max explained how he met Dawn through defeating a Gym together. The features of Gyms were elaborated upon in Episode 3.d, which have been prevalent within previous episodes. Episode 3.e recounted how I dedicated a day during my Dortmund trip to the exploration of the city suburbs, accompanied by new friend, Iris. Inspired by Iris who cherishes her memories of Gym conquests, I tracked the ownership of a Gym. Episode 3.f outlined how one Gym changed ownership no less than nine times over a three-day window. Episode 3.g presented my experiences of GO Fest through pictures and screenshots and Episode 3.h and 3.i homed in on a specific moment situated at the designated trading outpost during my event day in Westfalenpark.

This discussion section draws on key themes within the data and applies lenses (as outlined in Section 3.6) in the following way:

	Lens 1 Play and playfulness	Lens 2 The experience with(in) space	Lens 3 The influence of space
Common Endeavour		☑	
Chance Encounters		☑	
Place Identity			☑
Learning and Play	☑	☑	
Dynamic Spaces			☑

International Play		☑	
Adapting Communication	☑		

Common Endeavour

Dawn and Max are a young couple who travelled to Dortmund, Germany for Pokémon GO Fest. I met the pair via a cluster of lure modules, which directed my gameplay to Platz von Hiroshima. During the initial encounter with Dawn and Max, I described a "bond" being formed. In this instance, the bond was not formed based just on our common interest in Pokémon GO (Gee and Hayes 2012). Rather, the bond formed as we represented a minority in terms of our team affiliation, Team Instinct. Between the three teams, it is well established that there are not equal numbers of players per team, as highlighted within Max's memory. As a result, there is imbalance within particular gameplay features, which incites team honour and for some players, being a member of a certain team is significant. When I approached Dawn and Max, both were especially thrilled I was a member of the same team as them. Max shared the memory of how he met Dawn, inspired by his motivation to evolve rare Pokémon. The initial encounter was partly motivated by his desire to assist Dawn as a yellow Team Instinct member, which developed into a long-term relationship, highlighting how Pokémon GO has the potential to transform lives through chance encounters. Developing a bond based on a particular element of the common interest is not fully expressed by Gee and Hayes (2012) in relation to affinity spaces. This is likely because within Sims 3, the game upon which these characteristics are primarily based, there is no equivalent team affiliation.

Chance Encounters

Dawn presents an interesting case study on chance encounters. In Episode 3.b, she presented herself as a confident individual. I reference this as her confidence is central to her favourite Pokémon GO memory in Episode 3.c. As a self-declared introvert, through Pokémon GO, she is able to connect with other people in ways she never thought she could. Her memory indicates she began to develop confidence to talk to strangers on the night she tracked a *Dratini*. During our

meeting in Dortmund, her confidence suggested she had no problem at all talking to people she had not met before, on the contrary, she was now seeking other players for new experiences. She attributes Pokémon GO to her confidence interacting with others. It is noteworthy Dawn expressed how players assisted each other to develop their specialistic knowledge as expert players adapted their language use to accommodate less experienced players (Hayes and Yee 2012).

Place Identity

Iris is an experienced Pokémon GO player who also travelled to Dortmund, Germany for GO Fest. Within her actions in Episode 3.e and as described within her memory, Iris enjoys conquering Pokémon Gyms, arguably viewing them as an extension to her identity as a Pokémon GO player (Vella et al. 2019). Gym battles are core to her enjoyment of the game. Iris explained how she feels territorial over the Gyms in her local town, believing the Wayspots belong to her and that her Pokémon alone should be stationed there. The excitement she had for conquering Gyms in her hometown developed into a desire to visit Gyms in neighbouring villages and towns. Through her desire to conquer as many Gyms as possible, she described how she would travel to various places in her home country, supporting location-based games encourage exploration (de Souza e Silva and Hjorth 2009; Leorke 2019). Upon conquering Gyms and depositing a Pokémon, Iris explained how she forges a connection with the Gyms where her Pokémon reside. Because Pokémon belonging to her remain at the Gym, she feels a part of her remained in the place she had visited. Because Pokémon who are defending Gyms lose their motivation over time, the player must feed them berries, which can be done remotely. For Iris, it is important for her to support the various Pokémon she had scattered across the continent. She feels responsible for the Pokémon, feeding them regularly, ensuring they remained at the Gym so her connection to the locations could be preserved. While there are benefits to depositing Pokémon at Gyms for the player, such as the acquisition of PokéCoins and Stardust, this was not expressed as the motivation for her behaviour. Ownership and control of those locations is indicative of choice play (Mardell et al. 2016). Experiencing real-world locations in this way and forging these types of playful connections to spaces aligns with place attachment theory

(Vella et al. 2019). For Iris, the places in which she plays Pokémon GO are important and not simply places to collect items (Gazzard 2011). As such, Iris values the places she visits for gameplay.

This is reinforced within the game, which highlights to the player all the Pokémon currently deposited at Gyms and retains a log of all Gyms that a player has ever visited. The player can view the log in list form or as a primitive map, which allows the player to visualise the places they have visited. This serves as a memory bank for players such as Iris, who aim to visit as many Gyms as possible for the log. Iris and I discussed our most memorable Gym conquests at Gyms in different places across the world. In such discussions, locations are intrinsic to memories (Mackey 2010; Vella et al. 2019).

Learning about Locations of Play

The data suggests Pokémon GO enables players to learn more about the built environment. Within Episode 3.e, Iris was able to recall further information about points of interest, linked closely to the narrative of how she managed to defeat each Gym. In this instance, the log of Gym Badges served as a conversation prompt, used as a tool to learn more about other players and the places they have played Pokémon GO. Furthermore, Episode 3.e showed how Iris and I discovered the *Walk of Fame 100* plaques, which commemorated historical figures of the German city. While we were not directed to do this within the game, we aimed to visit all 100 plaques in order to spin all 100 Photo Discs akin to a scavenger hunt. Through developing our own task, Iris and I were playing the metagame (Gee and Hayes 2012), which indicates a sense of empowerment is important within the play experience (Mardell et al. 2016). As Wayspots represent points of interest that are specific to a town or city, they allow the player to learn about their local history of the different places they visit. These actions corroborate with the notion that location-based, augmented reality games "encourage players to explore new places and see the built environment in a new light" (Leorke 2019, p. 5). By new light, this study demonstrates this is through a playful lens, which can be understood as a element of Game Transfer Phenomena (GTP), defined by Ortiz and Gortari (2018) as

“hallucinatory-like phenomena in various sensory modalities with video game content” (p. 383). This is evidenced when searching for the Walk of Fame 100 plaques. Both me and Iris in Episode 3.e used our mobile devices to imagine where Wayspots would appear in the real world. This included visualising Pokémon Gym towers looming over our real-world location. Visualising Wayspots in this manner suggests the locations in which players play Pokémon GO have meaning to the player, at least at a subconscious level. This example shows the interface of the game enables players to learn more about the built environment and view the real-world through a playful lens, as opposed to forming a barrier (Farman 2012; Gazzard 2011).

Dynamic Spaces

Episode 3.f recounted the exchange in power of a Pokémon Gym named Steigenberger Dortmund, illustrating the playful possibilities of real-world locations not usually associated with play. For the players taking part in the take over of the Gym (including myself briefly), play extends beyond the game. Players must visit the location and seek other players of the same team with whom to collaborate in order to be successful. Steigenberger Dortmund Gym served as a hub for other players to collaborate. In this example, other players might not have always been visible. I did not witness individuals or groups or players gathering outside the building. However, the actions of the players were visible through the augmented map as the tower of the Pokémon Gym changes to represent the current ownership and players can click on the Gym to see the specific Pokémon defending the Gym. As an observer, I became absorbed in the playful activity. I felt to be a part of the action, embodying the same experience as those taking part in the battle. As an onlooker of the Gym, I became absorbed within the action without meeting other players involved. Through the augmented reality map, this corroborates the claim that location-based games such as Pokémon GO create “an imaginary playful layer that merges with the city space” (de Souza e Silva 2006, p. 272). Furthermore, the coordination of the players suggests other players had set targets (akin to Iris as discussed above) to take over as many Gyms in Dortmund as

possible. This illustrates the importance of goal-setting within Pokémon GO play (Mardell et al. 2016).

In this sense, I perceived Wayspots as exciting, active, playful, social locations (Lefebvre 1991). Deriving from the work of Lefebvre (1991), Soja (1996) describes his approach to the conceptualisation of space as a "radically different way of looking at, interpreting and acting to change the embracing spatiality of human life" (p. 29). Thirdspace theory offers this study an alternative way of viewing points of interest and spaces. According to Soja (1996), thirdspaces relate to how people experience a location and how individuals within the location interact within each other. In the example of Steigenberger Dortmund Gym, this demonstrates the interconnectivity of spaces as Pokémon GO players engage with all these elements of spaces simultaneously. I engaged with an abstract representation of the Gym through the augmented reality map (firstspace). This included an image of the space and a map (secondspace). Within this study, I commentated on the action taking place within the Pokémon Gym, describing the actions of the players (thirdspace). In this context, thirdspace encapsulates all elements of space as each dimension of space is interconnected via the descriptive account.

International Play

The distribution of Pokémon both locally and internationally impacts on how players engage with(in) locations as the spawning of Pokémon is not random. Episode 3.h illustrated how Pokémon of certain types are more likely to appear in certain environments such as Grass-type Pokémon in golf courses or Dragon-type Pokémon at the most famous points of interest. Furthermore, this is scaled to an international level. There are Pokémon exclusive to particular continents and regions. This feature means players cannot play consistently in the same location and simultaneously catch a range of Pokémon. Players, such as myself and James, are motivated to travel to different places locally to take advantage of different spawn rates but also to travel to different cities and countries to fill their Pokédex. The design and distribution of the Special Research tasks as illustrated in Episode 3.g highlight the incorporation of elements of Japanese seasonal play or asobi

(Davies 2020). Play centres on the collection of Pokémon and interacting them, through the augmented reality technology at specific locations within the park. GO Fest provides a framework to catch regional exclusive Pokémon for those who have the desire or motivation to travel to other regions. The event provides "an excuse" for players who might not feel comfortable travelling but recognise travelling is important for their play experience (Mardell et al. 2016). This is an understated benefit of GO Fest. Without the structure of the event, which had a scheduled event day and the promise of certain Pokémon and other players, players such as me might not otherwise be motivated to travel to different places independently. GO Fest provided a gateway to a new location. If players do not engage with GO Fest events, regional Pokémon must be obtained through trading with someone who has, since trades cannot be done remotely. Trading is only permitted when players are a maximum of a hundred metres apart. Therefore, these players must seek out other local players who have travelled to other regions in order to request a trade. This promotes local community building and means those who have the capacity to travel for GO Fest can support those who do not. This was expressed by James in Episode 3.i, who intended to catch additional regional Pokémon for the benefit of other players in his local Pokémon GO group. In this context, there are "different routes to participation" (Gee and Hayes 2012, p. 20) as players can choose how they intend to acquire rare Pokémon. Furthermore, James acted as a leader, feeling responsible for others in his hometown, indicating he is a resource for his community (Gee and Hayes 2012).

Adapting Communication

The Trading Outpost within Westfalenpark served a similar function to a regular PokéStop outside of GO Fest. The area acted as a hub for players to convene and mingle. The possibility of obtaining even more rare Pokémon meant players made various adaptations to their methods of communication. The improvised approach became important for players' gameplay experiences (Mardell et al. 2016). For example, some players rejected the German on the official signage, opting instead for English. On the other hand, some players rejected the use of English in favour of Japanese and Chinese to locate players based in Asia who would likely have

different regional Pokémon. Two female players adopted this strategy using online sources to assist, therefore "accessing dispersed knowledge" (Gee and Hayes 2012, p. 16). The way the signs were presented to other players varied. Some players pinned signs to their bags, across their chests, or were holding them over their head. These players were generally more passive, waiting for prospective traders to approach them. Other players were more active, requesting trades from players in their vicinity directly. The variety of approaches indicates there are "different routes to participation" (Gee and Hayes 2012, p. 20). The Trading Outpost was a melting pot of different languages. From my observations, language did not appear to be a barrier at all due to the signs players had prepared in advance or created on the day, though James acknowledged this had been a problem in previous GO Fest events.

Episode 3 – Summary

Episode 3 highlights the importance of spaces for play for Pokémon GO players. Within spaces for play, players develop bonds for each other and with the spaces they occupy. Focusing on the role of Pokémon Gyms, this study shows players perceive spaces for play as exciting, active, playful, social locations (Lefebvre 1991). Gyms enable a connection to be placed to form by depositing Pokémon to reside at the location so while the player might not be present within the space, the player's digital footprint remains in the form of the Pokémon and the augmented reality map.

I also offer some final reflective comments on my experience at GO Fest Dortmund 2019. Despite my research on GO Fest leading up to my event day, I did not know exactly what to expect when I arrived. The day from start to finish, simply put, was incredible, yet exhausting. Had the memory continued on from Episode 3.i, the reader would have been treated to the story of me taking a cold shower, laying flat on my hotel bed in the dark, cold flannel on my head, with my phone on charge ready for a late tea in Dortmund. During the evening, the city was abuzz with activity. I decided not to take part, deciding instead to enjoy a peaceful alfresco pizza and some alone time to consolidate my notes. I only logged into Pokémon GO

to record the data on Steigenberger Dortmund Gym. The day was packed with events, providing dozens of memories that could have been selected for this thesis if not for space limitations. The experiences of players at large scale international events such as GO Fest is therefore an area of future research.

Chapter 7 – Episode 4: Walk on the Wild Side

Figure 154 - Walk on the Wild Side

<u>Episode 4 – Introduction</u>

Nearly four years after the release of Pokémon GO, I finally reached the maximum level. Reaching Level 40 unlocked Niantic Wayfarer, which added a whole new level of gameplay. I embraced the new features that became available to me.

It was definitely worth the wait!

Episode 4 narrates my journey transitioning from a Pokémon GO player to a Wayfinder, focusing on my discovery of the *Walk on the Wild Side* hiking trail (Figure 154).

Episode 4.a – Niantic Wayfarer Tutorial

Greetings, Pokéfans!

Welcome to our last tutorial.

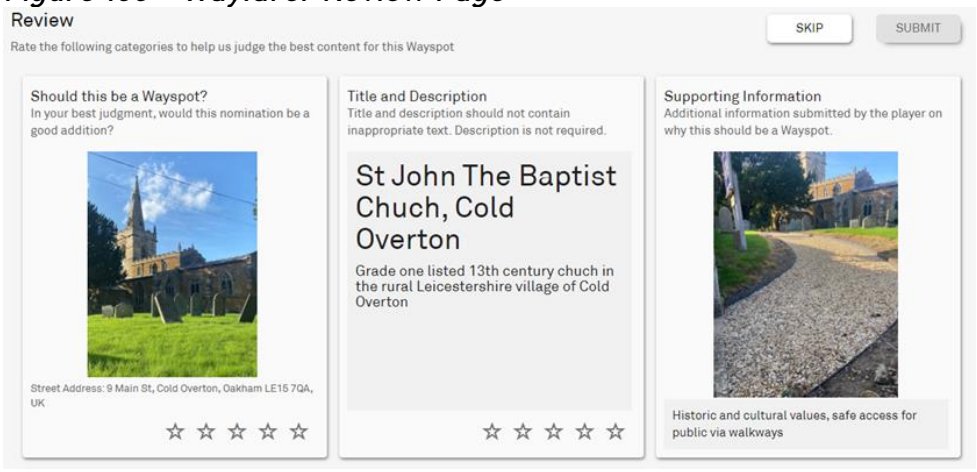
You are fast becoming a true Pokémon Master!

There is still one last challenge you must face. Can you conquer the gameboard and become a *Wayfinder*?

Once you reach the maximum player level, Level 40, you unlock the Niantic Wayfarer experience. This allows you to review Wayspot nominations of other players and even nominate your own! This way, you can shape each other's gameplay experiences!

Let's talk about nominating first. Wayspots aren't random. As a reviewer, Wayfinders grade each submission using a five-star system based on several important criteria, including accessibility for players, uniqueness, and appropriateness of the description (Figure 155).

Figure 155 - Wayfarer Review Page



After a certain number of reviews, the nomination is either accepted or rejected (though we can't share the exact algorithm with reviewers!). If accepted, the submission will become a Wayspot within Niantic games! A real life Wayspot will be available for you to visit! The live Wayspot could be a new Gym for you to conquer!

In addition to reviewing, Level 40 Wayfinders can submit nominations! This entails visiting the location in order to confirm the specific coordinates of the nomination. The nominator must then take a photograph to upload, write a title and description, write a supporting statement, and take a supporting photo. Nominations are then entered into the review process. This process allows players to decide for themselves what they view as a worthy or suitable Wayspot, but players must still follow the same set of rules, of course.

Wayfinders must first pass a training module within Niantic Wayfarer to ensure they follow Niantic's Wayspot eligibility criteria (see Figure 156). While players have autonomy to nominate any location, it is expected all Wayfinders follow Niantic's guiding principles.

Figure 156 - Niantic Eligibility Criteria

	Examples	
Exploration	**Historic plaques** **Unique art or Architecture** **Public libraries** **Public places of worship** **Zoos**	**Museums and galleries** **Community gardens** **Historical gravestones** **Nature signs** **Unusual or unique local shops**
Exercise	**Parks and plazas** **Gardens** **Forests** **Hiking trails** **Biking trails**	**Exercise equipment in public spaces** **Sport arenas** **Sport fields**
Social	**Pavilions** **Post Offices** **Gaming/Comic stores** **Libraries** **Parks and plazas**	**Fountains and water features** **Famous transit stations** **Popular restaurants** **Favourite coffee shops**

Niantic Inc., (2020)

The eligibility criteria mean Wayspots are not entirely random, but rather they are points of interest. They are locations within the community that have social, cultural, or historical significance or importance. There is a degree of subjectivity relating to the criteria, such as what makes art or architecture unique. However, the review process aims to establish what the best and most appropriate nominations are so the community ultimately makes the decision collectively.

Best of luck!

Let's nominate!

Professor Brier

Episode 4.b – Home

25 July 2020. On this day, I had only a few thousand points left to reach Level 40. Knowing it was going to happen very soon, I controlled my surroundings so I could enjoy the moment properly. I laid on my bed, door closed and put earphones in. I used an incense to attract more Pokémon and set about catching as many Pokémon as I could to gain the last experience points I needed. A *Darumaka* appeared. I swiped … and gotcha. Pokémon caught!

Figure 157 – Darumaka Caught!

Figure 158 - Level 40 Achieved!

I sat up quickly, mouth ajar with anticipation. The pop up was going to appear any moment. After a pause of a few seconds, bam, it finally happened!

I took screenshots before it disappeared (Figure 153). I just stared at the screen in awe. After years of playing a game, I had finally reached the highest level! The pop up descended and the game continued as normal. My avatar was in the same position and another Pokémon appeared as though nothing had changed.

I dashed downstairs to share the news with my partner. While he was not interested in the game, he recognised how significant of an achievement this was to me. Wasting no time, I packed my notebook and water bottle and set off out the front door on a new solitary adventure. Now I had reached the almighty Level 40, I had unlocked the ultimate ability within the game.

I could now create my own Wayspots!

Episode 4.c – Bowman Drive Open Space (1)

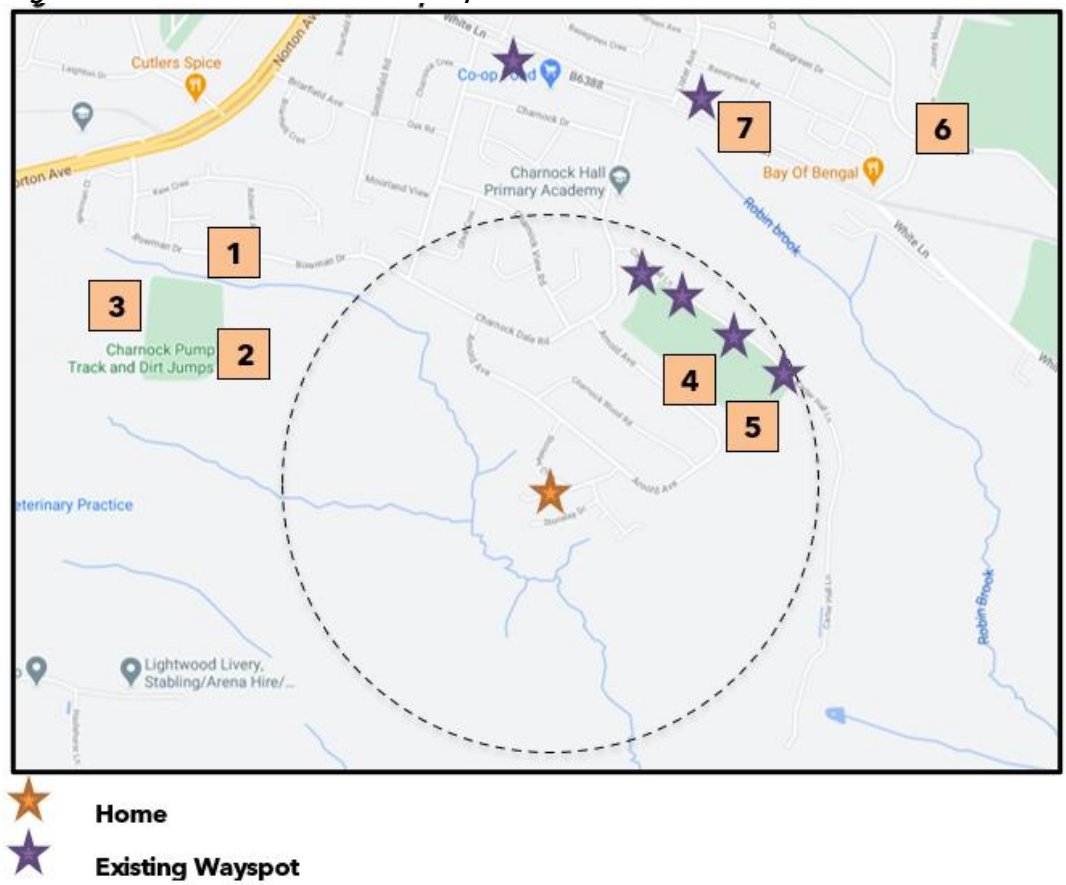
In preparation for this moment, I had already scouted my local area for potential submissions, looking for what I deemed as noteworthy points of interest. On my way to make my first nomination, I reread my notes (Figure 159):

Figure 159 - Wayspot Nominations

	Title	Description	Visible from home
1	Bowman Drive Open Space	Local recreation ground and bike track	No
2	Bowman Drive Bike Track	Bike track provided by Sheffield City Council for the use of BMX and MTB bicycles	No
3	Charnock Multi-Use Sports Fields	Fields in Charnock used by local football and rugby clubs	No
4	Cross-Trainer	Series of outdoor gym equipment supported by t-go and Sheffield City Council, located within Charnock Park	Yes
5	Skier	Series of outdoor gym equipment supported by t-go and Sheffield City Council, located within Charnock Park	Yes
6	Fox Lane Open Space	Local open space	No
7	Basegreen Farm Stone Pillar	This stone pillar was part of the 17th century Basegreen Farm. It was demolished in 1953 to make way for St. Peter's Church to serve the area's growing population	No

I mapped the seven nominations (Figure 160) to visualise what my local area would look like if all the nominations were accepted. I hoped they would indeed all be accepted as I was sure they fulfilled the Niantic Wayspot criteria. None of the PokéStops, except Cross-Trainer and Skier would be visible on the map from my home but this didn't matter to me. I simply wanted to populate the area with as many PokéStops and Gyms as I could. Despite so many eligible locations in my local area, so few appeared in the game. For me, and for others who played near me, these additional PokéStops would be a real game changer.

Figure 160 - Local Area PokéStops



The first nomination was about a fifteen-minute walk away. While it was not particularly unique, it was clearly a demarcated local open space that was not currently represented within the game. As I got closer, I pushed my glasses further up my nose and opened the settings option within Pokémon GO.

I was overcome with an overwhelming sense of nerves …and fear.

Perhaps it was anticipation I was finally going to contribute to the Pokémon GO gameboard. I so desperately wanted to do it right the first time. This was a special moment for me.

The process to nominate a location as a PokéStop was quite simple. When I arrived, I took a screenshot to remember what the location looked like before my nomination (Figure 161).

Figure 161 - Bowman Drive Open Space (Before)

In position, I began the nomination process. The first thing I was instructed to do was take a good quality photo of the Wayspot (Figure 162). There were no other people nearby so I stood a few metres away from the sign and attempted to ensure the sign was central within the frame (Figure 163).

Figure 162 - Instructions (1)

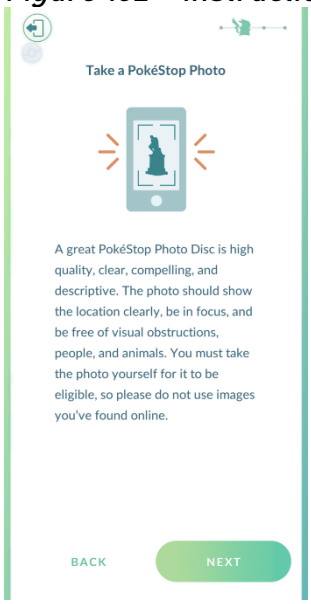
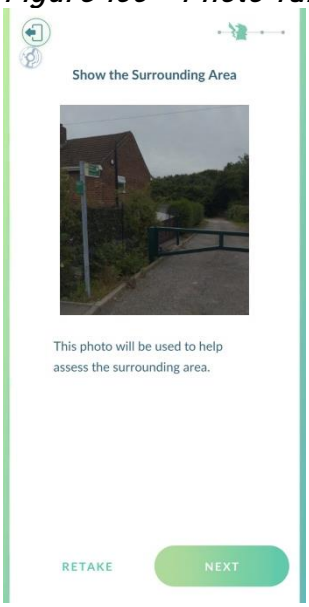


Figure 163 - Photo Taken (1)

The next step entailed taking a picture of the surrounding area so reviewers could see the nomination in context (Figure 164). I took a few more steps back to ensure the pavement and entrance to the space were visible (Figure 165).

Figure 164- Instructions (2)

Figure 165 - Photo Taken (2)



After this, I then had to name and provide a description of the nomination. This was easy as I had pre-prepared them. I consulted my notes to complete this step (Figure 166). The final step, which I hadn't anticipated, required a paragraph explaining why this was an important nomination. I didn't agonise too much over this as I knew I was at risk of overthinking it. After five minutes, I felt comfortable with my entry (Figure 167).

Figure 166 - Naming the Nomination

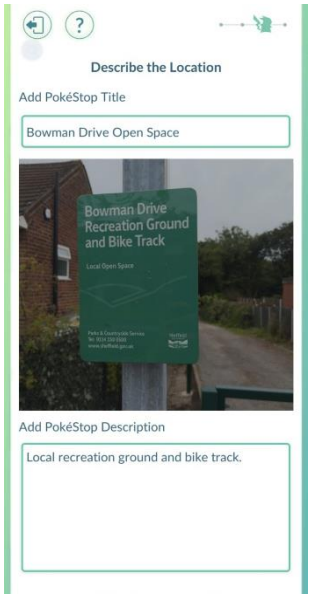
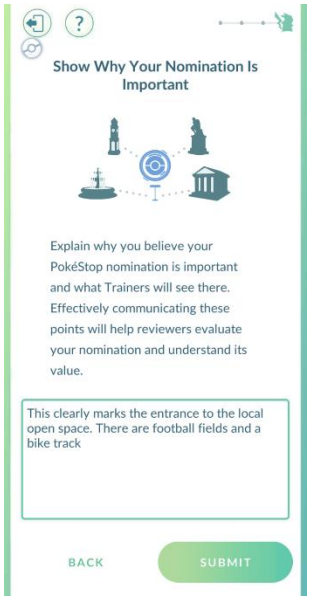


Figure 167 - Importance of Nomination



And done!

With the first nomination complete, I continued my adventure. I had six other local nominations to do.

Episode 4.d – Discord (2)

Discord 1

Ben
Hey, has anyone got experience with Wayfarer? How long does a nomination stay in voting?

MrSqueakyClean
It can take a few weeks buddy.

Itisme!
Reviewing seems to slow down in the summer. When did you submit?

Ben
I did it three days ago.

Itisme!
That's not long ago!

Ben
I know, sorry, I'm being impatient.

Itisme!
Have you checked the location is definitely eligible? That can cause delays.

Ben
Yes, I'm sure it is but is there a way of checking?

MrSqueakyClean
I can check on Ingress. Send me the details and I'll check.

Ben
(sends screenshot of Bowman Drive Open Space)

MrSqueakyClean
Yes, it should be fine. It's not in the same cell as any other Wayspots.

Ben
Cell?

MrSqueakyClean
The map is divided into cells and only one PokéStop can appear in one cell at a time. A nomination breaking this will get rejected.

Itisme!
We've had to try to move existing PokéStops a few feet to allow for more nominations in the game.

Ben
Oh! Then I'm worried as a different nomination I've made will likely be rejected. Can you check please?

MrSqueakyClean
Of course. Send me the details.

Ben
(sends screenshot of Basegreen Farm Stone Pillar)

MrSqueakyClean
Sorry mate it's in the same cell as St. Peter's Church. If approved, it will still appear in Ingress but not in PoGo.

Ben
Never mind. Not a complete waste.

MrSqueakyClean
No, Ingress players will still benefit. It might even appear in Wizards Unite if St. Peter's Church isn't in that game.

Ben
So Niantic's games don't use the exact same map then?

Itisme!
It's weird. They principally work the same but different points of interest appear in the game. Not really sure why.

Ben
Thank you for checking. I'll be more patient.

MrSqueakyClean
No problem buddy.

Discord 2

MrSqueakyClean
I'm losing my mind.

FallenRuby
What's wrong?

MrSqueakyClean
Have you read the descriptions of some of the PokéStops in town?

FallenRuby
What's wrong with them?

MrSqueakyClean
Some of them are so basic and I've spotted a few that don't even have the correct information. I spent ages making sure my nominations are accurate.

Ben
I've seen a few odd-looking descriptions too. I've been making it a habit of updating them whenever I can.

MrSqueakyClean
Me too! I've amended about twelve today alone.

Ben
Wow that's a lot. I think people are spending more time on descriptions now though. Their nomination won't get accepted otherwise.

MrSqueakyClean
Yes, I suppose. These are older PokéStops perhaps.

Ben
People can learn a lot from the descriptions so I think it's good we keep them up to date

MrSqueakyClean
Absolutely. To be truthful, I enjoy updating them! No one's forcing me to.

FallenRuby
I can't wait to reach Level 40. I want to nominate St Edmunds church.

MrSqueakyClean
You'll get there soon. Don't worry! I do know where that is though. I have a spare nomination if you want me to get it tomorrow?

FallenRuby
Really? That would be great! I'll write a good description for you.

MrSqueakyClean
I'll proofread it.

FallenRuby
Ha!

Episode 4.e – Bowman Drive Open Space (2)

Three days after my Discord conversations, I received the email I had been so impatiently waiting for. The email stated voting had concluded and Bowman Drive Open Space was eligible to be a Wayspot!

Happiness exploded within. This felt like the ultimate, final gift. After years of playing a game, I was now able to contribute back.

At the earliest opportunity, I grabbed my things and headed back to Bowman Drive Open Space to see my Wayspot within the game.

As I walked closer and closer, the Wayspot began to emerge. The walk reminded me of my solitary walk from the hotel to GO Fest in Dortmund. It felt like something momentous was about to unfold.

To my delight, Bowman Drive Open Space was a Pokémon Gym! I assumed this was because there were few other Wayspots were close by, though my Discord contacts could confirm this. As the Gym became interactable on my augmented map, I could see other players had already taken a visit. Bowman Drive was already being defended by five different players of *Team Valor* (Figure 168) - evidence of Pokémon GO players living in the vicinity.

Figure 168 - Beaten by Team Valor

I simply couldn't have that so I quickened my pace.

On the augmented map, it looked exceptional. It was my picture and my words, visible for the whole community to see. I imagined the tower looming over the entrance to the park. But it wasn't Team Valor. It had to be my team, or no team. I set about taking the Gym down. Swiftly, the Gym was mine. *Politoed* had a new home (Figure 169 and Figure 170).

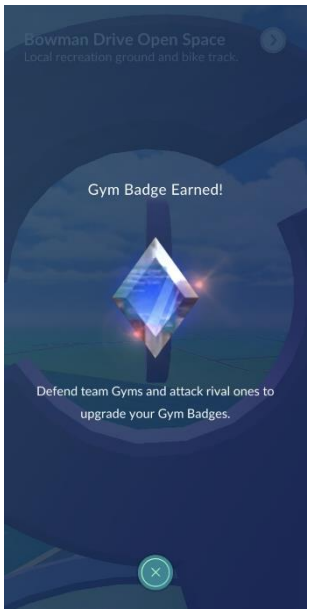
Figure 169 - Politoed Defending (1)

Figure 170 - Politoed Defending (2)

I spun the Photo Disc to collect my items (Figure 171) and this meant I earned a Gym badge (Figure 172)! I thought of Iris and wondered how long it would take me to become the master of this Gym.

Figure 171 - Photo Disc Spun

Figure 172 - Gym Badge Earned



Walking back home, I felt like I had accomplished something special. My relationship with Bowman Drive Open Space had changed. It would be forever remembered as my first successful Wayspot nomination. A new memory.

Discord

Ben
It's appeared! Bowman Drive from the other day. Thank you so much.

MrSqueakyClean
So we're looking at a three-week delay. Not too bad.

Ben
Yeah, wasn't too bad. I'm gutted I didn't get to it first. Someone had already put their Pokémon there.

MrSqueakyClean
Takes the mick when someone else christens the Gym you made.

Ben
Haha yes exactly. Got a few in voting now so as soon as they get accepted, I'm running out to them first!

MrSqueakyClean
Good luck, mate.

Please find my observation notes below.

Professor Brier

The player was tying his shoelaces contemplating where he could explore. It had been two weeks since his first Wayspot nomination was accepted and he was now eligible to nominate a further seven points of interest via Niantic Wayfarer.

"Have you got any ideas?" he asked his partner.

"I'm not sure. Will there be anything in the woods?" he replied. "Just go down the usual path and see where it takes you."

"You think?"

"Go up that path, you know the one I mean? The one you've always wondered where it went," he suggested. "Are you sure you don't want me to come?"

"I'm sure. I don't know how long I'll be so I'll see you later!"

On his own, Ben adjusted his rucksack straps as he entered the woods situated at the end of the cul-de-sac. He had been through the woods on many occasions but usually for leisurely strolls with his mother's dog or with friends on a weekend. Today, this walk had a specific purpose. He wanted to find points of interest – places that could be nominated as Wayspots. What the points of interest could be – he wasn't sure.

The route snaking through the woods was a dirt path, made challenging by protruding thick roots and low hanging branches. It was impassable for prams or regular bikes. Being the height of summer, the foliage was a lush green. The buzz of wildlife filled the ancient woodland. Not a single other person was nearby so it was bliss.

He reached a crossroad. Usually he continued, following the path around to the north, which would eventually lead him back out of the woods in the direction of home. To his right was the route heading south which his partner had mentioned previously. Did he take a route he knew well or take an unknown route?

He had all day and it was still morning so after a moment's contemplation, he took the route on the right. His decision paid off as only ten minutes later, he found something which completely took him by surprise.

Figure 173 - Walk on the Wild Side Trail Marker (1)

At the edge of the woods was a post. Screwed into the post was a trail marker. This was labelled as *Walk on the Wild Side* (Figure 173). It was a trail marker he had never seen before in other parts of the woods. Below the trail marker was a square plaque advertising the Moss Valley Wildlife Group, a charitable organisation who oversaw the woodland in the area.

Ben realised a trail marker meant there was a trail ... which meant there would be more than just this one. Unsure exactly of the Wayspot eligibility of trail markers, he nestled on a log on the edge of the path and opened Niantic Wayfarer to determine his new point of interest's eligibility.

It said quite clearly *Hiking Trail Markers* are eligible!

Anticipating he would need to write a title and description for his nomination, he opened a new note on his phone and began to consider what he could put. He paused. He had never walked the trail before so he believed any description would be inaccurate.

"There's only one way to find out," he said, lifting himself back onto his feet.

Figure 174 - Trail Marker Collage

On his walk, he didn't use his phone for play. Instead, he connected his Pokémon GO Plus wrist strap and pressed the middle button when it vibrated.

That way, he could concentrate as he followed the trail markers, photographing them along the way (Figure 174). He counted twenty-four unique *Walk on the Wild Side* trail markers. All were dark green with a yellow arrow, embellished with a dark green outline of a millstone. There was one exception, a marker which was bright yellow with white writing (Figure 175). Some trail markers were easy to spot. Some were hidden behind overgrown bushes, covered in dirt, or faded from the sun. Nonetheless, they were effective as the trail directed him back to where he started some two hours later.

Figure 175 - Walk on the Wild Side Trail Marker (2)

"You've been gone ages! Did you find anything?"

"I've had an absolute blast! I can't wait to take you on this walking route I've found!"

His partner could see how excited Ben was so he didn't tell him at this point he had sunburn covering his arms, forehead, and the tip of his nose.

Later in the day, after a cold drink, a shower and applying after sun cream, Ben sat at his desk to investigate more about the *Walk on the Wild Side* trail that was on his doorstep.

He found limited information. There were one or two blogs about the area but only one official source of information about this specific trail. It was a PDF of a photocopy of a leaflet published by Derbyshire County Council. Upon inspection, its appearance suggested it was dated but the information he needed about the route was there.

He had a look of determination.

Knowing none of the trail markers were designated as Wayspots, he had a challenge. Could he convert every single trail marker into a Wayspot?

Episode 4 – Discussion

Following the summer of 2019, which included my experiences in Dortmund as described in Episode 3, my Pokémon GO story continued. Episode 4 began with a tutorial from Professor Brier who outlined the principles of the Niantic Wayfarer application. I recalled the moments leading up to and following reaching Level 40, which unlocked all elements of Niantic Wayfarer experience as shown in Episode 4.b. Episode 4.c narrated how I proceeded to nominate the points of interest in my local area to be Wayspots. I interacted with other experienced players on Discord in Episode 4.d as I waited for the review phase to be complete. Episode 4.e described my reaction to having my first ever nomination accepted, which again included dialogue from Discord. The final autoethnographic account is Episode 4.f, which recounted how I explored local woods to find new points of interest to nominate as Wayspots, which eventually culminated in discovering a brand-new walking trail, Walk on the Wild Side.

As in previous discussion sections, I draw on key themes within the data and apply the analytic lenses (as outlined in Section 3.6) in the following way:

	Lens 1 Play and playfulness	Lens 2 The experience with(in) space	Lens 3 The influence of space
Nomination Process	☑		☑
Place Attachment			☑
Construction of Space			☑
Exploration and Mapping	☑	☑	

Playful Nomination Process

Niantic Wayfarer is a web-based application that influences how Pokémon GO players experience real-world spaces for play. I begin by discussing the nomination and review process and Niantic's eligibility criteria, which determine the acceptance of Wayspots on the augmented reality map. The process, as outlined in Episode 4.a, means Wayspots are not randomly positioned on the augmented map. This is unlike geocaches or Wayfinder Live codes for example that are placed in inconspicuous locations. Wayspots are known points of interest that have cultural, social, or historical significance and they can vary widely; monuments, plaques and memorials are acceptable Wayspots (Figure 155). The variation in Wayspots also means they cannot be classified as either places or non-places (Augé 1995). Nor can Wayspots be labelled as specific places (Agnew 2011) since Wayspots can represent objects or artwork as opposed to a geographical point of interest.

The process in which Wayspots are nominated and reviewed aims to ensure the gameboard is as accurate as possible, providing players with an up to date, correct augmented map of their real-world location. Players must be present at the real-world location of the nomination in order to place the location marker accurately and take photographs in real time. This process prevents players submitting locations they have not discovered for themselves, encouraging exploration in some form (Leorke 2019). Players must be familiar with the point of interest, or research more about the point of interest, in order to produce a credible nomination.

The nominator must be persuasive in their justification of the Wayspot in order for it to be taken seriously by the community of reviewers. Reviewers expect well-written titles and descriptions as well as photographs that clearly depict the point of interest. As shown in Episode 4.d, players such as *AustinRavenclaw* have high expectations regarding the spelling, punctuation, grammar, and content of Wayspots. For him, it is important for Wayspots to accurately represent real-world locations, exemplifying the serious behaviours of Pokémon GO players. Within our Discord conversation, he explained how he ensured his nominations were accurate.

In addition to this, he described some Wayspots that appear on the augmented map as "basic" and therefore he dedicates time to submit edits to Wayspots, through Niantic Wayfarer. The encoding of Wayspots entails researching and writing more accurate descriptions that better represent the point of interest. The behaviour of *AustinRavenclaw* suggests he is passionate not just about Pokémon GO but the way in which the space and information is organised (Gee and Hayes 2012). While he is displeased some Wayspots have been accepted through the reviewing process, he enjoys the process of fact-checking and proof-reading. *AustinRavenclaw* has a custodian role, developing a duty to maintain the accuracy of the gameboard.

Regarding the rationale for this behaviour, he believes that from the information that accompanies the Wayspots people learn a lot as a form of stealth learning (Hamari et al. 2019). Descriptions provide information about a real-world location that might not accompany the point of interest, providing Pokémon GO players a source of information potentially unavailable to non-players. Decoding Wayspots entails tapping on a visible Wayspot from the augmented map and accessing the information through the Photo Disc and map. This illustrates how the inclusion of detailed information and directions in the form of maps enable Pokémon GO players to interact with real-world locations in new ways. While *AustinRavenclaw's* leadership behaviour has the capacity to benefit other players, the motivation for his edits also derives from the enjoyment of the process (Mardell et al. 2016). The custodian responsibilities extend from the motivation to edit existing Wayspots to the nomination of new ones. When I mapped my local area to identify which points of interest I could nominate in line with Niantic's acceptance criteria, Episode 4.b shows my motivation was to populate the area with as many PokéStops and Gyms as I could. Many of the nominations I made would not directly benefit me as a Pokémon GO player as they would not be in range of my house and having turned Level 40, the need for additional PokéStops reduced. Players who would benefit the most from the addition of Wayspots in the local area would be lower level players. This altruistic behaviour is exhibited by *AustinRavenclaw* in Episode 4.d, who also offers to nominate points of interest for players who have not reached Level 40. These nominations serve only to support other Pokémon GO players in the

community and as discussed above, his enjoyment of the nomination process (Mardell et al. 2016). Pokémon GO players are supportive of one another in different ways, aligning with Gee and Hayes (2012) in their description of nurturing affinity spaces. The exchange between *AustinRavenclaw* and *FallenRuby* indicates "people get encouragement from an audience and feedback from peers" (Gee and Hayes 2012, p. 23).

Place Attachment

The acceptance of the Bowman Drive Open Space Wayspot provides an interesting case study on how playful spaces influence the experiences of Pokémon GO. The space, which previously had no Wayspots, changed as a result of the nomination process and acceptance. The brand new Gym hosted Pokémon from five other players, who had visited the Gym in the short amount of time between appearing on the map and my visit. This new Wayspot could now provide these local players with a hub, a place to meet and play that they previously did not have. The nomination created a playful space and while nothing changed within the real world, the change was apparent within the augmented map through the appearance of the Gym tower, the colour of the leading team and seeing the team of defending Pokémon. While I did not meet any players with Episode 4.e, in a similar scenario to the Steigenberger Dortmund Gym in Episode 3, seeing the activity of the players within the Gym created a sense of community centred upon Pokémon GO (Apperley and Moore 2019). This corroborates the claim that location-based games such as Pokémon GO create "an imaginary playful layer that merges with the city space" (de Souza e Silva 2006, p. 272), through the augmented reality map. This is also evidenced through Game Transfer Phenomenon, where I am shown to visualise the Wayspot tower in real life (Ortiz de Gortari 2018). In terms of my own identity as a Pokémon GO player, Episode 4 shows the importance of the nomination process. The acceptance of Bowman Drive Open Space as my first ever nomination is now interwoven with my identity as a Pokémon GO player. I felt a sense of ownership of the space, a responsibility to ensure the Gym was conquered by myself and my team. This illustrates the importance of real-world locations in the play experiences of Pokémon GO players (Mardell et al. 2016). It is a feeling comparable

to the connection Iris described in relation to the spaces she visits for play in Episode 3. Therefore, through the nomination process, players develop strong relationships with the spaces they occupy for play.

Construction of Space

The review and nomination process within Niantic Wayfarer exemplifies the continual construction of space (Massey 2005). As active, playful, social spaces, Wayspots are reviewed, nominated, and adapted based on the user's perception, experience and history with the point of interest. The encoding and decoding of Wayspots is illustrated within the Niantic Wayfarer experience such as the creation of Bowman Drive Open Space in Episode 4.e. Photographs, titles, descriptions and the specific location are selected by the player. The content of the nomination is determined by the Wayfarer community. Should the nomination be accepted and appear on the augmented map, other Wayfinders can submit edits to Wayspots, as outlined in Episode 4.c. Through interpreting space as continually under collaborative construction, this emphasises the dynamic nature of spaces and how space influences how we interpret the world and how we interact with others.

Episode 4 has shown that Wayfinders explore their local area and indeed any area they occupy to compare the points of interest in the real-world with the Wayspots within the game. Points of interest not in the game are consequently nominated and existing Wayspots are checked for accuracy. This is a collaborative process in some instances and players use their online community to check eligibility and whether the point of interest has already been nominated. Within Episode 4.c, I explored my local area in advance to prepare my Wayspot nominations. This entailed walking around my neighbourhood in search of suitable nominations that had some form of social, cultural or historical significance and therefore met the eligibility criteria. Within this round of nominations (Figure 159), all the points of interest were previously known to me, meaning the prospect of nominating new Wayspots through Wayfarer did not encourage me to explore new locations, but view my local area through a playful lens to discover what playful opportunities my own streets could offer. New to the process, Episode 4.d shows how I used contacts within my

affinity space to understand how the Niantic Wayfarer process operated. On Discord, player *MrSqueakyClean* is an experienced Ingress player, who has tacit knowledge of the Wayspot acceptance algorithm. Episode 4.d showed how he shares his extensive experience with other players, indicative of a nurturing affinity space (Gee and Hayes 2012). Furthermore, he uses various maps, such as The Silph Road Atlas Map (Figure 70), to inform other players. Wayfinders use, create and manipulate maps (such as Figure 160) to visualise the distribution of Wayspots, demonstrating creativity with how media is represented and shared with other users (Kress 2009; Lammers et al. 2012).

Exploration and Mapping

Across the different autoethnographic accounts in Episode 4, players view reaching Level 40 and unlocking the Wayfarer experience as a transformative experience. Following the initial seven nominations, I proceeded to select a further seven points of interest for nomination as shown in Episode 4.f. Unlike my first batch of seven, I had discovered something entirely new when I encountered the Walk on the Wild Side trail markers. This accidental or chance discovery led to the exploration of a large area, following each trail marker as real-life waypoints as intended (Figure 174). This discovery correlates to Bonnie's discovery of the war bunker, as shown in Episode 1.b. In these instances, location-based games encourage players to explore their surroundings and see the built environment in a new light or as a place for discovery (Leorke 2019). On the identification and creation of new points of interest in Episode 4.f, the playful activity was searching for the trail markers and for other points of interest, not Pokémon GO. Episode 4.f illustrates how I searched the route for the trail markers hidden on posts, behind bushes, using photography to collect them all. Reminiscent of how Iris and I collected the Walk of Fame 100 plaques in Episode 3.e, the self-assigned task (or metagame, Gee and Hayes 2012) culminated in further research of the trail, which then informed the title and description of the Wayspot nominations. The game itself was not the primary focus and it was only activated to ascertain whether any of the trail markers were indeed already nominated as Wayspots (Farman 2012; Gazzard 2011). Furthermore, the release of peripheral devices such as the Pokémon GO Plus accessory enables players to

continue playing the game, without the need to have the mobile device in hand, pushing the meaning of ubiquitous play even further.

It is interesting to note that had the trail markers already been represented in the game, I would have already seen the Wayspots in Pokémon GO meaning the game would have enabled me to discover the trail earlier. Nominating the trail markers as Wayspots now has the potential to advertise the route to other players, no longer relying on chance discoveries as in Episode 4.f. However, a part of my enjoyment in Episode 4.f was indeed the chance discovery of the walking trail. If the trail markers were already nominated, I would have lost this incredible feeling as the trail would have been known to me. Nonetheless, following the trail provided a gateway to the discovery of other walking routes, incredible views, and sites of local historical importance and therefore has the potential to provide others with their own memories of discoveries.

Episode 4 – Summary

Episode 4 demonstrates the importance of spaces for play for players of Pokémon GO. The data indicates contributing to the augmented reality gameboard encourages players to view real-world spaces through a playful lens. Episode 4 shows Pokémon GO play extends beyond catching new Pokémon and challenging Gyms. By contributing to the gameboard, play is characterised by the exploration and mapping of new locations, taking pictures and writing descriptions via the nomination process, all of which contribute to the continual construction of space (Massey 2005). The nomination process enables players to determine the playful opportunities or capabilities of real-world spaces. Players use their affinity space network for support in determining if a Wayspot meets the eligibility criteria, contributing to the crowdsourced verification process. Play is characterised by the discovery of new points of interest and following the nomination process. The creation of new Wayspots, which is supported by affinity spaces, leaves digital footprints in real-world spaces in the form of PokéStops and Gym that enable play. As such, this study shows players perceive spaces for play as exciting, active, playful, social locations (Lefebvre 1991).

Chapter 8 – Discussions and Reflections

Chapter 8 - Introduction

Before I outline the contents of this chapter, I summarise the content of the thesis so far. In Chapter 1, I introduced location-based, augmented reality games, which includes Pokémon GO, and illustrated how this genre of games differs from other games in that they require players to visit real-world locations for gameplay (Leorke 2019). On the augmented map of Pokémon GO, points of interest such as parks, churches, libraries, statues, and plaques are marked as Wayspots, specifically either *PokéStops* or *Pokémon Gyms* (Figure 176).

Figure 176 – PokéStops and Pokémon Gyms

Players must visit Wayspots to catch and battle Pokémon. Through incorporating real-world locations fundamentally into gameplay, real-world locations are said to become associated with a form of play (de Souza e Silva and Hjorth 2009). The transformation of real-world locations into spaces for play offers an important opportunity to build on understanding of space, place and play situated within urban environments. This investigative research is led by three research questions:

(1) What types of play and playfulness are supported by Pokémon GO?
(2) How do Pokémon GO players experience the spaces they engage with for play?
(3) How do spaces influence the play experiences of Pokémon GO players?

The first question aims to understand the types of play and playful behaviour that Pokémon GO supports. This spotlights the playful interactions between players within a space and playful interactions with the space, which I have conceptualised as *with(in)*. This study builds on the current thinking on urban and outdoor play (de Souza e Silva and Hjorth 2009; de Souza e Silva and Sutko 2008; Fjørtoft 2004), digital play (Giddings 2007, 2009; Hughes 2002; Marsh et al. 2016) and ambient play (Apperley and Moore 2019; Hjorth and Richardson 2014). The second question explores how Pokémon GO players perceive the real-world locations they visit for Pokémon GO gameplay. In order to understand how players experience spaces and places, this study draws on multiple conceptualisations of space (Agnew 2011; Augé 1995; Cresswell 2015; Lefebvre 1991; Massey 2005; Ingold 2007; Soja 1996; Tschumi 1996; Tuan 1977). The third question examines the drivers that influence engagement for playing Pokémon GO to establish the ways in which real-world locations affect gameplay, building on the current understanding of *place bonding*, which is a blanket term that refers to a network of related concepts including place attachment (Oleksy and Wnuk 2017), place identity (Vella et al. 2019), and place dependence (Hammitt et al. 2006). The theory of affinity spaces (Gee 2004; Gee and Hayes 2012) underpins the study, used as a framework to discuss the experiences of players with(in) spaces for play. This approach also allows me to establish the extent real-world locations contribute or influence the creation of a Pokémon GO affinity space. This, in turn, intends to build on current understanding and conceptualisation of affinity spaces.

To approach these research questions, I devised an approach to autoethnography that I have labelled as Emergent Multi-Narrative Autoethnography as outlined in Chapter 3. This involved using my own Pokémon GO gameplay memories as primary data, presented in the final version of the study partially through the voice of a

fictional character created for this study named Professor Brier. The approach challenges the prevailing quantitative methodologies used with the research of games (Cuttell 2015; Leorke 2019). Chapter 3 also detailed my data generation process from memory selection to the gathering of other players' memories.

The autoethnographic data was organised into four chapters. Chapter 4/Episode 1 exemplified my early Pokémon GO experiences. Chapter 5/Episode 2 demonstrated how I broadened my Pokémon GO gameplay experiences through online platforms. Chapter 6/Episode 3 recounted my experiences in Dortmund, the location of an international Pokémon GO event, GO Fest. Chapter 7/ Episode 4 narrated how I adopted the role of Wayfinder following reaching the highest level within Pokémon GO, culminating in the discovery of a new hiking route, *Walk on the Wild Side*.

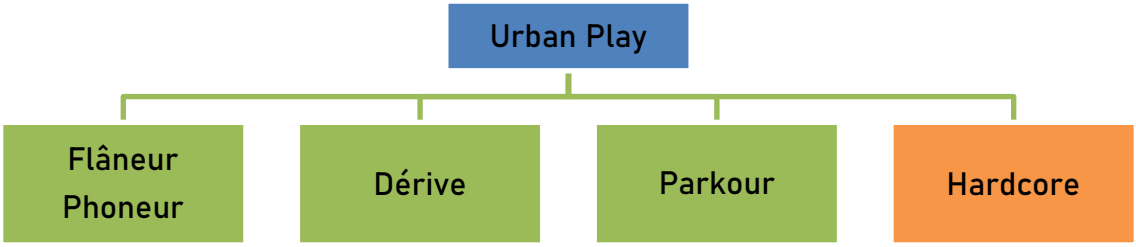
In this concluding chapter, I discuss the key findings of this research linked to the research questions (Section 8.1). I evaluate the methodological approach of the study, including the ethical considerations using the goals of autoethnography conceived by Adams et al. (2015) (Section 8.2). This incorporates an overview of this research's contributions to knowledge. I discuss the implications of this study and the possible avenues for future research (Section 8.3). The thesis concludes with some final reflective comments on the future of Pokémon GO and location-based games (Section 8.4).

8.1 – Findings Overview

This study has shown that Pokémon GO supports exploratory and investigative play, which can be understood using de Souza e Silva and Hjorth's (2009) conceptualisation of urban play. When playing Pokémon GO, players embody the *flâneur/phoneur*, which entails navigating their surroundings, taking photographs, connecting with online spaces, and making notes in coordination with play (Episode 4.c). The concept of the *dérive* is exemplified within this study as players become absorbed within playful spaces, taking different paths in search of a new Pokémon or Wayspot (Episode 3.e and 4.f). The concept of *parkour* correlates with the Niantic Wayfarer application process, which enables players to claim ownership of spaces for play in an unexpected way. The conceptualisation of urban play accounts for the majority of casual gameplay experiences. However, de Souza e Silva and Hjorth's (2009) conceptualisation does not fully account for the serious playful behaviours of Pokémon GO players as highlighted by Innocent and Leorke (2020). Players travel great distances and play for significant periods of time, which cannot be encapsulated by *flâneur, phoneur, dérive* or *parkour*.

The data indicates that the conceptualisation of urban play must expand to accommodate the instances of serious play demonstrated by Pokémon GO players within this study. In these instances of serious play, players embody what I conceptualise as *hardcore* gameplay (Figure 177), deriving from Innocent and Leorke (2020) in their depiction of *hardcore players.*

Figure 177 - Urban Play



While Figure 177 illustrates hardcore play as a separate concept within urban play, it is intended the concepts of play are viewed on a sliding scale. Moments of play may embody multiple elements of urban play. By including hardcore play within the conceptualisation of urban play, this is able to account for the immersion location-based games encourages and the dedication players of Pokémon GO demonstrate. This is supported by the indicators of play devised by Mardell et al. (2016). They illustrate setting goals, competitive play and taking risks are indicative of play experiences. In this study, these behaviours are indicative of a more serious, dedicated or hardcore form of play.

Davies (2020) argues that the gameplay of Pokémon GO has roots in earlier forms of Japanese play such as stamp collecting at train stations (Figure 23), which differ from Western forms of play in that play is organised and structured. He compares various gameplay mechanics such as the cataloguing of Pokémon (Pokédex) to the tradition of displaying insects, rooted in Japanese culture. This study illustrates that organised events such as Community Day (Episode 1.e) and GO Fest (Episode 3) also mirror elements of Japanese seasonal play or *asobi*. Travelling to new locations, including international locations, aligns with the procedures of religious pilgrimages and Japanese modes of play. The design of GO Fest Dortmund specifically illustrates this. The Special Research tasks required players to travel to certain locations within the park to capture specific Pokémon. These Pokémon must then be photographed in different biome displays within the park. Through the focus on nature, I corroborate with Davies (2020) in that "Pokémon GO players represent archetypal albeit unconscious participants of traditional culture, spiritual activity, and Japanese modes of play" (p. 333).

This study has also shown the importance of social interactions when playing Pokémon GO. This can be understood using Apperley and Moore's (2019) conceptualisation of ambient play. The haptic movements of Pokémon GO players are key elements of Pokémon play. This entails navigating a space via Wayspots, lingering nearby a Wayspot and swiping the mobile screen with a finger. In the context of Pokémon GO, play encompasses the stylised augmented reality map and the haptic effect of swiping the screen whilst also being present simultaneously within the digital map and at a real-world point of interest. This echoes de Souza e Silva's (2006) notion of hybrid space, acknowledging players straddle different elements of space simultaneously. Spaces can be shared with other players within the real-world locations (Episode 2.d) and/or digitally (Episode 3.f) such as when players observe the activity at Wayspots. Apperley and Moore (2019) refer to this embodiment of space as "doubly co-present" (p. 7), drawing on the notion players collaborate within a space of shared play that extends beyond physical proximity.

Mirroring the concept of co-presence, de Souza e Silva and Sutko (2008) claim location-based games merge play and ordinary life as players presume community. This means players have fun, even if other players are not nearby. Co-presence adds a playful dimension to the gameplay experience of Pokémon GO as no matter whether players occupy the same physical space or not, a sense of community prevails as it is assumed other Pokémon GO players are nearby (Episode 4.e). Affective resonance (Tobin 2013) also adds a playful dimension to the game. Players recognise other players in real-world locations through the haptic effect of play. In this sense, players are not only playing the game on the mobile device, but with "their body and with the bodies of others, through mutual and visible experiences of touch, gesture, comportment and mobility shared through physical proximity" (Apperley and Moore 2019, p. 8). Therefore, when players share a space for play, the visible effect becomes intertwined with the play itself (Apperley and Moore 2019).

For Pokémon GO players, the real-world is viewed through a playful lens. This can be understood in the context of Game Transfer Phenomena (GTP) (Ortiz de Gortari 2018). There are examples of GTP within the data, particularly when players use the

augmented reality map to navigate their surroundings. In Episode 3.e, both Iris and I used our mobile devices to imagine where Wayspots would appear in the real world. This included visualising Pokémon Gym towers looming over our real-world location. This also can be understood using the analysis of maps suggested by Lammes and Wilmott (2018) who suggest games that use everyday maps "hybridize the map (as a game-board) with the playground (as an area for touring)" (p. 653). This suggests gameplay disrupts the cartographic logic of the map, which they argue offers new possibilities for the player to "renegotiate spatial relations" (Lammes and Wilmott 2018, p. 653). They suggest this does not extend to Pokémon GO as this location-based game uses a heavily stylised map, characterised by the lack of road names for example. I argue Pokémon GO, despite its stylised map, also heightens the affordances of mapping. This is demonstrated through the players of Pokémon GO using the augmented map to navigate their real-world environment using the map from the game. The Silph Road (Episode 2.a) demonstrates the sophisticated collaborative mapmaking abilities of the Pokémon GO community. Visualising Wayspots in real life and mapping them physically or digitally suggests the locations in which players play Pokémon GO have meaning, significance or value to the player.

In the context of Pokémon GO, I suggest Wayspots represent more than a point of interest or a location of historical or cultural significance. Tschumi's (1996) conceptualisation of space helps to capture the notion that the built environment is composed of both spaces and events, which emphasises action or movement within space. The duality of space and event highlights spaces as being active, going beyond the idea that points of interest are static entities. This is crucial as players interact with Wayspots through the augmented reality map and the act of visiting a real-world location. Wayspots are defined or constructed by the haptic event (simultaneously being present and swiping the Photo Disc) and the space (the point of interest), which embodies the duality of space and event (Tschumi 1996). The data illustrates spaces are defined by social interaction. Through understanding spaces as active, playful, and social (Lefebvre 1991), this captures the concept that they are social products, not simply pre-existing physical spaces. Furthermore, Tuan (1977)

correlates space to movement and place to pauses. Through this metaphor, space becomes place, which emphasises the active, social, and dynamic nature of Wayspots and the event (Tschumi 1996). Understanding space in this way is crucial to accommodate the continual construction of space (Massey 2005). As active, playful, social spaces, Wayspots are encoded and decoded (Innocent and Leorke 2019) based on the user's perception, experience and history with the point of interest. This is illustrated within the Niantic Wayfarer experience such as the creation of Bowman Drive Open Space in Episode 4.e. Photographs, titles, descriptions and the specific location are selected by the player. The content of the nomination is determined by the Wayfinder community. Should the nomination be accepted and appear on the augmented map, other Wayfinders can submit edits to Wayspots, as outlined in Episode 4.c. Through interpreting space as continually under collaborative construction, this emphasises the dynamic nature of spaces and how space influences the ways we interpret the world and how we interact with others. Furthermore, I draw attention to the Wayfinder process, which requires users to create sophisticated and persuasive nominations. This includes text description and supporting photographs. Players have a sense of intrinsic motivation and a sense of pride that becomes entangled with the play experience (Mardell et al. 2016) in order to nominate accurately for the shared augmented gameboard (Episode 4.d).

In Section 2.1.3, I introduced the research of Innocent and Leorke (2019), who outline five play design principles that underpin the design of Wayfinder Live (see Figure 18). I argue these design principles can be applied to Pokémon GO as a means to understand the play experiences of Pokémon GO players. The first principle centres on the notion a mobile device is not required at all times for play. Pokémon GO players can opt to use peripheral devices such as the Pokémon GO Plus accessory that allows players to capture Pokémon and interact with Wayspots without the need to have a mobile device open (Episode 4.f). The second principle relates to searching for items, in the case of Pokémon GO – Pokémon and Wayspots – inviting new ways of being. As discussed above, this is exemplified through urban play (Figure 177) and viewing spaces for play with a playful lens. The third principle links

to the notions of materiality and virtuality. While the gameplay of Wayfinder Live differs from Pokémon GO in that there are no physical codes present in Pokémon GO, materiality and virtuality are shown to be important within the play experiences of Pokémon GO players (Episode 2.a). When Burnett et al. (2014) emphasise that "literacies are materialised in things" (p. 96), this is demonstrated by Wayspots. The data in this study suggests location constructs are used by Pokémon GO players to understand the world around them (Mackey 2010) (Episode 3). The fourth principle centres on the notion players perceive previously known locations with renewed intensity, linking to the Game Transfer Phenomenon as discussed above. The final principle outlines the extended game *(Ludea)* contributes to the play experiences of Wayfinder Live players. This experience correlates closely with the Niantic Wayfarer experiences and the encoding and decoding of real-world locations.

The types of play and the engagement players have within spaces for play influence the relationships players develop with spaces for play. As players depend on urban spaces for gameplay, this study indicates that players develop place attachment with places they visit regularly for gameplay. This is facilitated by specific gameplay mechanics such as EX Raids and Community Days, which encourage players to repeatedly return to the same Wayspots. Through regular visits to Weston Park (Episode 1.e, 1.f, 2.c and 2.d), the playful space became important to my own gameplay experiences. The space became my personal gameboard, of which I developed a sense of ownership (Vella et al. 2019) which became entangled with play (Mardell et al. 2016). Through the nomination and reviewing process of Niantic Wayfarer, players develop strong relationships with the spaces they occupy for play. While previous research suggests the interface of the game poses a barrier to real-world locations (Farman 2012; Gazzard 2011), the data in this study indicates the interface of Pokémon GO and the mechanics of Gyms (Episode 3.e) strengthen the connection players develop with spaces for play. There were resources upon which I was dependent to progress within the game, but this does not describe place dependency (Hammit et al. 2006) as resources could be acquired from other local Wayspots and Weston Park was my preferred location. Spaces and depictions of spaces as maps have also shown to be integral to the identity of Pokémon GO

players such as my mapping of the Wayspots in Weston Park. The playfulness of maps enables players to understand the places around them (Mackey 2010) as observed in Episode 2.c.

The relationship between play, place and space can be partly understood using the theory of affinity spaces (Gee 2004; Gee and Hayes 2012). This study has used the characteristics of affinity spaces as outlined in Gee and Hayes (2012) to illustrate the Pokémon GO affinity space in which I occupy is a nurturing affinity space (Gee and Hayes 2012). My social interactions are not determined by factors such as age, gender or race. Rather, the common interest in Pokémon GO is foregrounded (Episode 1.a, Episode 3.c). Experienced and new players occupy the shared location for play simultaneously (Episode 1.e, Episode 1.f). Players contribute to knowledge in an approach of their choosing such as through giving information directly to players or through edits to Wayspots on Wayfarer (Episode 2.a, Episode 4.d). The content produced is transformed by interaction as it is distributed across the community (Episode 1.f, Episode 2.f). Specialist, broad and general knowledge is pooled in an online affinity space, not within real-world locations (Episode 2.a, Episode 2.f). However, players in real-world locations encourage users to access information online, encouraging dispersed knowledge (Episode 4.b). Players take on different roles and adopt different statuses, which can change over time. As such, roles are reciprocal (Episode 2.f). There is evidence of feedback and encouragement between players within real-world locations (Episode 3.c, Episode 3.i).

Previously, the theory has been critiqued as it must adapt and expand based on changing technology (Lammers et al. 2012). This is acknowledged by researchers of affinity spaces who explain “the notion of an affinity space, while productive, is one that is evolving and shifting as it has been applied to new contexts” (Hayes and Duncan 2012, p. 11). Crucially, this study has shown how players experience spaces for play and discussed how spaces influence the experiences of Pokémon GO players, spotlighting the role of real-world spaces. The bonds individuals develop with locations are not emphasised in Gee and Hayes’ (2012) description of affinity spaces, which limits the scope of affinity space theory. This is partly expressed by

Bommarito (2014) who comments that the theory does not account for a sense of belonging felt by the participants of an affinity space. While this is in the context of belonging towards each other, I argue this should be extended to a sense of belonging to the space itself. As location-based games encourage players to visit real-world locations, the affinity spaces of these games must account for this salient dimension of play. An understanding of affinity spaces that emphasises the role of real-world locations is required to capture the sense of belongingness players feel towards each other and the location of play. Therefore, I suggest the addition of the following characteristic:

> Individuals can develop a sense of belongingness with(in)
> the online and offline spaces they occupy

The inclusion of this characteristic enables the theory of affinity spaces to accommodate the relationships or belongingness individuals are shown in this study to develop with other individuals within the spaces for play and the sense of attachment individuals develop with the real-world locations. The emphasis on offline spaces within this study indicates that offline spaces are important for players (Aljanahi 2018). The inclusion of a characteristic that emphasises the need for a sense of belongingness with(in) offline spaces contributes to Gee and Hayes (2012) conceptualisation of affinity spaces in terms of their critique of traditional school as a sense of belongingness contributes to the creation of an inclusive teaching and learning environment.

8.2 – Evaluation of Study

Adams et al. (2015) suggest four goals to assess the value and success of autoethnography: 1) making contributions to knowledge, 2) valuing the personal and experiential, 3) demonstrating the power, craft, and responsibilities of stories and storytelling, and 4) taking a relationally responsible approach to research practice and representation. I use this model to evaluate this study. Following Adams et al. (2015), I italicise the text to indicate the links to the evaluation model.

When I began the preparation for this research on Pokémon GO, I knew that I had to *contribute to knowledge* by saying something new about the location-based game. This study drew on literature relating to urban studies, games, play and space offering a unique approach to understand the experiences of Pokémon GO players in real-world locations. This study builds on understanding of urban play (de Souza e Silva and Hjorth 2009) by suggesting the inclusion of *hardcore play* to account for the competitive and completionist elements of play observed by some players. This study also expands our understanding of affinity spaces by suggesting an additional characteristic in order to account for the salient dimension of real-world play. This study demonstrates Pokémon GO players perceive the real-world locations of play as active, playful, social and dynamic spaces. Furthermore, there is tendency to use quantitative research methods to understand motivation (Caci et al. 2018; Hamari et al. 2019; Malik et al. 2019) and ethnographic studies are underrepresented within the research of location-based games, which is also acknowledged by researchers including Leorke (2019). The thick, detailed descriptions included within this study provide an alternative approach to the representation of the experiences of Pokémon GO players. Having a close relationship with the franchise, I used my *personal experiences* "to represent particular, nuanced, complex and insider insights" (Adams et al. 2015, p. 105) in an attempt to *contribute to knowledge* about the experiences of Pokémon GO players.

In order to attend to the *power, craft and responsibilities of storytelling,* I devised multi-narrative voices incorporated within and between the autoethnographic episodes. My experience as an English teacher assisted the creative writing

process, though I was entirely new to this type of compelling and evocative storytelling. This new approach to data representation aimed to engage the reader within the data as autoethnographic studies have previously been described as boring (Van Maanen 1998). I draw on two examples to illustrate how I attended to the *craft of writing*. Firstly, in Episode 4.f, I used short sentences and paragraphs, interspersed with screenshots to encourage the reader to quicken the pace of reading and progress through the section by turning the pages more quickly. This was intended to heighten the tension to represent the speed in which the changes were occurring within the Pokémon Gym (Steigenberger Dortmund). I use this case study to suggest Pokémon GO players perceive spaces for play as *active* (Massey 2005) so it was necessary to represent the *activeness* within the content, format and structure of the text. Secondly, throughout the data, I put the specific gameplay memories of other Pokémon GO players within separate boxes. By separating the memories from the main text, memories were not hidden within the autoethnographic data. This ensured there was an appropriate and balanced representation of self. Unlike Adams who aims to represent his vulnerability and misery (Adams et al. 2015), my approach aimed to express the positivity playing a game can bring to someone. When an honest friend read over the autoethnographic data, she commented on how the data brought the experiences of players to life. While I understand this does not represent the opinion of the majority, this reader's reaction provides some reassurance that the joy of being a Pokémon GO player has been successfully expressed.

I acknowledge there are limitations to the text. I spotlight three in particular. First, my own graphic design abilities limited the construction of the autoethnographic accounts. I had conceived a fully developed fictional character in Professor Brier for the use within this thesis. Originally devised as a method to convey gameplay mechanics to the reader, the Professor Brier developed into an integral part of the writing process. The voice of Professor Brier, which ultimately is the voice of me, provided more to this research than I had anticipated. Devising his sections and writing about myself in third person were an enjoyable part of the writing process. Pretending to be an onlooker allowed me to view myself in unexpected ways.

According to Bakhtin (1953), each unique voice "has a historical meaning attached to it since heteroglossia also refers to past and present meanings co-existing in the same language" (p. 55). When analysing the voices within the data, Professor Brier has multiple voices himself, providing an additional level of analysis. There are elements of the texts where Professor Brier speaks directly to the audience such as the tutorials. Strangely, as Professor Brier addresses the audience, I am the audience too, so at all times, Professor Brier is speaking to me. At multiple points during the writing process, I could almost imagine becoming Professor Brier, stepping into a real life Pokémon professor's shoes. Upon reflecting on the voice of Professor Brier, I am reminded – *I am Professor Brier*. Or rather, Professor Brier represents a version of me I want to portray. Unfortunately, I lacked the skills to design a unique model for the character and so I was limited to the pictures available online of an existing anime character. Not having a range of images which could portray different emotions, positions and gestures limited how I could incorporate the character within the text, meaning the data could not represent my original concept idea but does represent the best of my ability within the timeframe and resources I had.

Second, while I aimed to research the experiences of Pokémon GO players, this has been from the lens of a 30-year-old, white, gay, cis-male. This has potentially influenced the way in which others are presented within the text. Thirteen players became involved directly with the research. Seven were selected for the final version, which included three women and four men. While there was a fair mix of male and female players, all thirteen players were aged between 20-35 and Caucasian, meaning the experiences of other ages and ethnicities were not represented within the text. When reading a draft of the thesis, a critical friend questioned the label *middle-aged* that I used to describe female players I met outside a local library (Episode 1.a). This was compared to the label *gentleman* I used in an earlier draft. This encouraged me to question how I represented females specifically and the appropriateness of such terminology. *Middle-aged women* vs. *gentlemen*. There is imbalance in representation and it made me uncomfortable to think I was perhaps subconsciously favouring males over females in my

descriptions. I do not endeavour to unpack this here but this has served as an important reflective point. The *gentleman* was eventually drafted out of the data but the use of the label *middle-aged* to describe the female players ultimately remained despite being somewhat problematic as it symbolises my thinking or understanding at that moment in time. Given the lack of diversity in representation, as with any autoethnography, it is important to note the findings of this study do not and should not apply to all Pokémon GO players. As an autoethnographic study, the data aimed to represent my reality as a means to understand society, not to generalise the Pokémon GO community or players of all location-based games. Crucially, other Pokémon GO players have different relationships with the Pokémon franchise and location-based games, which could generate different types of experience. Other players have expressed this such as Akil (2016) who resents having to travel to real-world locations as discussed in Section 2.3.4. This is acknowledged by Gee and Hayes (2012) within the affinity space framework as there are "different forms and routes to participation" (p. 20). Therefore, I never sought to represent a typical Pokémon GO player's experiences – these are my experiences and my reality. Indeed, perhaps I am an atypical Pokémon GO player; I have a deep connection to the main series games which many other players do not (Ghazali et al. 2019).

Third, the selection and fictionalisation of memories poses a potential limitation. It was not a part of my methodological process to collaborate with participants on the production of data or receive feedback from participants on whether they had been represented accurately. This questions whether it was *relationally responsible* to include fictionalised accounts. Previous thinking is unclear on the matter, particularly in relation to the consent process. Ellis (2007) suggests seeking consent at multiple stages of the research in order to ensure "participants still want to be part of the project" (p. 24) but Hernandez and Ngunjiri (2013) claim "participants cannot be fully informed because also we are not fully sure what we will do with the material, what we will write when we write about their stories and what effects our text will have" (p. 276). To analyse the autoethnographic data, I drew on Wei's (2011) moment analysis as a means to focus on specific moments in

the text and Chesworth (2019) to apply different analytical lenses to understand the moments. This approach enabled specific characteristics or features of play to be identified, which then could then be discussed in relation to spaces. However, the memory selection process as outlined in Section 3.4.3 indicated memories were selected based on what I perceived as memorable and most effectively conveyed my experiences as a Pokémon GO player. I did not adopt a criteria-based system to determine which memories would appear in the thesis and perhaps a greater range of less-detailed moments may have provided greater scope of analysis.

8.3 – Implications and Future Research

As this study focuses on the gameplay mechanics of location-based games such as Pokémon GO, the findings of this research provide potential insight for game designers. This study has illustrated how Pokémon GO players use and interact with a range of gameplay features such as EX Raids and the log of Gym badges, which I have shown encourage or enable players to develop bonds with spaces of play. The data has also emphasised the importance of collaborative and collective play for players of location-based games such as Pokémon GO. By presenting empirically how players experience a location-based game, this has the potential to influence the design of games and future events within games, such as Community Days. Similarly, this study has implications for those involved with city planning and city-wide games and projects such as *The Bears of Sheffield* (2021), *Beat The Street* (2021), and Wayfinder Live (Innocent 2016-present) as outlined in Section 2.1.3. In order for these projects to be successful, organisers must have an understanding of how individuals engage playfully with(in) their urban environment. This study contributes to understanding of urban play, highlighting the nature of serious play and the relationships individuals develop with locations of play. Games designers and city planners are able to use the data in this study to shape the design and implementation of future projects.

The findings in this study have implications for educational research and practitioners. First, while this study has not sought to understand the complex issue of motivation, the data illustrates the gameplay mechanics that draw players to different locations as a particular motivational drive (Hamari et al. 2019). This might be insightful for those involved with curriculum design and the research of games in educational settings (Edmonds and Smith 2017; Erenli 2013; Howell 2017; Wake et al. 2018). Positive engagement and satisfaction could mean the technology has potential to be used within a greater range of educational contexts successfully. Second, this links closely to the potential to incorporate locations outside of the classroom into the classroom (Bilton and Waters 2016; Canning 2013; Davies and Hamilton 2018; Dhanapal and Lim 2013; Elliot 2015; Fjørtoft 2004; Gallagher et al. 2018; Mackinder 2017; Waller 2007 2014). Fjørtoft (2004) argues landscapes such as forests, beaches, riverbanks and mountains represent a "dynamic environment and a stimulating and challenging playground for children" (p. 36). Through Professor Brier's tutorials, this study demonstrates the creative ways in which locations are incorporated into gameplay which has potential use for those seeking to bring outdoor environments into the curriculum. Third, having such a huge following, Pokémon GO lends itself well to the study of fandoms and affinity spaces. Similar to Howell (2017), McConnel (2019) explores the notion of fandoms and outlines how introducing aspects of a fandom into a classroom setting fostered a sense of camaraderie. Bringing the research on fandoms deeper into the affinity space discourse could deepen our understanding of affinity space theory, particularly in relation to the benefits for classroom learning.

There is significant scope to carry out further research in the learning opportunities that are enabled by Pokémon GO. On learning, Hamari et al. (2019) comment on the possibility of stealth learning, which they describe as the accidental or inadvertent learning about real-world locations whilst playing Pokémon GO. Stealth learning and the role of real-world locations is largely unstudied in relation to location-based games such as Pokémon GO. This study has begun to highlight the potential of Pokémon GO in this area. The data indicates players do learn about the locations through the playful encoding and decoding of Wayspots via the game's interface.

This links to the discovery and exploration of new locations for the purpose of gameplay (Weston Park, Episode 2.c), Iris and her Gym conquests (Episode 3.c) or for the purpose of Wayspot nomination (*Walk on the Wild Side*, Episode 4.f). Furthermore, an area of research that is not fully explored in this study is the videogame learning principles listed in Gee (2007). One potential avenue of research is to apply these principles as a model to location-based games. This niche subcategory of games did not gain prominence until nearly ten years after these principles were published and therefore, they may offer further insight into the learning and literacy principles of videogames.

Pokémon GO has previously been identified as a family practice (Tran 2018), a game that parents enjoy playing as it bonds the family. In this study, the experiences of parents and children specifically were not included, focusing on adult play. However, I know friends and acquaintances who spend days out playing Pokémon GO with their younger children. There are traces of this within the data such as the comment from *BelieveYouMe* in Episode 2.f, who states they will be going to Weston Park with their partner and son. A possible avenue for future research is to explore the experiences of children and parents who play Pokémon GO together.

Future research could consider how the materials of Pokémon GO shape literacy practices. Materiality is focused on the "energetic vitality…[found within] things that [we] generally conceived as inert" (Bennett 2010, p. 5). Garcia (2019) explains this means "the meaning of objects is constructed by their surrounding contexts of individuals, other objects, and the environments in which they exist" (p. 11). Burnett et al. (2014) emphasise that "literacies are materialised in things" (p. 96) and meaning is created through the "reflexive and recursive relationship between the material and immaterial" (p. 92). This relationship is not fully explored in this study, which could be an avenue of future research. This research would be important as Mills and Comber (2015) illustrate that materials influence the way in which an individual views the world and materiality is listed as a play principle of Wayfinder Live (Innocent and Leorke 2019).

8.4 – Future of Pokémon GO

Since the game's initial release in July 2016, Pokémon GO has evolved through the introduction of new gameplay features, such as Community Days and EX Raids as explored in this study. I conclude the study offering some reflective comments on the future of Pokémon GO.

While this has highlighted the value Pokémon adds to players across the world, there are more troubling aspects of the franchise. Particularly in relation to Pokémon GO, it is important to highlight the emerging issue regarding *microtransactions*, which is discussed more broadly by Leorke (2019). Nintendo is well regarded within the gaming community for being reasonable in their use of microtransactions. For example, around when this research began in 2017, one journalist remarked how Nintendo "seems physically uncomfortable taking money from mobile players" using Pokémon GO as an example to show how the use of microtransactions were limited (Tassi 2017). However, after a short period of time, more paid events have been included within Pokémon GO, sparking controversy within the community (Koepp 2020). In December 2020, Niantic introduced a paid Special Research event at a cost of £7.99, ultimately putting Pokémon such as Galarian *Mr. Mime* and its evolution *Mr. Rime* (Figure 178 and 179) behind a paywall.

Figure 178 - Galarian Mr. Mime (#122)

Figure 179 – Mr. Rime (#866)

From a personal point of view, the increase of microtransactions and paid events negatively impacts the Pokémon GO gameplay experience. Not all players can afford to pay the premium and ultimately, this has the potential to divide players. Some players question the necessity of microtransactions, given Niantic's reported

estimated nearly two billion dollars revenue in the first ten months of 2020 (Tassi 2021). Historically, microtransactions would allow a player to progress more quickly but all players had the opportunity to reach 100% completion. However, in the context of Pokémon GO, for players such as myself who chose not to partake in the December 2020 Special Research event, it is now impossible to complete the Pokédex since there are Pokémon missing. I understand the need for microtransactions - the game is free of charge to download and play and there are no adverts to cover the cost of maintaining the game. However, it is a worry that this practice will become exploitative (Leorke 2019).

The game continues to challenge its playerbase. A notable change since the writing of the data chapters is the increase to the level cap. Players previously required a total of 20,000,000 experience points to reach Level 40. Now, players can now reach Level 50 through gaining more experience points and completing a range of difficult themed tasks. The total experience points required is now 176,000,000. One player calculated it will take him another twenty years to reach the maximum Level 50 (Reiner 2021). Despite the difficulty, players have risen to the challenge, illustrating again the dedication and commitment players have for the game. At the time of writing, the first people were starting to hit Level 50 as reported by Lee (2021). The first player to this milestone – *FleeceKing* - has nearly 700,000,000 experience points.

In 2020, Pokémon GO was in the midst of extending its GO Fest offer to other locations around the world. A new event, GO Safari, was scheduled to take place in Liverpool, UK in April 2020. The event, along with many others, were inevitably cancelled following the COVID-19 pandemic in March 2020. Indeed, the pandemic caused disruption for all Pokémon GO players across the community – it is impossible to play a location-based game without visiting real-world locations, and of course travelling has been prohibited in the United Kingdom for the majority of 2020 and now 2021. Niantic has responded to this in numerous ways, such as the adaptation of Field Research tasks that can be completed from home and the

introduction of *Remote Raids*, which allow a player who is in the vicinity of a Gym to invite five other players to the battle who may be situated at home.

It feels ironic to be writing a thesis about visiting exciting places and meeting new people during a global pandemic that prohibits these actions. Nonetheless, I am grateful for the experiences I have had and I am hopeful once the global situation shifts, which it will, Niantic will resume its international GO Fest and GO Safari campaigns. When that moment arrives, I will be first in line for a ticket.

Game and Application Reference List

Beat the Street, (2021). Beat the Street, Sheffield [online]. *Beat the Street.* [Viewed 14 July 2021]. Available from: https://www.beatthestreet.me/sheffield/

Blast Theory, (2004). *I Like Frank*. [GAME] Mobile. Blast Theory.

Blast Theory, (2007). *Day of the Figurines*. [GAME] Mobile. Blast Theory.

Bungie, (2004). *Halo 2*. [GAME] X Box. USA: Microsoft Game Studios.

EA, (2009). *The Sims 3*. [GAME] PC. USA: Maxis Redwood Shores.

Grey Area, (2010). *Shadow Cities*. [GAME] Mobile. Finland: Grey Area.

Innocent, T., (2016-present). *Wayfinder Live.* [GAME]. Mobile. Melbourne: Innocent.

It's Alive Mobile Games, (2001). *Botfighers*. [GAME] Mobile. It's Alive Mobile Games AB!.

King, (2012-present). *Candy Crush*. [GAME] Mobile. Malta: Activision.

Mojang, (2011-present). *Minecraft.* [GAME]. Windows. Sweden: Stockholm.

NCSoft, (1998). *Lineage* [GAME] PC. South Korea: NCSoft.

Niantic, (2013-present). *Ingress*. [GAME] Mobile. USA: Niantic.

Niantic, (2016-present). *Pokémon GO*. [GAME] Mobile. USA: Niantic.

Niantic, (2019-present). *Harry Potter: Wizards Unite*. [GAME] Mobile. USA: Niantic.

Nintendo, (2001). *Super Smash Bros. Melee*. [GAME]. GameCube. Japan: Nintendo.

Nintendo, (2003a). *The Legend of Zelda: The Wind Waker*. [GAME] GameCube. Japan: Nintendo.

Nintendo, (2003b). *Mario Kart Double Dash!!.* [GAME] GameCube. Japan: Nintendo.

Rovio Entertainment, (2009-present). *Angry Birds*. [GAME] Mobile. Finland: Rovio Entertainment.

The Bears of Sheffield, (2021). [Nano Bear] [digital image]. Available from: https://bearsofsheffield.com/

References

Adams, T. E., (2006). Seeking father: Relationally reframing a troubled love story. *Qualitative Inquiry*. 12(4), 704-723.

Adams, T. E., Holman Jones, C., and Ellis C., (2015). Evaluating Autoethnography. In: T. E. Adams, S. Holman Jones and C. Ellis, eds. *Autoethnography: Understanding Qualitative Research.* Oxford: Oxford University Press. pp. 99-115.

Agnew, J., (2011). Space and Place. In: J. A. Agnew and D. N. Livingstone, eds. *The Sage Handbook of Geographical Knowledge*. London: Sage. pp. 316-330.

Aguilar, S. J., Holman, C., and Fishman B. J., (2015). Game-Inspired Design: Empirical Evidence in Support of Gameful Learning Environments. *Games and Culture.* pp. 1-27.

Akil, O., (2016). Warning: Pokemon GO is a Death Sentence if you are a Black Man. *Medium* [online]. (7 July). [viewed 30/04/2019]. Available from: https://medium.com/dayone-a-new-perspective/warning-pokemon-go-is-a-death-sentence-if-you-are-a-black-man-acacb4bdae7f

Alavesa, P., Pakanen, M., Ojala, T., Pouke, M., Kukka, H., Samodelkin, A., Voroshilov, A., and Abdellatif, M., (2020). Embedding virtual environments into the physical world: memorability and co-presence in the context of pervasive location-based games. *Multimedia Tools and Applications*. 79(5-6), 3285–3309.

Albers, P., Pace, C. L., and Odo, D. M., (2016). From affinity and beyond: A study of online literacy conversations and communities. *Journal of Literacy Research*. 48(2), 221–250.

Alha, K., Koskinen, E., Paavilainen, J. and Hamari J., (2019). Why do people play location-based augmented reality games: A study on Pokémon GO. *Computers in Human Behavior*. 93, 114-122.

Aljanahi, M. H., (2018). "You Could Say I'm a Hardcore Fan of Dragon Ball Z": Affinity Spaces, Multiliteracies, and the Negotiation of Identity. *Literacy Research and Instruction*. 58(1), 1-18.

Althoff, T., White, R. and Horvitz, E., (2016). Influence of Pokémon Go on Physical Activity: Study and Implications. *Journal of Medical Internet Research*. 18(12), 1-14.

Amin, A. and Thrift, N., (2002). *Cities: Reimagining the Urban*. Cambridge: Polity.

Anderson, C. A., and Bushman, B. J., (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science*. 12, 353–359.

Anderson, C. A., Gentile, D. A., and Buckley, K. E., (2007). *Violent video game effects on children and adolescents: Theory, research, and public policy*. New York: Oxford University Press.

Anderson, C. A., Shibuya, A., Ihori, N., Swing, E. L., Bushman, B. J., Sakamoto, A., and Saleem, M., (2010). Violent video game effects on aggression, empathy, and prosocial behavior in eastern and western countries: A meta-analytic review. *Psychological Bulletin*. 136, 151–173.

Apperley, M. and Moore, K., (2019). Haptic ambience: Ambient play, the haptic effect and co-presence in Pokémon GO. *Convergence: The International Journal into New Media Technologies*. 25(1), 6-17.

Ardrey, C. A., (2017). Dialogism and Song: Intertextuality, Heteroglossia and Collaboration in Augusta Holmès's setting of Catulle Mendès's 'Chanson'. *The Australian Journal of French Studies*. 54(2-3), 235-252.

Atkinson, P., (1997). Narrative turn or blind alley? *Qualitative Health Research*. 7, 325-344.

Augé, M., (1995). *Non-Places: Introduction to an Anthropology of Supermodernity*. London: Verso.

Bailey, B., (2007). Heteroglossia and boundaries. In: M. Heller, ed. *Bilingualism: A Social Approach*. Basingstoke, UK: Palgrave. pp. 257–276.

Bailey, C. J., (2017). *Investigating the lived experience of an after-school Minecraft club*. PhD Thesis, Sheffield Hallam University. [Viewed 1 September 2018]. Available from: https://idp.shef.ac.uk/idp/profile/SAML2/POST/SSO

Bakhtin, M. M., (1935) [1981]. Discourse in the novel. In: M. Holquist, ed. *The Dialogic Imagination*. Austin: University of Texas Press. pp. 259– 422.

Bakhtin, M. M., (1953) [1986a]. The problem of speech genres. In: M. Holquist, ed. *Speech genres and other late essays*. Austin: University of Texas Press. pp. 60– 102.

Balmford, W. and Davies, H., (2020). Mobile Minecraft: Negotiated space and perceptions of play in Australian families. *Mobile Media & Communication*. 8(1), 3-21.

Barany, A. and Foster, A., (2020). Context, Community, and the Individual: Modeling Identity in a Game Affinity Space. *The Journal of Experimental Education*. 89(3), 523-540.

Barbieri, S., Vettore, G., Pietrantonio, V., Snenghi, R., Tredese, A., Bergamini, M., Previato, S., Stefanati, A., Gaudio, R.M., Feltracco, P., (2017). Pedestrian inattention blindness while playing Pokémon Go as emerging health-risk behavior: a case report. *Journal of Medical Internet Research*. 19(4).

Barkley, J. E., Lepp, A., Glickman, E. L., (2017). "Pokémon Go!" may promote walking, discourage sedentary behavior in college students. *Games Health Journal*. 6(3), 165–170.

Barnett, L. and Owens, M., (2015). Does play have to be playful? In: J. Johnson, S. Eberle, T. Henricks and D. Kuschner, eds. *The Handbook of the Study of Play.* UK: Rowman & Littlefield. pp. 453-459.

Barton, D. and Hamilton, M., (1998). *Local Literacies: Reading and Writing in One Community*. London: Routledge.

BBC, (2016). Pokemon Go player finds dead body in Wyoming river while searching for a Pokestop. *BBC* [online]. (10 July). [viewed 30/04/2019]. Available from: https://www.bbc.co.uk/news/newsbeat-36757858

Bélanger, H., Cameron, S. and de la Mora, C., (2012). Revitalization of Public Spaces in a Working Class Neighborhood: Appropriation, Identity and the Urban Imaginary. In: H. Caskin and F. Bernardo, eds. *The Role of Place Identity in the Perception, Understanding, and Design of Built Environments*. pp. 47-62.

Bell, A., (2007). Style in dialogue: Bakhtin and sociolinguistic theory. In: R. Bailey and C. Lucas, eds. *Sociolinguistic Variation: Theories, Methods and Applications*. pp. 90-109.

Bennett, J., (2010). *Vibrant matter: A political ecology of things*. Durham, NC: Duke University Press.

Billig, M., (2006). Is My Home My Castle? Place Attachment, Risk Perception, and Religious Faith. *Environment And Behavior*. 38(2), 248-265.

Bilton, H. and Waters, J., (2016). Why take young children outside? A critical consideration of the professed aims for outdoor learning in the early years by teachers from England and Wales. *Social Sciences*. 6(1), 1-16.

Bird, J., and Edwards, S., (2015). Children Learning to Use Technologies through Play: A Digital Play Framework. *British Journal of Educational Technology.* 46(6), 1149–1160.

Bommarito, D., (2014). Tending to change: Toward a situated model of affinity spaces. *E-Learning and Digital Media*. 11(4), 406-41.

Bonus, J. A., Peebles, A., Mares, M. L. and Sarmiento, I. G., (2018). Look on the bright side (of media effects): Pokémon Go as a catalyst for positive life experiences. *Media Psychology*. 21, 263-287.

Bradley, J. M., (2018). Translation and Translanguaging in Production and Performance in Community Arts. Ph.D thesis, The University of Leeds.

Broadhead, P., (2003). *Early Years Play and Learning: Developing Social Skills and Cooperation*. London: Routledge Falmer.

Bulbapedia, (2020a). Pokémon Games [online]. *Bulbapedia*. [Viewed 20 October 2020]. Available from:

https://bulbapedia.bulbagarden.net/wiki/Pok%C3%A9mon_games#Core_series

Bulbapedia, (2020b). Pokémon Professors [online]. *Bulbapedia*. [Viewed 20 October 2020]. Available from: https://bulbapedia.bulbagarden.net/wiki/Pok%C3%A9mon_Professor

Burnett, C., Merchant, G., Pahl, K., and Rowsell, J., (2014). The (Im)Materiality of Literacy: The Significance of Subjectivity to New Literacies Research. *Discourse: Studies in The Cultural Politics of Education*. 35(1), 90-103.

Caci, B., Scrima F., Tabacchi, M. E. and Cardaci, Maurizio, C., (2018). The Reciprocal Influences among Motivation, Personality Traits, and Game Habits for Playing Pokémon GO. *International Journal of Human–Computer Interaction*. 35(14), 1303-1311.

Caillois, R., (2001). *Man, Play and Games*. Champaign: University of Illinois Press.

Caine, V., Shaun Murphy, M., Estefan, A., Jean Clandinin, D., Steeves, P., and Huber, J., (2017). Exploring the Purposes of Fictionalization in Narrative Inquiry. *Qualitative Enquiry*. 23(3), 215-221.

Canning, N., (2013). 'Where's the bear? Over there!' – creative thinking and imagination in den making. *Early Child Development and Care*. 183(8), 1042-1053.

Chang, H., (2013). Individual and collaborative autoethnography as method: A social scientist's perspective. In: S. Holman Jones, T. E. Adams, and C. Ellis, eds. *Handbook of Autoethnography*. Walnut Creek, CA: Left Coast Press. pp. 107-122.

Chang, H., Ngunjiri, F. and Hernandez, K. C., (2013). *Collaborative Autoethnography*. California, Left Coast Press.

Cheng, C., and Kuo, H., (2015). Bonding to a new place never visited: Exploring the relationship between landscape elements and place bonding. *Tourism Management.* 46, 546-560.

Chesworth, L., (2019). Theorising young children's interests: making connections and in the-moment happenings. *Learning, Culture and Social Interaction.* 29, 1-9.

Coffey, A., (1999). *The Ethnographic Self*. London: Sage.

ComScore, (2017). Cross-platform future in focus [online]. (22 March). [viewed 29/04/2020]. Available from: https://www.comscore.com/fre/Perspectives/Presentations-and-Whitepapers/2017/2017-US-Cross-Platform-Future-in-Focus

Costigan, A., Seissler, R. and Ham, B., (2017). Pokémon GO Changed our Library*. Info Today*. October, 26-29.

Crawley, S. L. and Husakouskaya, N., (2013). How global is queer? A co-autoethnography of politics, pedagogy, and theory in drag. In: S. Holman

Jones, T. E. Adams, and C. Ellis, eds. *Handbook of Autoethnography*. Walnut Creek, CA: Left Coast Press. pp. 321-338.

Creese, A. and Blackledge, A., (2010). Translanguaging in the Bilingual Classroom: A Pedagogy for Learning and Teaching? *The Modern Language Journal*. 94(i), 103-115.

Cresswell, T., (2015). *Place: An Introduction.* Oxford: Blackwell.

Curwood, J. S., (2012). Cultural shifts, multimodal representations, and assessment practices: A case study. *E-Learning and Digital Media*. 9(2), 232-244.

Curwood, J. S., (2013). The Hunger Games: Literature, literacy, and online affinity spaces. *Language Arts*. 90(6), 417-427.

Curwood, J. S., Magnifico, A. M. and Lammers, J. C., (2013). Writing in the Wild: Writers' Motivation in Fan-based Affinity Spaces. *Journal of Adolescent & Adult Literacy*. 56(8), 677-685.

Custer, D., (2014). Autoethnography as a transformative research method. *The Qualitative Report*. 19(37), 1-13.

Cuttell, J., (2015). Arguing for an immersive method: Reflexive meaning-making, the visible researcher, and moral responses to gameplay. *Journal of Contemporary Research in Anthropology and Sociology*. 6(1), 55-75.

Darkmurkrow, (2011). Pokémon Red Game Boy Intro and Pallet Town [online]. *YouTube*. [Viewed 13 March 2019]. Available from: https://www.youtube.com/watch?v=9giCebGY8-s

Davies, H., (2020). Japanese Seasonal Play. A Prehistory of Pokémon GO. *American Journal of Play*. 12(3), 305-337.

Davies, J., (2006). "Hello newbie! **big welcome hugs** hope u like it here as much as i do!" An exploration of teenagers' informal on-line learning. In: D. Buckingham and R. Willet, eds. *Digital Generations*. New York: Lawrence Ehrlbaum. pp. 211–228.

Davies, R. and Hamilton, P., (2018). Assessing learning in the early years' outdoor classroom: examining challenges in practice. *Education 3-13*. 46(1), 117-129.

Davis, C. S. and Warren-Findlow, J., (2011). Coping With Trauma through Fictional Narrative Ethnography: A Primer. *Journal of Loss and Trauma*. 16, 565-572.

Day, K., (2000). The Ethic of Care and Women's Experiences of Public Space. *Journal of Environmental Psychology.* 20(2), 103–124.

Day, K., Stump, C. and Carreon, D., (2003). Confrontation and Loss of Control: Masculinity and Men's Fear in Public Space. *Journal of Environmental Psychology*. 23(3), 311–322.

de Souza e Silva, A. and Frith, J., (2010). Locative mobile social networks: Mapping communication, location, and urban spaces. *Mobilities*. 5(4), 485-506.

de Souza e Silva, A. and Hjorth, L., (2009). Playful urban spaces: A historical approach to mobile games. *Simulation & Gaming.* 40(5), 602–625.

de Souza e Silva, A. and Sutko, D. M., (2008). Playing life and living play: How hybrid reality games reframe space, play, and the ordinary. *Critical Studies in Media Communication*. 25, 447-465.

de Souza e Silva, A., (2006). From cyber to hybrid: Mobile technologies as interfaces of hybrid spaces. *Space and Culture*. 9(3), 261–278.

de Souza e Silva, A., (2017). Pokémon GO as an HRG: Mobility, sociability, and surveillance in hybrid spaces. *Mobile Media & Communication*. 5(1), 20-23.

Debord, G., (2006). Theory of the dérive. Situationist International Anthology. (Version Revised and Expanded Edition). *Bureau of Public Secrets* [online]. [Viewed 14 April 2020]. Available from: http://www.bopsecrets.org/SI/2.derive.htm

DeLisi, M., Vaughn, M. G., Gentile, D. A., Anderson, C. A., and Shook, J. J., (2012). Violent Video Games, Delinquency, and Youth Violence: New Evidence. *Youth Violence and Juvenile Justice*. 11(2), 132-142.

Department for Education and Skills (DfES), (2006). *Learning Outside the Classroom Manifesto*. London: DfES.

Deterding, S., Khaled, R., Nacke, L. and Dixon, D., (2011). Gamification: Toward a Definition. [Viewed 18 April 2018]. Available from: http://gamification-research.org/wp-content/uploads/2011/04/02-Deterding-Khaled-Nacke-Dixon.pdf

DeVane, B., (2012). Whither membership? Identity and Social Learning in Affinity Spaces. In: E. R. Hayes and S. C. Duncan, eds. *Learning in Video Game Affinity Spaces*. pp. 162-185.

Devine-Wright, P., (2009). Rethinking NIMBYism: The Role of Place Attachment and Place Identity in Explaining Place-protective Action. *Journal of Community & Applied Social Psychology.* 19, 426–441.

Dhanapal, S. and Lim, C., (2013). A comparative study of the impacts and students' perceptions of indoor and outdoor learning in the science classroom. *Asia-Pacific Forum on Science Learning and Teaching*. 14(2), 1-23.

Doloriert, C. and Sambrook, S., (2009). Ethical confessions of the "I" of autoethnography: The student's dilemma. *Qualitative Research in Organizations and Management: An International Journal*. 1, 27-45.

Duncan, S. C., (2010). Gamers as designers: A framework for investigating design in gaming affinity spaces. *E-Learning and Digital Media*. 7(1), 21-34.

Eberle, S., (2014). The elements of play: Towards a philosophy and definition of play. *Journal of Play*. 6(2), 214-233.

Edmonds, R. and Smith, S., (2017). From playing to designing: Enhancing educational experiences with location-based mobile learning games. *Australasian Journal of Educational Technology*. 33(6), 41-53.

Ehret, C., Hollett, T., and Jocius, R., (2016). The matter of new media making: An intra-action analysis of adolescents making a digital book trailer. *Journal of Literacy Research*. 48(3), 346–377.

Elliot, H., (2015). Forest School in an inner city? Making the impossible possible. *Education 3-13*. 43(6), 722-730.

Ellis, C. and Bochner, A. P., (2000). Autoethnography, personal narrative, reflexivity. In: N. K. Denzin, Y. S. Lincoln, eds. *Handbook of Qualitative Research*. 2nd ed. Thousand Oaks, CA: Sage. pp. 733-768.

Ellis, C., (2007). Telling secrets, revealing lives: Relational ethics in research with intimate others. *Quantitative Inquiry.* 13, 3-29.

Ellis, C., Adams, T. E. and Bochner, A. P., (2011). Autoethnography: an overview. *Historical Social Research/Historische Sozialforschung.* 34(4), 273-290.

Erenli, K., (2013). Gamify Your Teaching – Using Location-Based Games for Educational Purposes. *International Journal of Advanced Corporate Learning*. 6(2), 22-27.

Etherington, K., (2007). Ethical research in reflexive relationships*. Qualitative Inquiry.* 13(5), 599-616.

Farman, J., (2012). *Mobile Interface Theory: Embodied Space and Locative Media*. New York: Routledge.

Farman, J., (2014). Creative Misuse as Resistance: Surveillance, Mobile Technologies, and Locative Games. *Surveillance & Society*. 12(3), 377-388.

Feldman, B., (2018). Agency and governance: Pokémon-Go and contested fun in public space. *Geoforum.* 96, 289-297.

Ferreira, F. and Isbell, B. J., (2016). *A Return to the Village: Community Ethnographies and the Study of Andean Culture in Retrospective*. London: University of London Press.

Fjørtoft, I., (2004). Landscape as Playscape: The Effects of Natural Environments on Children's Play and Motor Development. *Children Youth and Environments.* 14 (2), 21–44.

Frith, J., (2017). The digital "lure": small businesses and Pokémon GO. *Mobile Media Communication*. 5(1), 51–54.

Gallagher, M., Hackett, A., Procter, L., and Scott, F., (2018). Vibrations in Place: Sound and Language in Early Childhood Literacy Practices. *Educational Studies*. 54(4), 465-482.

Gannon, S., (2013). Sketching subjectivities. In: S. Holman Jones, T. E. Adams and C. Ellis, eds. *Handbook of Autoethnography.* Walnut Creek, CA: Left Coast Press. pp. 228-243.

Garcia, A., (2019). Gaming Literacies: Spatiality, Materiality, and Analog Learning in a Digital Age. *International Literacy Association*. 55(1), 9-27.

Gazzard, A., (2011). Location, Location, Location: Collecting Space and Place in Mobile Media. *Convergence: The International Journal of Research into New Media Technologies*. 17(4), 405-417.

Gee J. P. and Hayes, E. R., (2011). *Language and learning in the digital age*. London: Routledge.

Gee, J. P. and Hayes, E. R., (2010). *Women as gamers: The Sims and 21st Century Learning*. New York: Palgrave.

Gee, J. P. and Hayes, E. R., (2012). Nurturing Affinity Spaces and Game-Based Learning. In: C. Steinkuehler, K. Squire, and S. Barab, eds. *Games, Learning, and Society*. Cambridge: Cambridge University Press.

Gee, J. P., (1992). *The Social Mind: Language, Ideology, and Social Practice, New York*. NY: Bergin & Garvey.

Gee, J. P., (2000). The New Literacy Studies: From 'socially situated' to the work of the social. In: D. Barton, M. Hamilton, and R. Ivanic, eds. *Situated Literacies: Reading and Writing in Context*. London: Routledge. pp. 180–196.

Gee, J. P., (2004). *Situated language and learning: A critique of traditional schooling*. New York, NY: Routledge.

Gee, J. P., (2005). Good video games and good learning. *Phi Kappa Phi Forum*. 85(2), 33-40.

Gee, J. P., (2007). *What Video Games Have to Teach Us About Learning and Literacy. Second Edition: Revised and Updated Edition*. New York: Palgrave MacMillan.

Gee, J. P., (2013). *Good video games and good learning: Collected essays on video games, literacy, and learning.* New York, NY: Peter Lang.

Gee, J. P., (2015). The New Literacy Studies. In: J. Rowsell and K. Pahl, eds. *The Routledge Handbook of Literacy Studies*. London: Routledge. pp. 35-48.

Gee, J. P., (2018). Affinity spaces: How young people live and learn online and out of school. *Phi Delta Kappan*. 99(6), 8-13.

Geertz, C., (1973). *The Interpretation of Cultures.* New York: Basic Books.

Ghazali, E., Mutum, D. S. and Woon, M. Y., (2019). Exploring player behavior and motivations to continue playing Pokémon GO. *Information Technology & People.* 32(3), 646–667.

Giddings, S., (2007). I'm The One Who Makes the Lego Racers Go: Studying Virtual and Actual Play. In: S. Weber and S. Dixon, eds. *Growing Up Online: Young People and Digital Technologies.* USA: Palgrave Macmillan. pp. 37-50.

Giddings, S., (2009). Events and Collusions A Glossary for the Microethnography of Video Game Play. *Games and Culture*. 4(2), 144-157.

Giorgio, G., (2013). Reflections on writing through memory in autoethnography. In: S. Holman Jones, T. E. Adams, and C. Ellis. eds*. Handbook of Autoethnography*. Walnut Creek, CA: Left Coast Press. pp. 406-424.

Goodson, I., (2006). Moral Imperatives in Contentious Times—Featuring "The Rise of the Life Narrative". *Teacher Education Quarterly.* 33(4), 7-21.

Graells-Garrido, E., Ferres, L., Caro, D., And Bravo, L., (2018). The effect of Pokémon Go on the pulse of the city: a natural experiment. *EPJ Data Science*. 6(23), 1-19.

Grey, C. and O'Toole, M., (2020). The Placing of Identity and the Identification of Place: "Place-Identity" in Community Lifeboating. *Journal of Management Inquiry*. 29(2), 206-219.

Griffin, A., (2016). POKEMON GO TURNS MAN'S HOME INTO A 'GYM', CAUSING CHAOS. *Independent* [online]. (14 July). [viewed 30/04/2019]. Available from: independent.co.uk/life-style/gadgets-and-tech/gaming/pokemon-go-man-s-house-accidentally-turned-gym-causing-huge-problems-a7129756.html

Hackett, A., (2016). Young Children as Wayfarers: Learning about Place by Moving Through It. *Children & Society*. 30, 169-179.

Hamari, J., Malik, A., Koski, J. and Johri, A., (2019). Uses and Gratifications of Pokémon Go: Why do People Play Mobile Location-Based Augmented Reality Games? *International Journal of Human-Computer Interaction*. 35(9), 804-819.

Hammit, W. E., Backlund, E. A., and Bixler, R. D., (2006). Place Bonding for Recreation Places: Conceptual and Empirical Development. *Leisure Studies*. 25(1), 17-41.

Harris, P. B., Brown, B. B. and Werner, C. M., (1996). Privacy regulations and place attachment: Predicting attachment to a student family housing facility. *Journal of Environmental Psychology*. 16, 287-301.

Harvey, L., (2017). Language learning motivation as ideological becoming. *System*. 65, 69-77.

Hayes, E. and Duncan, S. eds., (2012). *Learning In Video Game Affinity Spaces*. New York: P. Lang.

Hayes, E. R. and Lee Y. N., (2012). Specialist Language Acquisition and 3D Modding. In: E. R. Hayes and S. C. Duncan, eds. *Learning in Video Game Affinity Spaces*. New York: Peter Lang. pp. 186-211.

Hendricks, T., (2020). Play Studies: A Brief History. *American Journal of Play*. 12(2), 117-155.

Hernandez, K. C. and Ngunjiri, F. W., (2013). Relationships and Communities in Autoethnography. In: S. Holman Jones, T. E. Adams and C. Ellis, eds. *Handbook of Autoethnography.* Walnut Creek, CA: Left Coast Press. pp. 262-280.

HeroVoltsy, (2019). Pokémon Sword and Shield – Episode 1 Galar Gang! [online]. *YouTube*. [Viewed 14 March 2019]. Available from: https://www.youtube.com/watch?v=FdrBqF_ExLo

Hidalgo, M. C. and Hernandez, B., (2001). Place attachment: conceptual and empirical questions. *Journal of Environmental Psychology*. 21, 273-281.

Hjorth, L. and Richardson, I., (2014). *Gaming in Social, Locative and Mobile Media*. Houndmills: Palgrave.

Holman Jones, S, Adams, T., and Ellis, C., (2013). *Handbook of Autoethnography*. Walnut Creek, CA: Left Coast Press.

Holman Jones, S., (1999). Torch. *Qualitative Inquiry*. 5, 280–304.

Holman Jones, S., and Pruyn, M., (2018). *Critical Autoethnography, Performance, and Pedagogy*. United Kingdom, Palgrave Macmillan.

Horst, H., Herr-Stephenson, B., and Robinson, L., (2010). Media ecologies. In: M. Ito et al., eds. *Hanging out, messing around, geeking out: Living and learning with new media*. Cambridge, MA: MIT Press. pp. 29–78.

Howell, E., (2017). Pokémon GO: Implications for Literacy in the Classroom. *The Reading Teacher*. 70(6), 729-732.

Hughes, B., (2002). *A Playworker's Taxonomy of Play Types.* 2nd ed. London: PlayLink.

Huizinga, J., (1955). *Homo ludens: A study of the play element in culture*. Boston: Beacon.

Hutt, C., (1979). Play in the under 5s: Form, Development and Function. In: J. G. Howell, ed. *Modern Perspectives in the Psychiatry of Infancy*. The Hague: Bruner/Maazel. pp. 94–141.

Ingold, T., (2007). *Lines. A Brief History*. Routledge: London.

Innocent, T. and Leorke, D., (2019). Heightened intensity: Reflecting on player experiences in Wayfinder Live. *Convergence: The International Journal of Research into New Media Technologies.* 25(1), 18-30.

Innocent, T. and Leorke, D., (2020). (De)coding the City. Analysing Urban Play through Wayfinder Live. *American Journal of Play*. 12(3), 270-304.

Juul, J., (2009). *A Casual Revolution: Reinventing Video Games and Their Players*. Cambridge: The MIT Press.

Kaczmarek, L. D, Misiak, M., Behnke, M., Dziekan M., Guzik, P. and Mickiewicz, A., (2017). The Pikachu effect: Social and health gaming motivations lead to greater benefits of Pokemon GO use. *Computers in Human Behavior.* 75, 356-363.

Kamboj, A. K and Krishna, S. G., (2017). Pokémon GO: An innovative smartphone gaming application with health benefits. *Primary Care Diabetes*. 2, 397-399.

Kim, G. M and Johnson, L. L., (2021). Playful Practices: Reimagining Literacy Teacher Education through Game-Based Curriculum Design. *Research in the Teaching of English.* 55(3), 241-264.

Knobel, M., and Lankshear, C., (2008). Digital literacy and participation in online social networking spaces. *Digital literacies: Concepts, policies and practices*. pp. 249-278.

Koepp, B., (2020). Pokémon Go players fed up with paid research after Galarian Mr Mime event. *Dexerto* [online]. (11 December). [viewed 01/02/2021]. Available from: https://www.dexerto.com/pokemon/pokemon-go-players-fed-up-with-paid-research-after-galarian-mr-mime-event-1478499/

Kogan, L., Hellyer, P., Duncan, C. and Schoenfeld-Tacher, R., (2017). A pilot investigation of the physical and psychological benefits of playing Pokémon GO for dog owners. *Computers in Human Behavior.* 76, 431-437.

Kohn, K., (2016). Battling It Out in Pokémon Go: Libraries Up Their Game. *ILA Reporter.* October, 8-11.

Koro-Ljungberg, M. and Douglas, E. P., (2008). State of Qualitative Research in Engineering Education: Meta-Analysis of JEE Articles 2005-2006. *Journal of Engineering Education.* April 2008, 163-175.

Kress, G., (2009). *Multimodality: A Social Semiotic Approach to Contemporary Communication.* London: Routledge.

Kubanyiova, M., (2008). Rethinking research ethics in contemporary applied linguistics: the tension between macroethical and microethical perspectives in situated research. *The Modern Language Journal*. 92(4), 503-518.

Kyle, G., Graefe, A. and Manning, R., (2005). Testing the dimensionality of place attachment in recreational settings. *Environment and Behavior.* 37(2), 153-177.

Lammers, J. C., (2011). 'The Hangout Was Serious Business': exploring literacies and learning in an online Sims fan fiction community. *ProQuest Digital Dissertations*.

Lammers, J. C., Curwood, J. S. and Magnifico, A. M., (2012). Toward an affinity space methodology: Considerations for literacy research. *English Teaching: Practice and Critique*. 11(2), 44–58.

Lammes, S. and Wilmott, C., (2018). The map as playground: Location-based games as cartographical practices. *Convergence: The International Journal of Research into New Media Technologies*. 24(6), 648–665.

Lankshear, C. and Knobel, M., (2006). *New Literacies*. 2nd ed. Maidenhead, UK: Open University Press.

Lapadat, J. C., (2009). Writing our way into shared understanding: Collaborative autobiographical writing in the qualitative methods class. *Qualitative Inquiry*. 15(6), 955-979.

Lapadat, J. C., (2017). Ethics in Autoethnography and Collaborative Autoethnography. *Qualitative Inquiry.* 23(8), 589-603.

Lave, J., and Wenger, E., (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.

Laycock, J. P., (2015). *Dangerous Games: What the Moral Panic Over Role-Playing Games Says About Play, Religion, and Imagined World*. California: California University Press.

Lee, J., (2021). Pokémon Go player becomes world's first to hit level 50. *Polygon* [online]. (25 January). [viewed 03/03/2021]. Available from: https://www.polygon.com/2021/1/25/22248658/pokemon-go-player-level-50-world-first

Lee, T. H. and Shen, Y. L., (2013). The influence of leisure involvement and place attachment on destination loyalty: Evidence from recreationists walking their dogs in urban parks. *Journal of Environmental Psychology*. 33, 76-85.

Lefebvre, H., (1991). The Production of Space. Oxford: Blackwell.

Leorke, D., (2019). *Location-Based Gaming: Play in Public Space*. Singapore: Palgrave Macmillan.

Lewicka, M., (2005). Ways to Make People Active Role of Place Attachment, Cultural Capital and Neighborhood Ties. *Journal of Environmental Psychology*. 4, 381-395.

Lewicka, M., (2011). Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology*. 31(3), 207-230.

Li, C., (2019). Expanding the Gameboard of the World with Small Businesses [online]. *Niantic*. [Viewed 23 June 2020]. Available from: https://nianticlabs.com/en/blog/sponsored-locations-update-110619/

Liberati, N., (2018). Phenomenology, Pokémon Go, and Other Augmented Reality Games. *Human Studies*. 41, 211-232.

Lomas, N., (2016). [Pokémon GO] [digital image]. [Viewed 18 April 2021]. Available from: https://techcrunch.com/2016/07/11/pokemon-go-wants-to-catch-almost-all-your-permissions

Low, S. M. and Altman, I., (1992). *Place attachment*. US: Springer.

Luke, R., (2006). The phoneur: Mobile commerce and the digital pedagogies of the wireless web. In: P. Trifonas, ed. *Communities of Difference: Culture, Language, Technology*. London: Palgrave Macmillan. pp. 185-204.

Mackey, M., (2010). Reading from the Feet Up: The Local Work of Literacy. *Children's Literature in Education*. 41, 323-339.

Mackinder, M., (2017). Footprints in the woods: 'tracking' a nursery child through a Forest School session. *Education 3-13*. 45(2), 176-190.

Madgin, R., Bradley, L. and Hastings, A., (2016). Connecting physical and social dimensions of place attachment: What can we learn from attachment to urban recreational spaces? *Journal of Housing and the Built Environment*. 31(4), 677-693.

Magnifico, A. M., Lammers, J. C., and Fields, D. A., (2018). Affinity spaces, literacies and classrooms: tensions and opportunities. *Literacy*. 52(3), 145-152.

Malik, A., Hiekkanen, K., Hussain, Z., Hamari, J. and Johri, A., (2019). How players across gender and age experience Pokémon Go? Universal Access in the Information Society [online]. [Viewed 24 April 2019]. Available from: https://doi.org/10.1007/s10209-019-00694-7

Malone, K. and Hasluck, L., (1998). Geographies of Exclusion: Young People's Perceptions and Use of Public Space. *Family Matters*. 49, 20-26.

Manzo, L. C. and Perkins, D. D., (2006). Finding common ground: The importance of place attachment to community participation and planning. *Journal of Planning Literature*. 20(4), 335-350.

Mardell, B., Wilson, D., Ryan, J., Ertel, K., Krechevsky, M., and Baker, M., (2016). *Towards a pedagogy of play.* Cambridge, MA: Harvard Graduate School of Education.

Marone, V., (2015). From discussion forum to discursive studio: Learning and creativity in design-oriented affinity spaces. *Games and Culture*. 10(1), 81-105.

Marsh, J., Plowman, L., Yamada-Rice, D., Bishop, J. and Scott, F., (2016). Digital Play: A New Classification. *Early Years*. 36(3), 242-253.

Massey, D., (1995). The conceptualization of place. In: D. Massey and P. Jess, eds. *A place in the world? Places, cultures and globalization*. Oxford, UK: Oxford University Press. pp. 45-77.

Massey, D., (2005). *For Space*. London: Sage.

Mavoa, J., Carter, M., and Gibbs, M., (2017). Children and Minecraft: A survey of children's digital play. *New Media & Society*. 20(9), 3283–3303.

McConnel, J. (2019). Fan Spaces as Third Spaces: Tapping into the Creative Community of Fandom. *English Journal.* 109(1), 45-51.

McDowell, L., (1983). Towards an Understanding of the Gender Division of Urban Space. *Environment and Planning: Society and Space.* 1(1), 59–72.

McGonigal, J., (2006). *This Might be a Game: Ubiquitous Play and Performance at the Turn of the Twenty-First Century*. Dissertation, University of California. [Viewed 26 October 2019]. Available from https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.83.364&rep=rep1&type=pdf

Meyers, E. M., Erickson, I., and Small, R. V., (2013). Digital literacy and informal learning environments: an introduction. *Learning, Media and Technology*. 38(4), 355-367.

Mills, K. A., and Comber, B., (2015). Socio-spatial approaches to literacy studies: Rethinking the social constitution and politics of space. In: J. Rowsell and K. Pahl, eds. *The Routledge handbook of literacy studies*. New York, NY: Routledge. pp. 91–103.

Minotti, M., (2017). Pokémon Go passes $1.2 billion in revenue and 752 million downloads. *VentureBeat* [online]. (30 June). [viewed 02/08/2020]. Available from: https://venturebeat.com/2017/06/30/pokemon-go-passes-1-2-billion-in-revenue-and-752-million-downloads/

Montola, M., Stenros, J. and Waern, A., (eds.). (2009). *Pervasive Games: Theory and Design*. Burlington, MA: Morgan Kaufmann.

Nelson, R., (2018). Pokémon GO revenue hits $1.8 billion on its two year launch anniversary. *Sensor Tower* [online]. (6 July). [viewed 02/08/2020]. Available from: https://sensortower.com/blog/pokemon-go-revenue-year-two

New London Group, (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Education Review*. 66(1), 60–92.

Niantic Inc., (2020). Eligibility Criteria [online]. *Niantic Wayfarer*. [viewed 11/08/2020]. Available from: https://niantic.helpshift.com/a/wayfarer/?l=en&p=web&s=wayspot-eligibility&f=eligibility-criteria

Niantic, (2020). A History of Viewing the World Differently [online]. *Niantic.* [Viewed 23 June 2020]. Available from: https://nianticlabs.com/en/about/

Nintendo, (1996). [Poké Ball] [digital image]. [Viewed 23 March 2019]. Available from: https://bulbapedia.bulbagarden.net/wiki/Pok%C3%A9_Ball_(item)

Nintendo, (2019). [Professor Cerise] [digital image]. [Viewed 13 June 2020]. Available from: https://bulbapedia.bulbagarden.net/wiki/Professor_Cerise

Norris, J., Sawyer, R. D. and Lund, L., (2012). *Duoethnography: Dialogic methods for social, health, and educational research*. Walnut Creek, CA: Left Coast Press.

Oldenburg, R., (1989). *The Great Good Place*. New York: Paragon House.

Oleksy, T and Wnuk, A., (2017). Literacy and Education: Understanding the New Literacy Studies in the Classroom. *Computers in Human Behavior*. 76, 3-8.

Opie, I., and Opie. P., (1959). *The Lore and Language of Schoolchildren*. Oxford: Oxford University Press.

Opie, I., and Opie. P., (1969). *Children's Games in Street and Playground*. Oxford: Clarendon Press.

Opie, I., and Opie. P., (1985). *The Singing Game*. Oxford: Oxford University Press.

Opie, I., and Opie. P., (1997). *Children's Games with Things*. Oxford: Oxford University Press.

Ortiz de Gortari, A. B., (2018). Empirical study on Game Transfer Phenomena in a location-based augmented reality game. *Telematics and Informatics.* 35, 382-396.

Osman, R., Mulíček, O. and Seidenglanz, D., (2019). Regional heteroglossia: the metropolitan region as a dialogical landscape. *European Planning Studies.* 27(11), 2079-2098.

Pahl, K. and Rowsell, J. eds., (2012). *Literacy and Education: Understanding the New Literacy Studies in the Classroom*. 2nd ed. London: Sage.

Pauw, D., Warrick, E., Boston, C., Preece, J. and Clegg, T., (2017). Connecting Affinity Spaces To Places And Back: A Look at Pokémon Go. *CSCW 2017 Companion*. February 25 - March 01 2017. USA: Portland. pp. 275-278.

Pearce, C., (2009). *Communities of Play: Emergent Cultures in Multiplayer Games and Virtual Worlds*. Cambridge, Massachusetts: MIT Press.

Pelias, R., (2013). Writing autoethnography. In: S. Holman Jones, T. E. Adams and C. Ellis, eds. *Handbook of Autoethnography*. Walnut Creek, CA: Left Coast Press. pp. 384-405.

Pellicone, A., and Ahn, J., (2018). Building Worlds: A Connective Ethnography of Play in Minecraft. *Games and Culture*. 13(5), 440-458.

Pierce, J., (2019). How Can We Share Space? Ontologies of Spatial Pluralism in Lefebvre, Butler, and Massey. *Space and Culture.* 00(0), 1-13.

Plowman, L. and Stephen, C., (2008). The Big Picture? Video and The Representation of Interaction. *British Educational Research Journal*. 34(4), 541-565.

Pokémon Database, (2020). [Type chart] [digital image]. [Viewed 24 August 2018]. Available from: https://pokemondb.net/type

Potts, R. and Yee, L., (2019). Pokémon Go-ing or staying: exploring the effect of age and gender on augmented reality game player experiences in public spaces. *Journal of Urban Design*. 24(4), 1-18.

Proshansky, H. M., Fabian, A. K. and Kaminoff, R., (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology.* 3, 57–8.

Raban, J., (1999). *Passage to Juneau: A Sea and Its Meanings*. New York: Pantheon Books.

Raihan, J. P., Putri, Y. R., (2018). Communication Pattern Discord Group Through Application Discord. *e-Proceeding Management*. 2(3), 4161–9.

Rauschnabel, P. A., Rossmann, A. and Claudia tom Dieck, M., (2017). An adoption framework for mobile augmented reality games: The case of Pokemon Go. *Computers in Human Behavior*. 76, 276-286.

Reiner, A., (2021). It'll Take Me Another 20 Years To Reach Pokémon Go's New Level Cap. *Gameinformer* [online]. (29 January). [viewed 01/02/2021]. Available from: https://www.gameinformer.com/opinion/2021/01/29/itll-take-me-another-20-years-to-reach-pokemon-gos-new-level-cap.

Roth, W. M., (2005). *Auto/biography and auto/ethnography: Praxis of research method*. The Netherlands, Brill Sense.

Russel, B., (1999). Headmap: Location aware devices [online]. *Headmap Manifeso.* [Viewed 29 April 2020]. Available at: http://www.technoccult.net/wp-content/uploads/library/headmap-manifesto.pdf

Saks, A. L., (1996). Viewpoints: Should Novels Count as Dissertations in Education? *Research in the Teaching of English*. 30(4), 403-427.

Salen, K. and Zimmerman, E., (2003). *Rules of play: Game design fundamentals*. Cambridge, MA: The MIT Press.

Scannell, P., (1996). *Radio, television and modern life: A phenomenological approach*. Oxford, UK: Blackwell.

Schechner, R., (1988). Play. *Play and Culture.* 1(1), 3-27.

Schneier, J., and Taylor, N., (2018). Handcrafted gameworlds: Space-time biases in mobile Minecraft play. *New Media & Society*. 20(9), 3420–3436.

Serino, M., Cordrey, K., McLaughlin, L., Milanaik, R.L., (2016). Pokémon Go and augmented virtual reality games: a cautionary commentary for parents and pediatricians. *Curr. Opin. Pediatr*. 28(5), 673–677.

Sicart, M. (2014). *Play Matters*. Cambridge, MA: MIT Press.

Sicart, M., (2016). Play and the City. *Navigationen - Zeitschrift für medien- und kulturwissenschaften*. 16(2), 25-40.

Smith, M. J., (2008). Addressing the Security Needs of Women Passengers on Public Transport. *Security Journal*. 21(1), 117–133.

Soja, E. W., (1999). *Thirdspace: Journeys to Los Angeles and Other Real-and-Imagined Places*. Oxford: Blackwell.

Sousanis, N., (2015). *Unflattening.* Cambridge, USA: Harvard University Press.

Spohrer, J. C., (1999). Information in Place. *IBM Systems Journal*. 38(4), 602-628.

Squire, K., (2011). *Video games and learning: Teaching and participatory culture in the digital age*. New York: Teachers College Press.

Staudt Willet, K. B. and Carpenter, J. P., (2021). Teachers on Reddit? Exploring contributions and interactions in four teaching-related subreddits. *Journal of Research on Technology in Education*. 52(2), 216-233.

Steinkuehler, C., (2010). Video games and digital literacies. *Journal of Adolescent & Adult Literacy*. 54(1), 61-63.

Stenros, J., Waern, A. and Montola, M., (2012). Studying the Elusive Experience in Pervasive Games. *Simulation & Gaming*. 43(3), 339-355.

Stephen, C., and Plowman L., (2014). Digital Play. In: L. Brooker, M. Blaise, and S. Edwards, eds. *The SAGE Handbook of Play and Learning in Early Childhood*. London: Sage. pp. 330–341.

Stevens, Q., (2007). *The Ludic City: Exploring the Potential of Public Spaces*. London: Routledge

Stevens, Q., (2012). The How and Where of Urban Play [online]. *Vimeo*. [Viewed 30 May 2020]. Available from: https://vimeo.com/54131664.

Stevens, Q., (2017). Play. In: M. Jayne and K. Ward, eds. *Urban Theory: New Critical Perspectives*. London: Routledge. pp. 218–30.

Stokols, D. and Shumaker, S. A., (1981). People and places: a transactional view of settings. In: J. Harvey, ed. *Cognition, Social Behaviour and the Environment*. pp. 441–488.

Stokols, D., (1979). A congruence analysis of human stress. In: I. G. Sarason, and C. D. Spielberger, eds. *Stress and Anxiety*. Washington, DC: Hemisphere Press.

Street, B. V. (ed.) (1993). *Cross-Cultural Approaches to Literacy*. Cambridge: Cambridge University Press.

Street, B. V., (1995). *Social Literacies: Critical Approaches to Literacy in Development, Ethnography, and Education*. London: Longman.

Street, B. V., (1997). The implications of the 'New Literacy Studies' for literacy education. *English in Education*. 31(3), 45–59.

Street, B. V., (2005). At last: Recent applications of New Literacy Studies in educational contexts. *Research in the Teaching of English*. 39(4), 417–423.

Sutko, D. M. and de Souza e Silva, A., (2010). Location-aware mobile media and urban sociability. *New Media & Society*. 13(5), 807-823.

Sutton-Smith, B., (2001). *The Ambiguity of Play*. USA: Harvard University Press.

Tabacchi, M., Caci, B., Cardaci, M. and Perticone, V., (2017). Early usage of Pokémon Go and its personality correlates. *Computers in Human Behavior*. 72, 163-16.

Tassi, P.(2017). Nintendo Seems Physically Uncomfortable With Taking Money From Mobile Players. *Forbes* [online]. (28 May). [Viewed 01/02/2021]. Available from: https://www.forbes.com/sites/insertcoin/2017/05/28/nintendo-seems-physically-uncomfortable-with-taking-money-from-mobile-players/?sh=246fa63226f1

Tassi, P.(2021). Pokémon GO made nearly 2 billion during 2020s pandemic. *Forbes* [online]. (8 January). [Viewed 01/02/2021]. Available from: https://www.forbes.com/sites/paultassi/2021/01/08/pokmon-go-made-nearly-2-billion-during-2020s-pandemic/?sh=4eadf7927afc

Tech Insider, (2016). "The Silph Road," the most popular "Pokémon GO" guide [online]. *YouTube.* [Viewed 11 February 2020]. Available from: https://www.businessinsider.com/silph-road-reddit-pokemon-go-guide-2016-10?r=US&IR=T

The Silph Road, (2018). The Numbers: April Community Day in the Silph League [online]. *The Silph Road.* [Viewed 12 February 2020]. Available from: https://thesilphroad.com/news/silph-league-april-community-day-stats/#0/36.6/15

Tobin, S., (2013). *Portable Play in Everyday Life: The Nintendo DS*. New York: Palgrave.

Tolich, M., (2010). A critique of current practice: Ten foundational guidelines for autoethnographers. *Qualitative Health Research*. 20, 1599-1610.

Trahar, S., (2009). Beyond the Story Itself: Narrative Inquiry and Autoethnography in Intercultural Research in Higher Education. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research.* 10(1), p. 30.

Tran, K., (2018). Families, resources, and learning around Pokémon Go. *E-Learning and Digital Media*. 15(3), 113-127.

Tschumi, B., (1996). *Architecture and Disjunction*. Cambridge, MA: MIT Press.

Tuan, Y. F., (1977). *Space and Place: The Perspective of Experience*. Minneapolis, University of Minneapolis.

Uchida, H. and Nelson, A., (2010). *Agglomeration Index: Towards a New Measure of Urban Concentration*. Washington DC, USA: World Bank.

Valentine, G. and Waite, L., (2012). Negotiating Difference through Everyday Encounters: The Case of Sexual Orientation and Religion and Belief. *Antipode*. 44(2), 474-492.

Van Maanen, J., (1988). *Tales of the field: On writing ethnography.* 2nd ed. Chicago: University of Chicago Press.

Vaterlaus, J. M., Frantz, K. and Robecker, T., (2019). "Reliving my Childhood Dream of being a Pokémon Trainer": An Exploratory Study of College Student Uses and Gratifications Related to Pokémon Go. *International Journal of Human-Computer Interaction*. 35(7), 596-604.

Vella, K., Johnson, D., Cheng, V. W. S., Davenport, T., Mitchell, J., Klarkowski, M. and Phillips, C., (2019). A Sense of Belonging: Pokémon GO and Social Connectedness. *Games and Culture*. 14(6), 583-603.

Vickers, M. H., (2007). Autoethnography as sensemaking: A story of bullying. *Culture and Organization*. 13(3), 223-237.

Wake, J. D., Guribye, F. and Wasson, B., (2018). Learning through collaborative design of location-based games. *International Society of the Learning Sciences.* 13(2), 167-187.

Waller, T., (2007). 'The trampoline tree and the swamp monster with 18 heads': Outdoor play in the foundation stage and foundation phase. *Education 3–13*. 35(4), 393–407.

Waller, T., (2014). Voices in the park: Researching the participation of young children in outdoor play in early years settings. *Management in Education*. 28(4), 161-166.

Walsh, A., (2020). Playful learning for information literacy development. *International Federation of Library Associations and Institutions*. 46(2), 143-150.

Wei, Li., (2011). Moment Analysis and translanguaging space: Discursive construction of identities by multilingual Chinese youth in Britain. *Journal of Pragmatics*. 43(5), 1222-1235.

Wenger, E., (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.

Wenger, E., (2010). Communities of Practice and Social Learning Systems: the Career of a Concept. In: C. Blackmore, ed. *Social Learning Systems and communities of practice*. Springer Verlag and the Open University. pp. 179-198

Whitton, N. and Langan, M., (2018). Fun and games in Higher Education: An analysis of UK student perspectives. *Teaching in Higher Education.* 24(8), 1000-1013.

Whitton, N. and Moseley, A., (2019). *Playful Learning: Events and Activities to Engage Adults.* Abingdon: Routledge.

Whitzman, C., (2007). Stuck at the Front Door: Gender, Fear of Crime and the Challenge of Creating Safer Space. *Environment and Planning.* 39(11), 2715–2732.

Whitzman, C., ed., (2013). *Building Inclusive Cities: Women's Safety and The Right to The City*. New York, NY: Routledge.

Williams, D. R. and Roggenbuck, J. W., (1989). Measuring place attachment: some preliminary results (Abstract). *Proceedings of the National Recreation and Parks Association Symposium on Leisure Research*. October 1989. San Antonio, TX.

Williams, D. R., Patterson, M. E., Roggenbuck, J. W. and Watson, A. E., (1992). Beyond the commodity metaphor: examining emotional and symbolic attachment to leisure. *Leisure Sciences.* 14, 29–46.

Winkler, I., (2018). Doing Autoethnography: Facing Challenges, Taking Choices, Accepting Responsibilities. *Qualitative Inquiry.* 24(4), 236-247.

Wong, F.Y., (2017). Influence of Pokémon Go on physical activity levels of university players: a cross-sectional study. *International Journal of Health Geography*. 16(1), 8.

Wu, H., (2016). Video Game Prosumers: Case Study of a Minecraft Affinity Space. *Visual Arts Research*. 42(1), 22-37.

Yang, C. C. and Liu, D., (2017). Motives matter: Motives for playing Pokémon Go and implications for well-being. *Cyberpsychology, Behavior, and Social Networking*. 20(1), 52-57.

Yavuz, N. and Welch, E. W., (2010). Addressing Fear of Crime in Public Space: Gender Differences in Reaction to Safety Measures in Train Transit. *Urban Studies*. 47(12), 2491–2515.

Yon, A. and Nadimpalli, S., (2017). Cities for Whom? Re-Examining Identity, to Reclaim the Right to the City for Women. *Australian Planner*. 54(1), 33–40.

Zach, F. J. and Tussyadiah, I. P., (2017). To catch them all—the (un)intended consequences of Pokémon Go on mobility, consumption, and wellbeing. In: R. Schegg and B. Stangl, eds. *Information and Communication Technologies in Tourism*. pp. 217-227.

Appendices

Appendix 1 – Timeline of Pokémon games (UK Release Years)

Generation	Year	Total Pokémon	Region	Title of Games
1	1999	151	Kanto	Pokémon Red and Blue
2	2001	251	Johto	Pokémon Gold and Silver
3	2003	386	Hoenn	Pokémon Ruby and Sapphire
4	2007	493	Sinnoh	Pokémon Diamond and Pearl
5	2011	649	Unova	Pokémon Black and White
6	2013	721	Kalos	Pokémon X and Y
7	2016	809	Alola	Pokémon Sun and Moon
8	2019	898	Galar	Pokémon Sword and Shield

Dates are taken from Bulbapedia (2020a)

Appendix 2 – Hughes (2002) Classification of Play

Play Type	Definition
1. Symbolic play	Occurs when children use an object to stand for another object, e.g. a stick becomes a horse
2. Rough and tumble play	When children are in physical contact during play, but there is no violence
3. Socio-dramatic play	The enactment of real-life scenarios that are based on personal experiences, e.g. playing house, going shopping
4. Social play	Play during which rules for social interaction are constructed and employed
5. Creative play	Play that enables children to explore, develop ideas and make things
6. Communication play	Play using words, songs, rhymes, poetry, etc.
7. Dramatic play	Play that dramatises events in which children have not directly participated, e.g. TV shows
8. Locomotor play	Play which involves movement, e.g. chase, hide and seek
9. Deep play	Play in which children encounter risky experiences, or feel as though they have to fight for survival
10. Exploratory play	Play in which children explore objects, spaces, etc. through the senses in order to find out information, or explore possibilities
11. Fantasy play	Play in which children can take on roles that would not occur in real life, e.g. be a superhero
12. Imaginative play	Play in which children pretend that things are otherwise
13. Mastery play	Play in which children attempt to gain control of environments, e.g. building dens
14. Object play	Play in which children explore objects through touch and vision. They may play with the objects
15. Role play	Play in which children might take on a role beyond the personal or domestic roles associated with socio-dramatic play
16. Recapitulative play	Play in which children might explore history, rituals and myths and play in ways that resonate with the activities of our human ancestors (lighting fires, building shelters and so on)

Appendix 3 – Gee and Hayes (2012)
Characteristics of a Nurturing Affinity Space

1. A common endeavour for which at least many people in the space have a passion—not race, class, gender, or disability—is primary
2. Affinity spaces are not segregated by age
3. Newbies, masters, and everyone else share a common space
4. Everyone can, if they wish, produce and not just consume
5. Content is transformed by interaction
6. The development of both specialist and broad, general knowledge are encouraged, and specialist knowledge is pooled
7. Both individual and distributed knowledge are encouraged
8. The use of dispersed knowledge is facilitated
9. Tacit knowledge is used and honoured; explicit knowledge is encouraged
10. There are many different forms and routes to participation
11. There are many different routes to status.
12. Leadership is porous and leaders are resources
13. Roles are reciprocal
14. A view of learning that is individually proactive, but does not exclude help, is encouraged.
15. People get encouragement from an audience and feedback from peers, though everyone plays both roles at different times

Appendix 4 – Niantic Statement

A History of Viewing the World Differently

At Niantic, we have a long history of viewing the world differently. We are the world's leading augmented reality company with an initial focus on augmented reality games. We see a future where our technology paves the way for new entertainment experiences, advanced robotics, and scaled adaptive computing — and games are where we incubate some of our most audacious thinking.

We've built the world's only planet-scale augmented reality platform for current and future generations of augmented reality hardware. We think of this platform as a global operating system for applications that unite the digital world with the physical world.

Technology has already transformed our lives, bringing together people, ideas, and information in unimaginable ways. We're hard at work on a new technological chapter that connects the digital world with reality.

When the digital world and reality come together, something magical happens. But you need to understand reality in order to augment it….

We pioneered real-world gaming — adventures on foot with others — which has helped transform the Earth into the new game board.

Niantic (2020)

Appendix 5 – Niantic Blog

Expanding the Gameboard of the World with Small Businesses

It's our vision to create a gameboard that embraces meaningful and interesting locations and ultimately feels more relevant for our players wherever they are in the world. We're developing technologies that expand our ability to map and understand the world around you which are essential in creating a better and more immersive experience whether you're playing in a city or in a rural area. High level players can even submit new game locations with photos, titles and additional information they want in their game through the Wayfarer program, creating more ways for players to build out their own gameboard.

The world is also made up of businesses that are a core part of everyday life. On a regular Saturday, for many of us, going out in the world more often than not means visiting businesses -- from running errands at stores to visiting restaurants and other venues to socialize. As we look to expand the gameboard to be even more relevant to our players' daily lives, these businesses, big and small, will play an integral role in blending the real and digital worlds together to bring magic and fun to more everyday moments - even running errands.

Today we're announcing a Beta program for qualifying small and medium businesses with brick and mortar stores to easily activate sponsored locations. While we've worked with large nationwide businesses such as McDonalds and 7-Eleven in Japan, AT&T in the US and many more to create sponsored locations, this is the first time mom and pop shops can easily and quickly become a part of Niantic's products.

We are always transparent and open to our players regarding sponsored locations and feel they mutually benefit our players and these businesses. Players have more locations where they are welcomed to play with their friends and access to special experiences sponsored by businesses, and businesses can attract more awareness and foot traffic while creating new layers of fun engagement at their real-world locations. In addition, this may also create a potential new revenue stream for developers building experiences on the Niantic Real-world Platform, without the interruptive nature of traditional advertising.

We do want to take a moment and remind everyone that, by default, sponsored locations are not visible to children without explicit parental permission. For more information on how we obtain parental consent and how we maintain our players' privacy please visit our privacy policy here.

Starting today, small and medium sized businesses in the US can apply to join our Sponsored Locations Early Access Beta program, before we begin to launch in December, by visiting: www.nianticlabs.com/sponsoredlocations
We're looking forward to building the gameboard together with our players and businesses around the world.

—Carla Li, Product Lead for Sponsorships

Li (2019)

Appendix 6 – Pokémon Professors

Region	Name	Specialism
Kanto	Professor Oak	The relationship between Pokémon and humans
Johto	Professor Elm	Pokémon breeding patterns
Hoenn	Professor Birch	Pokémon habitats
Sinnoh	Professor Rowan	Pokémon evolution
Unova	Professor Juniper	The origins of Pokémon
Kalos	Professor Sycamore	Mega-Evolution
Alola	Professor Kukui	Pokémon moves
Galar	Professor Magnolia	Dynamax
Pokémon GO	Professor Willow	The regional distribution of Pokémon

Adapted from Bulbapedia (2020b)

Appendix 7 – Episode Time Stamps

Episode 1: A New Journey	a. Frecheville Library	14 July 2016
	b. Introducing the Professor	n/a
	c. The Royal Standard *(Bonnie)*	15 July 2016
	d. Community Days Tutorial	
	e. Weston Park (1)	15 April 2018
	f. Weston Park (2) *(Cilan)*	15 April 2018

Episode 2: Expanding Spaces	a. The Silph Road	17 June 2017
	b. Raid Battles Tutorial	n/a
	c. Weston Park (3)	19 June 2017
	d. Weston Park (4) *(Clemont)*	25 June 2017
	e. Limited Events Tutorial	n/a
	f. Discord (1)	29 July 2017

Episode 3: Exploring Dortmund	a. Pokémon GO Fest Tutorial	n/a
	b. Platz von Hiroshima	3 July 2019
	c. Dawn and Max *(Dawn) (Max)*	3 July 2019
	d. Pokémon Gyms Tutorial	n/a
	e. Dortmund City *(Iris)*	4 July 2019
	f. Steigenberger Dortmund	n/a
	g. GO Fest Research	5 July 2019
	h. Regional Pokémon Tutorial	n/a
	i. Trading Outpost *(James)*	5 July 2019

Episode 4: Walk on the Wild Side	a. Niantic Wayfarer Tutorial	
	a. Home	25 July 2020
	b. Bowman Drive Open Space (1)	25 July 2020
	c. Discord (2)	28 July 2020
	e. Bowman Drive Open Space (2)	31 July 2020
	f. The Moss Valley	31 July 2020

Narrated by Professor Brier
(Other Players)

Appendix 8 – Ethical Approval Letter

Downloaded: 28/10/2020
Approved: 02/07/2019

Benjamin Rhodes
Registration number: 160209475
School of Education
Programme: Doctorate of Education

Dear Benjamin

PROJECT TITLE: Pokemon GO: Learning and literacy practices
APPLICATION: Reference Number 023369

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 02/07/2019 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 023369 (form submission date: 25/06/2019); (expected project end date: 30/09/2020).
- Participant information sheet 1058626 version 5 (20/06/2019).
- Participant consent form 1058627 version 5 (20/06/2019).

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Your responsibilities in delivering this research project are set out at the end of this letter.

Yours sincerely

David Hyatt
Ethics Administrator
School of Education

Please note the following responsibilities of the researcher in delivering the research project:

- The project must abide by the University's Research Ethics Policy: https://www.sheffield.ac.uk/rs/ethicsandintegrity/ethicspolicy/approval-procedure
- The project must abide by the University's Good Research & Innovation Practices Policy: https://www.sheffield.ac.uk/polopoly_fs/1.671066!/file/GRIPPolicy.pdf
- The researcher must inform their supervisor (in the case of a student) or Ethics Administrator (in the case of a member of staff) of any significant changes to the project or the approved documentation.
- The researcher must comply with the requirements of the law and relevant guidelines relating to security and confidentiality of personal data.
- The researcher is responsible for effectively managing the data collected both during and after the end of the project in line with best practice, and any relevant legislative, regulatory or contractual requirements.

Appendix 9 – Consent Form

Please tick the appropriate boxes	YES	NO
Taking Episode in the Project		
I have read and understood the project information sheet dated 01/07/2019 and the project has been fully explained to me. *If you will answer NO to this question, please do not proceed with this consent form until you are fully aware of what your participation in the project will mean.*	☐	☐
I have been given the opportunity to ask questions about the project.	☐	☐
I agree to take part in the project. I understand that taking part in the project could include being: interviewed observed recorded (audio and video)	☐ ☐ ☐	☐ ☐ ☐
I understand that my taking part is voluntary and that I can withdraw from the study at any time. I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw.	☐	☐

How my information will be used during and after the project		
I understand my personal details such as name, phone number, address and email address etc. will not be revealed to people outside the project.	☐	☐
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that I will not be named in these outputs unless I specifically request this.	☐	☐
I understand and agree that other authorised researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.	☐	☐

I understand and agree that other authorised researchers may use my data in publications, reports, web pages, and other research outputs, only if they agree to preserve the confidentiality of the information as requested in this form.	☐	☐
I give permission for the data that I provide, such as audio recordings, to be deposited in White Rose Repository so it can be used for future research and learning.	☐	☐

So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.	☐	☐

Name of Participant [printed] Signature Date

Name of Researcher [printed] Signature Date

Benjamin Rhodes

Appendix 10 – Information Sheet
Describe your favourite Pokémon GO memory

Introduction:
My name is Professor Brief and I am a Pokémon GO player – in fact I've been playing Pokémon since I received Pokémon Blue for my eleventh birthday in the year 2000. As well as being a Pokémon player, I am now a Pokémon researcher - I study the games as a part of my degree at The University of Sheffield, England. To research the game, I need to talk to the players and this is where you can play a part. Thank you for taking your time to read through more information about my research into Pokémon GO. Please take your time to read through this information and let me know if you have any further questions.

Why have I been invited?
You have been selected to take part in this project as you are lucky enough to be a Pokémon GO player!

What is the purpose of this study?
The purpose of this study is to figure out the learning and literacy practices of Pokémon GO. This includes assessing how and why players play Pokémon GO. This will help understand what exactly makes Pokémon GO interesting and motivating for its players.

Do I have to take part?
It is entirely up to you to decide whether or not to take part!

Do I need to give consent?
If we're face-to-face:
… then you will need to sign a consent form before you take part.

If you post on my social media:
Twitter: @ProfessorBrier
Instagram: @ProfessorBrier
… then you will *not* be asked to sign a consent form. This is because you are sharing information within the public domain and your consent is assumed. Please be mindful when posting anything online.

If you email me:
Email: bpgrhodes1@sheffield.ac.uk
… then I will ask for consent before I use your responses in my project. I will send out an electronic link so you can consent wherever you are.

You can still withdraw without any negative consequences. You do not have to give a reason. If you wish to withdraw from the research, please use the contact details provided on the Consent Form.

What will happen to me if I take part? What do I have to do?
If you choose to take part, all you need to do is share your experiences with me playing Pokémon GO in any of the channels outlined above.

Additional Information

Will I be recorded and how will the recorded media be used?
You will not be audio or video recorded. I will be taking pictures to include in the project and for personal uses (I want memories to look back on too!). If anyone's face creeps into pictures I use in my project, I will blur them out.

What are the possible disadvantages and risks of taking part?
There are no expected disadvantages or risks to this project. However, any unexpected discomforts, disadvantages or risks that may arise during the research will be brought immediately to your attention.

What are the possible benefits of taking part?
There is no intended benefit of taking part. As this project aims to collect Pokémon GO gameplay information, you will play the game as you usually would, perhaps meeting new players and progressing further within the game.

Will my taking part in this project be kept confidential?
All the information that I collect about you during the course of the research will be kept strictly confidential and will only be accessible to me and members of my research team. You will not be able to be identified in any reports or publications unless you have given your explicit consent for this.

What is the legal basis for processing my personal data?
According to data protection legislation, I am required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice https://www.sheffield.ac.uk/govern/data-protection/privacy/general.'

What will happen to the data collected and the results of the research project?
All data will be stored on a secure University of Sheffield online cloud. This data will only be available for my supervisor and me to view. Your data will be identifiable. The results of the research will likely be published in the summer of 2021. You can request a copy via my email.

Your data will be stored for three years following the project's completion. All data will be stored securely. Due to the nature of this research it is likely that other researchers may find the data collected to be useful in answering future research questions. We will ask for your explicit consent for your data to be shared in this way.

Who is organising and funding the research?
This is a self-funded project through The University of Sheffield.

Who is the Data Controller?
The University of Sheffield will act as the Data Controller for this study. This means that the University is responsible for looking after your information and using it properly.

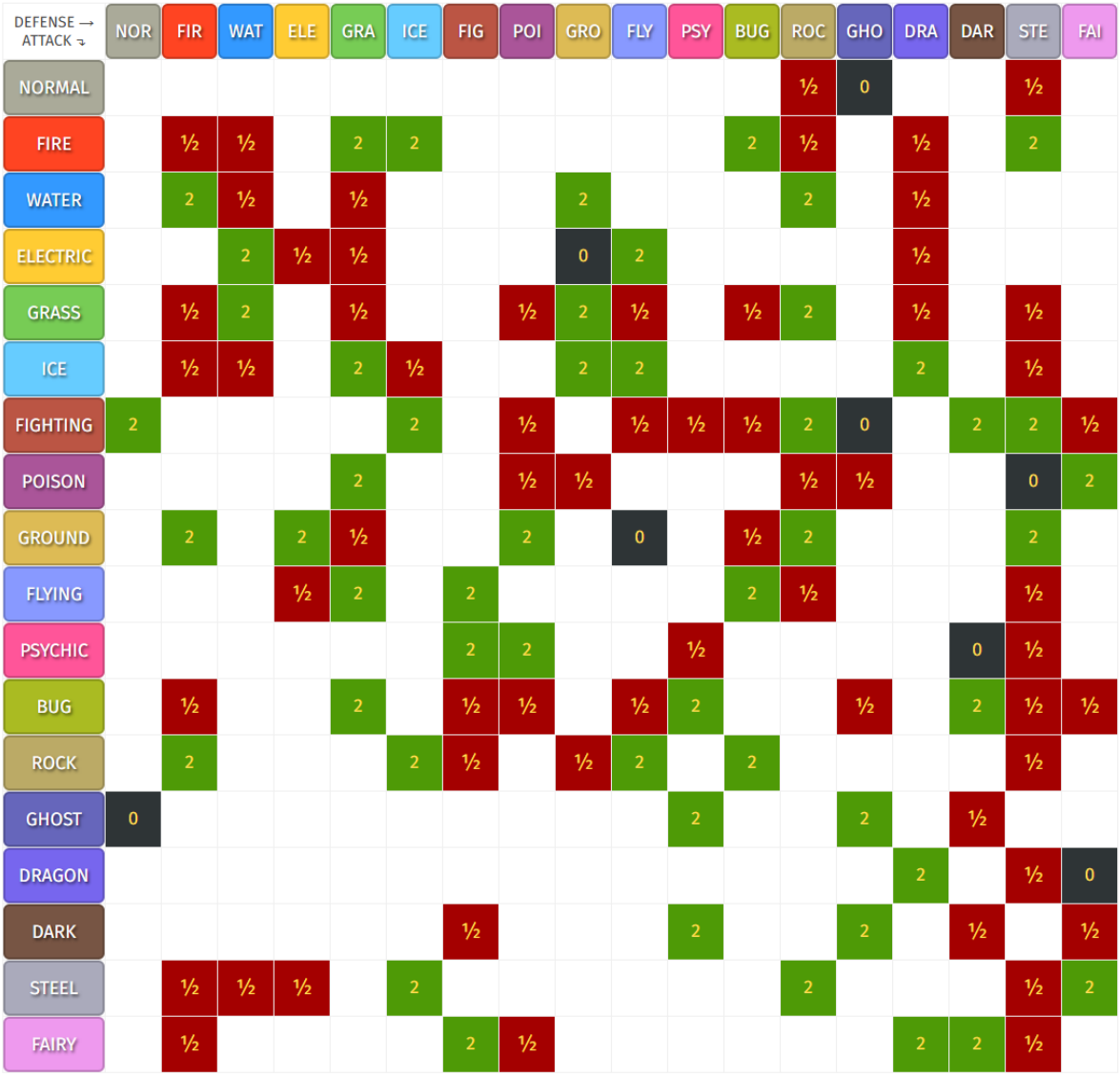
Who has ethically reviewed the project?
This project has been ethically approved via The University of Sheffield's Ethics Review Procedure, as administered by the Education department.

What if something goes wrong and I wish to complain about the research?
We take complaints seriously. If you wish to complain about how your treatment by myself as the main researcher or should something serious occur during or following your participation in the project (such as a serious reportable event), you should contact my Supervisor. If you feel your complaint has not been handled to their satisfaction, you may contact my Head of Department, who will then escalate the complaint through the appropriate channels.

If the complaint relates to how your personal data has been handled, information about how to raise a complaint can be found in the University's Privacy Notice: https://www.sheffield.ac.uk/govern/data-protection/privacy/general.

Thank you for taking your time reading this information sheet and considering taking part in this project.

Appendix 11 – Type Effectiveness Chart



DEFENSE → / ATTACK ↴	NOR	FIR	WAT	ELE	GRA	ICE	FIG	POI	GRO	FLY	PSY	BUG	ROC	GHO	DRA	DAR	STE	FAI
NORMAL													½	0			½	
FIRE		½	½		2	2						2	½		½		2	
WATER		2	½		½				2				2		½			
ELECTRIC			2	½	½				0	2					½			
GRASS		½	2		½			½	2	½		½	2		½		½	
ICE		½	½		2	½			2	2					2		½	
FIGHTING	2					2		½		½	½	½	2	0		2	2	½
POISON					2			½	½				½	½			0	2
GROUND		2		2	½			2		0		½	2				2	
FLYING				½	2		2					2	½				½	
PSYCHIC							2	2			½					0	½	
BUG		½			2		½	½		½	2			½		2	½	½
ROCK		2				2	½		½	2		2					½	
GHOST	0										2			2		½		
DRAGON															2		½	0
DARK							½				2			2		½		½
STEEL		½	½	½		2							2				½	2
FAIRY		½					2	½							2	2	½	

Pokémon Database (2020)

Appendix 12 – Overview of Progress (2019)

	May	June	July	August	September
Trainer Level	25	27	33	34	35
Experience Points	770,123	1,207,880	3,834,090	4,676,555	6,295,053
Progress to Level 40	3.9%	6.0%	19.2%	23.4%	31.5%
Total Pokémon Caught	1,792	2,197	3,802	4,449	4,923
Stardust	601,438	698,535	990,456	1,114,090	1,232,001
Shiny Pokémon	1	2	6	6	7
Gym Badges	B: 30 S: 0 G: 0	B: 42 S: 1 G: 0	B: 81 S: 5 G: 0	B: 101 S: 8 G: 2	B: 126 S: 6 G: 4

Key:

B = Bronze

S = Silver

G = Gold

Appendix 13 – Pokédex Medals (2019)

Medal Name:	Targets	May	June	July	August	Sept
Kanto	B: 5 S: 50 G: 100 T: 151	86	93	122	137	143
Johto	B: 5 S: 30 G: 70 T: 100	43	57	71	78	84
Hoenn	B: 5 S: 40 G: 90 T: 135	46	54	76	85	105
Sinnoh	B: 5 S: 30 G: 80 T: 107	18	28	54	60	65
Unova	B: 5 S: 50 G: 100 T: 156	n/a	n/a	n/a	n/a	7
	TOTAL:	193	232	323	360	404

Appendix 14 – Type-Specific Medals (2019)

Medal Name:	May	June	July	August	Sept
Schoolkid Normal	1,006	1,111	1,189	1,209	1,244
Black Belt Fighting	114	129	144	179	192
Bird Keeper Flying	569	604	668	707	755
Punk Girl Poison	532	549	580	612	642
Hiker Ground	47	68	256	384	580
Ruin Maniac Rock	47	79	278	356	570
Bug Catcher Bug	174	233	380	432	487
Hex Maniac Ghost	42	67	101	125	140
Depot Agent Steel	101	188	271	300	361
Kindler Fire	78	91	167	189	215
Swimmer Water	545	600	789	908	1,031
Gardener Grass	178	207	389	444	501
Rocker Electric	49	72	256	311	356
Psychic Psychic	133	160	218	349	458
Skier Ice	98	121	168	179	194
Dragon Tamer Dragon	13	15	42	44	46
Delinquent Dark	32	44	189	278	325
Fairy Tale Girl Fairy	39	74	168	201	230
	B = 7 S = 7 G = 4	B = 2 S = 10 G = 6	B = 1 S = 6 G = 11	B = 1 S = 4 G = 13	B = 1 S = 3 G = 14

Appendix 15 – Gameplay Medals (2019)

Medal	Targets	May	June	July	August	Sept
Jogger Number of kilometres walked	B: 10 S: 100 G: 1,000	690.5	800.4	1,009.9	1,334.5	1,447.7
Collector Number of Pokémon caught	B: 30 S: 500 G: 2,000	1,792	2,197	3,802	4,449	4,923
Scientist Number of Pokémon evolved	B: 3 S: 20 G: 200	156	221	309	341	367
Breeder Number of Eggs hatched	B: 10 S: 100 G: 500	112	133	193	233	262
Backpacker Number of PokéStops visited	B: 100 S: 1,000 G: 2,000	875	1,085	2,004	2,109	2,241
Pokémon Ranger Number of completed Field Research tasks	B: 10 S: 100 G: 1,000	69	89	181	209	238
Battle Girl Number of Gym battles fought	B: 10 S: 100 G: 1,000	113	143	170	222	243
Ace Trainer Number of times trained	B: 10 S: 100 G: 1,000	0	10	10	20	22
Fisherman Number of big Magikarp caught	B: 3 S: 50 G: 300	10	10	12	13	16
Youngster Number of tiny Rattata caught	B: 3 S: 50 G: 300	11	18	19	19	22
Pikachu Fan Number of Pikachu caught	B: 3 S: 50 G: 300	19	25	26	29	29
Unown Number of Unown caught	B: 3 S: 10 G: 26	0	7	7	7	7
Berry Master Number of Berries fed at Gyms	B: 10 S: 100 G: 1,000	78	299	565	888	936
Gym Leader Number of hours defended at Gyms	B: 10 S: 100 G: 1,000	83	167	370	489	551
Pilot Distances earned across trades	B: 1,000 S: 100,000 G: 1,000,000	52	52	1,212	1,212	1,212
Champion Number of Raids won	B: 10 S: 100 G: 1,000	3	14	43	61	63
Battle Legend Number of Legendary Raids won	B: 10 S: 100 G: 1,000	4	9	37	41	44
Idol Number of Best Friends registered	B: 1 S: 2 G: 3	0	0	0	2	4
Gentleman Number of Trades	B: 10 S: 100 G: 1,000	4	8	16	16	16
Great League Veteran Number of victories in the Great League	B: 5 S: 50 G: 200	0	0	0	0	0

Medal	Targets	May	June	July	August	Sept
Ultra League Veteran Number of victories in the Ultra League	B: 5 S: 50 G: 200	0	0	0	0	0
Master League Veteran Number of victories in the Master League	B: 5 S: 50 G: 200	0	0	0	0	0
Cameraman Number of surprise encounters	B: 10 S: 50 G: 200	0	26	26	26	32
Hero Number of Team GO Rocket victories	B: 10 S: 100 G: 1,000	n/a	n/a	n/a	11	12
Purifier Number of Pokémon purified	B: 5 S: 50 G: 500	n/a	n/a	n/a	8	9
		B = 7 S = 5 G = 0	B = 8 S = 6 G = 2	B = 10 S = 5 G =4	B = 12 S = 6 G =4	B = 12 S = 5 G =5